Tablet Product and Market History

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“Insanity is doing the same thing over and over again but expecting different results.”

Time Line

- In the Beginning: 1970-1990
- The First Consumer (Pen) Tablet Frenzy: 1991-1993
- The First Tablet Crash: 1993-1994
- The Second Consumer Tablet (PC) Frenzy: 2001-2004
- The Second Tablet Crash (Slow Death): 2004-2009
- UMPCs: 2006 & MIDs: 2007
- Tablets for Vertical Applications: 2001-Present
- The Third Consumer Tablet Frenzy: 2010-Present
- Conclusions
In the Beginning: 1970-1990

- **Dynabook concept (1972)**
  - Alan Kay, PARC
  - 9”x12”, <4 lbs., $500, 1MB (500 pages), on-screen keyboard

- **Apple “Knowledge Navigator” concept (1987)**
  - Added voice-recognition and intelligent agents

- **Go (1987)**
  - Founded by Jerry Kaplan
  - Created PenPoint OS

- **GRiDPad (1989) – first tablet**
  - Created by Jeff Hawkins (Palm, Graffiti, Handspring...)
The First Consumer (Pen) Tablet Frenzy: 1991-1993

- Go’s PenPoint released (1992), spun off into Eo
- Windows for Pen Computing (1992)
  - Driven by fear of PenPoint (see Jerry Kaplan’s book “Startup”)
  - Tablets by NCR, Samsung, Fujitsu, Compaq, Toshiba, Eo, Momenta… mostly aimed at the consumer!
The Original IBM ThinkPad!

- **Model 700 slate**
  - April 1992 - October 1992
  - 10” VGA mono STN LCD
  - Wacom pen digitizer
  - Paper-like writing surface
  - Intel 386 @ 20 MHz
  - 4-8 MB RAM
  - 2 PC Card slots
  - 3.5 pounds
  - PenWindows or PenPoint

*These specs are typical of most of the tablets in this time frame*
The First Tablet Crash: 1993-1994

Why did the first tablet wave fail?

- Pen was measured against keyboard and mouse
  - Like touch sometimes is today!
- Handwriting recognition wasn’t good enough
- Hardware was underpowered
  - Same for notebooks, but it was more acceptable there
- Price was $500 - $1,000 more than equivalent notebook
- No wireless (too early), so limited mobility
- Windows OS was too big and not pen-centric
  - Like Windows 7 and touch today!
- Apps were primitive – although there were some, such as the InkWriter text editor that could even do reflow
  - Microsoft bought InkWriter and turned it into Journal on Tablet PCs

- The first PDA, but also a small tablet
  - It was originally a *platform for wireless communication* (too early!)
  - Handwriting recognition was grossly overemphasized

- Why did Apple kill the Newton?
  - No profit (business decision)
  - Newton == Sculley; Jobs 😞
  - Steve Jobs doesn’t like pens
  - MS & Apple conspiracy theory

August, 1993

- Tablets survived by going vertical
  - Sales force automation, utilities, insurance, healthcare, government, transportation, etc.

- Many vendors, but Fujitsu became dominant
  - Husky, Telxon, Microslate, Intermec, Symbol, Xplore, Walkabout
WebPads: 1999-2001
Smart Displays: 2002-2003

- Mobile thin client
  - Descended from the 1995 Zenith CruisePad
  - “WebPAD” = Web-based Personal Access Device (NatSemi)
    - Created as a way to sell NatSemi’s low-power CPUs

- 100% failure rate in the consumer market
  - A thin client is a very tough sell to almost everyone
    - And yet, Google is trying it again with the Chrome notebook…
  - A hardware BOM of $400 is much too high for a mobile thin client
The Second Consumer Tablet (PC) Frenzy: 2001-2004

- **Announced at Comdex 2000**
  - Slate, heavily influenced by Dick Brass’ work with eBooks (OEB → ePub)

- **Launched at Comdex 2001**
  - Still a slate
  - Forecast: Notebooks = 50% tablets in 2005

- **Early Tablet PCs (2002)**
  - Four slates and one convertible (Acer)
  - Microsoft and the PC OEMs got cold feet on slates
    - Not enough mass appeal
    - Bill Gates used a convertible

- **By 2005 there were >30 brands, 80% convertibles**
The Second Tablet Crash (Slow Death): 2004-2009

- Microsoft closed the Tablet PC blog in 2010...
- Why did the Tablet PC fail? ("fail" = <2M units/year)
  - No tablet (or ink) applications to motivate consumer purchase
  - Price was $500 - $1,000 higher than equivalent notebook
    - Sound familiar?
  - The product was too evolutionary and not revolutionary enough
    - A mouse-oriented OS that supported a pen and digital ink
      (basically Version 3 of Windows for Pen Computing)
  - Underpowered (to achieve mobility)
  - Zero consumer marketing from Microsoft
  - PC OEMs had zero understanding of the product or market
    - They were sheep blindly following Microsoft
UMPCs: 2006
MIDs: 2007

- **Ultra Mobile PC (UMPC)**
  - 7” tablet running Windows XP with a touch shell (“Tablet Pack”)
  - **Failed:** Rigid spec, no applications, low performance, high price

- **Mobile Internet Device (MID)**
  - UMPC with less restrictive hardware specs
  - **Failed:** Poorly understood product category, very high price
Tablets for Vertical Applications: 2001-Present

- Slate and convertible Tablet PCs were successful in vertical applications, just like in 1994-2000
The Third Consumer Tablet Frenzy: Apple iPad, 2010-Present

Why did Apple succeed when so many others failed?

- Availability of appropriate hardware *(finally!)*
- “Effortless elegance” and an immersive user experience
- Ease of use – Apple got the touch UI exactly right
- The rise of social media and networking
- Location subsystem – navigation, area search, tracking people
- Sharing subsystem – passing information & URLs between people
- The App Store™
- The increase in consumption of digital media
- The growth of casual (and addictive) games
- The desire for a “real” browser, better than any phone browser

Timing is everything!
Speaker’s opinion: Yes, to some extent

Apple (iOS) seems likely to build a very large business in tablets
  ● Apple’s distribution channel produces an inherent advantage
  ● But business missteps – such as forcing all suppliers of eBook-reader apps that run on iOS out of business (the 30% tax) – can be serious

Android has the potential to become a successful tablet OS
  ● But it’s less mature than iOS and MUCH less controlled (fragmented)
  ● Copying Apple’s UI is not a guaranteed path to success

But very few (if any) device OEMs have Apple’s understanding of and focus on the tablet user experience
  ● Most current tablet forecasts are too optimistic
Conclusions

- Sometimes it’s *just too early* for the hardware
- When the shepherd’s lost, the sheep are in trouble
- Tablets today are all about the *total user experience*, including the *ecosystem*, not just the hardware and software
- Maybe the third time really is a charm…