

History of Tablet Computing



APPLE IPAD

Portable Computing

Although tablet computers are perceived as an invention of recent years, the tablet concept has existed in rudimentary forms since the 1960's. The modern tablet has evolved from these original concepts and in some cases have taken quite divergent paths.



Touch-based Inputs

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1. Pen-based Input
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The tablet computing concept has its origins in the 1960s as a rough concept first put forward by Alan Kay. This original idea was termed the Dynabook but was not put into any production at the time. The idea however set the early ground work for the idea of a highly mobile computing device for mass consumption.

1. Pen-based Input

The first commercial portable computers that most resembled the tablets of today used a pen based input methodology. Effectively a pen replaced the mouse to allow the user select items on the screen and input text onto a displayed keyboard when needed. Both PenPoint OS and Windows for Pen Computing were available on the market in the early 90s, but both were basically a one to one migration from what a user could perform on a laptop computer of the time. Neither of these systems gained the level of traction seen today in the market, due to a variety of reasons, but the foremost was still the need for some sort of tether to synchronize data between the device and other systems.

At this same time Apple began to work on the Newton device. This was another pen based mobile tablet packaged with a specific operating system (Newton OS) for mobile computing. Although the project began as a general purpose computing device, it was re-engineered as a personal digital assistant (PDA) device and began that specific market.

2. Size

The early tablets were released from the late 80s to mid 90s and due to the technology of the time the form factor and relative size was generally quite larger than the devices of today. Most devices gravitated toward the ruggedized form factor with screen sizes being between 7 and 12 inches. (citation needed).

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3. Operating Systems

Initially, the tablet or pen based computing devices either used a Microsoft variant of Windows (3.1 through to XP) or a specific operating system that provided an personal assistant style devices. Microsoft released several pen based operating systems through the 90s, but each of these releases merely served to provide pen input on top of the standard Windows release of the time.

The second branch of tablets moved toward a set of PDA based operating systems. These systems included the Newton OS from Apple, Palm and several smaller players. These oper-

ating systems provided a more streamlined experience for the user who was primarily concerned with using a tablet style device as an electronic metaphor the datebooks of the time.



PDA versus Small PC

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- 1. Newton
- 2. Palm
- 3. Microsoft

The tablet market generally originated as a truly mobile concept of a general computing device but quickly split into two separate lines. The generic computing path was pushed by Microsoft and some Linux platforms and the PDA path was pushed by Palm and Apple with their respective platforms.

1. Newton (1993)

Apple's Newton platform truly originated the PDA market. The personal digital assistant was given to the device at the time by the CEO John Sculley. The Newton focused primarily on pen based input into specific applications that would aid a user in organizing facets of their life such as address book entries, notes and calendar appointments. Applications could be written for the device in a scripting language, but these applications were not at the level of diversity we see in today's marketplace.

Form and progression

The Newton family of devices like many other devices started as a fairly large device. The first devices to be released on the Newton platform was the MessagePad H1000 and weighed in

at 1.5 pounds with a screen size of 7 by 4 inches. Each subsequent devices released on the platform was generally lighter than the previous but screen sizes varied over time from smaller devices to much larger screens. The resolutions remained around 320 by 240 pixels to 480 to 320 with gray scale displays. This limited resolution and lack of color certainly limited the types of applications that could be considered truly useful on this platform.