**ITELEC1 REVIEWER**

**First Mobile**

* The **first mobile phone** was the **Motorola DynaTAC 8000X**, released in **1983**.
* It was bulky, heavy (about 2.5 pounds), and offered only **30 minutes of talk time**.
* Cost: around $4,000, making it a luxury item.

**IBM Simon**

* Released in **1994**, the IBM Simon Personal Communicator is often called the first smartphone.
* Combined a mobile phone with a **touchscreen PDA** (Personal Digital Assistant).
* Could send **emails**, **faxes**, and **notes**.

**Nokia 3310**

* Released in **2000**, famous for its **durability** and **long battery life**.
* Had **SMS**, **customizable ringtones**, and the **Snake II game**.
* Sold over **126 million units**, making it one of the best-selling phones ever.

**Motorola DynaTAC**

* Launched in **1983**, the **first commercially available mobile phone**.
* Nicknamed the “**brick phone**” because of its size.
* Symbol of wealth and innovation in the **1980s**.

**Apple iPhone**

* Introduced in **2007**, revolutionized smartphones with its **touchscreen interface**.
* Eliminated physical keyboards, relying on a **multi-touch display**.
* Combined **phone**, **internet**, and **media player** in one device.

**SMS (Short Message Service)**

* A system that allows sending **text messages** between mobile devices.
* Uses **GSM (Global System for Mobile Communications)** networks.
* Introduced in the **1990s**.

**Developer for GSM standard for SMS**

* **Friedhelm Hillebrand** and **Bernard Ghillebaert** helped develop the SMS standard for GSM networks.

**Character limit for SMS text messages**

* Limited to **160 characters** per message.
* This was chosen because it fit well into the GSM protocol.

**First text message sent (who, when, what)**

* Sent on **December 3, 1992**, by **Neil Papworth**.
* The message: “**Merry Christmas**”.

**Advantages of SMS over voice calls**

* Cheaper and more accessible.
* Works even with weak signals.
* Non-intrusive—messages can be read anytime.

**Software programs designed for mobile devices**

* Known as **mobile applications (apps)**.
* Examples: games, productivity tools, communication apps.
* Designed to run on operating systems like **iOS, Android, Symbian**.

**Snake Game**

* First appeared in **1997** on Nokia 6110.
* One of the earliest and most iconic **mobile games**.
* Simple but addictive, boosting mobile gaming’s popularity.

**First Smartphone**

* The **IBM Simon Personal Communicator (1994).**
* Combined phone functions with **PDA features**.

**IBM Simon Personal Communicator**

* Features: **touchscreen, calendar, contacts, email, fax**.
* Battery life was limited (about 1 hour).
* Ahead of its time but expensive and bulky.

**A key feature distinguished the Apple iPhone**

* Its **multi-touch capacitive touchscreen**.
* Allowed gestures like **pinch-to-zoom**.

**Apple App Store provided for developers to create app**

* Launched in **2008**.
* Gave developers a **platform to distribute apps** globally.
* Started the **modern app economy**.

**Programming philosophy made Java popular**

* “**Write once, run anywhere**” – code written in Java can run on different devices with little modification.

**Company involved in Symbian OS**

* **Nokia** was the leading company behind **Symbian OS**.

**Reason Symbian’s decline in mobile app development**

* **Complicated for developers**, slow updates, and lack of user-friendly features compared to **iOS and Android.**

**Major impact of the App Store on app development**

* Created a **global marketplace** for developers.
* Lowered barriers to entry for app creators.
* Boosted the growth of **mobile apps industry**.

**How App Store simplified app distribution for users**

* Centralized place to **download, update, and manage apps**.
* Ensured **security and quality control**.

**Aspect of Android that attracted developers**

* **Open-source model** allowed customization.
* Developers could create apps with fewer restrictions.

**Official app marketplace for Android and Apple**

* Apple → App Store
* Android → Google Play Store

**Android’s open-source model enable manufacturers to do**

* Customize the OS to fit different devices.
* Make a wide variety of **smartphones and tablets**.

**Result of Android’s diverse range of developers**

* Huge variety of apps and devices.
* Encouraged innovation but also led to **fragmentation**.

**Apple App Store emphasize in design guidelines**

* Consistency, simplicity, user experience, and quality.

**Google Play Store offer in terms of app design**

* **More flexibility** and **creative freedom** for developers.

**Potential outcome of stricter Apple guidelines**

* Higher quality apps, but less freedom for developers.

**Potential outcome of more open Google Play environment**

* **More variety of apps**, but sometimes **lower quality control**.

**Curated approach of the Apple App Store fostered**

* A **trusted ecosystem** with apps that follow strict quality standards.

**Candy Crush Saga**

* Launched in **2012** by **King.**
* Became one of the **most popular puzzle games** worldwide.

**Monetization model of Candy Crush Saga popularized**

* **Freemium model**: free to play but with **in-app purchases**.

**Impact of Angry Birds & Candy Crush**

* Showed that **mobile gaming** could be **highly profitable**.
* Attracted more investment in **casual gaming**.

**Advantage feature of mobile devices (Instagram & Snapchat)**

* **Camera integration** → easy photo/video sharing.

**Key characteristic of mobile social media apps**

* **Instant communication** (real-time messaging, posting).

**Instagram & Snapchat emphasize in content**

* **Visual content**: photos, videos, and short clips.

**Social media apps facilitate in terms of community**

* Help users **connect, share, and interact** globally.

**Result of individuals sharing thoughts online**

* More voices heard, influence on society and culture.

**Social media influenced language**

* Created **slang, abbreviations, emojis, hashtags**.

**AI in apps to make them smarter**

* Used for **recommendations, personalization, and predictions**.
* **Example**: Netflix suggestions, TikTok algorithm.

**AI-powered chatbots**

* Provide **customer support and automated assistance**.
* **Example**: Messenger bots, Siri, Google Assistant.

**AR (Augmented Reality)**

* **Definition**: AR overlays **digital elements** (images, text, 3D models) onto the real world using a device’s camera.
* **Examples**: Pokémon Go, Snapchat filters, IKEA app (furniture preview).

**VR (Virtual Reality)**

* **Definition**: VR immerses users in a **completely virtual environment** using special devices like **VR headsets**.
* **Examples**: Oculus Rift, PlayStation VR, VRChat.

**One way AR and VR make apps more engaging**

* By providing **interactive and immersive experiences**, making users feel more connected to the app’s content.
* **Example**: AR can let users “try on” clothes virtually, while VR can simulate real-world activities like flying or exploring space

**Utility of AR in apps**

* **Enhances real-world tasks** with extra information or visuals.

Uses:

* **Education**: interactive learning (e.g., anatomy AR apps).
* **Shopping**: previewing furniture, clothes, or makeup.
* **Navigation**: AR maps showing directions in real-world view.

🕹️ **Utility of VR in apps**

* **Immerses users** in simulated experiences.

Uses:

* **Gaming**: realistic 3D worlds.
* **Training**: flight simulators, medical practice.
* **Virtual tourism**: exploring places without traveling.