

General Magic

The most important company in
Silicon Valley that nobody's ever
heard of.



General Magic

Andy Hertzfeld, Bill Atkinson, Joanna Hoffman and an extraordinary group of engineers went on to develop a smart phone in 1995 that has been described as a precursor of the iPhone and Android, and an intelligent-agent based cloud.

“It’s the most famous company or the most important company in Silicon Valley that nobody’s ever heard of.”

John Scully

“The most important dead company in Silicon Valley”

Forbes

“Fairchild Semiconductor of the 90s. The fountain from which much of today's smartphone and online communication and commerce technology sprang”

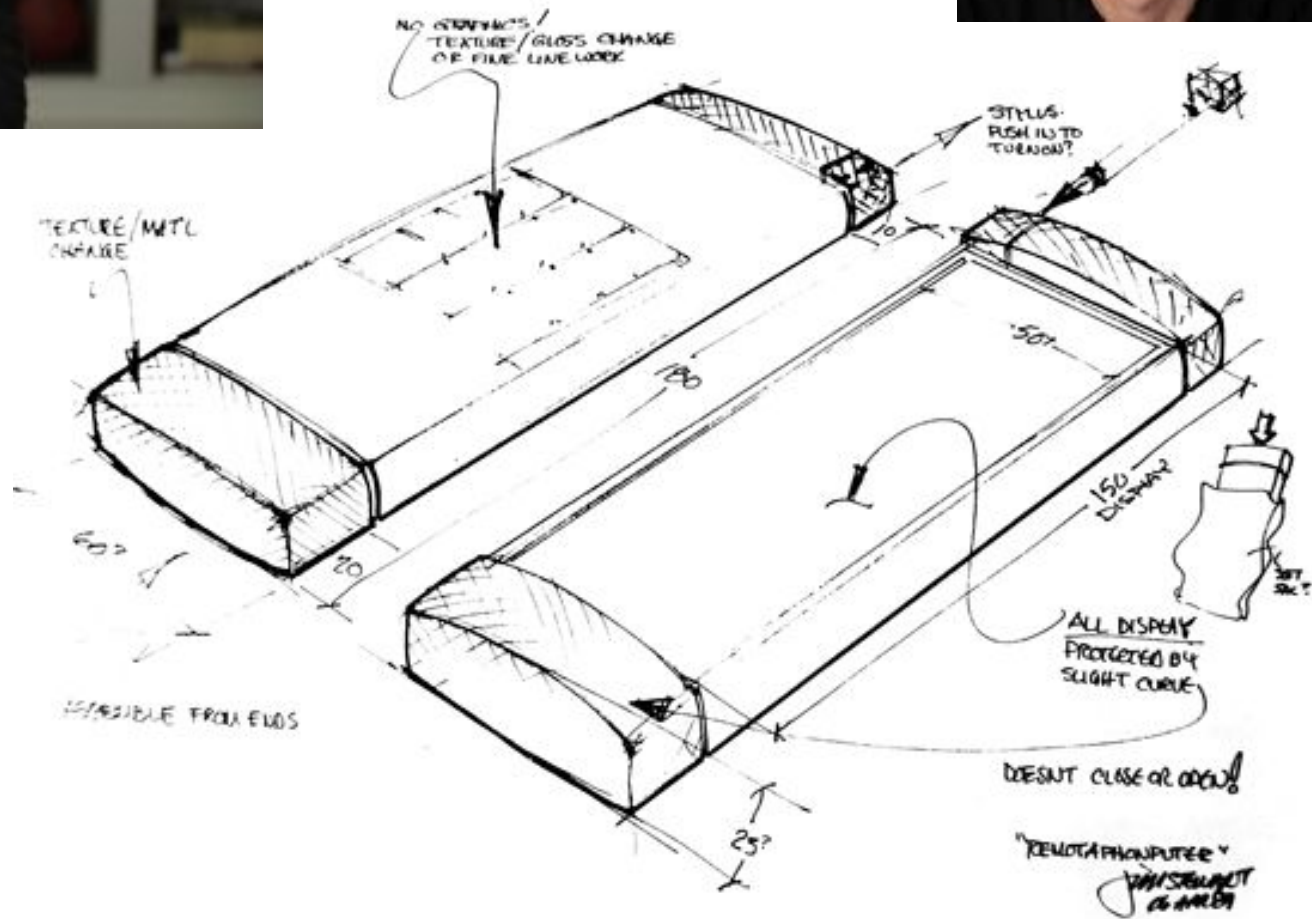
The Whiz Kids Meet Darth Vader

Apple's Macintosh Takes On IBM

Rolling Stone

March 1, 1984





"This is a very beautiful object. It must be beautiful. It must offer the kind of personal satisfaction that a fine piece of jewelry brings. It will have a perceived value, even when it is not being used. It should offer the comfort of a touchstone. The tactile satisfaction of a seashell. The enchantment of a crystal."

— Marc Porat, 1989



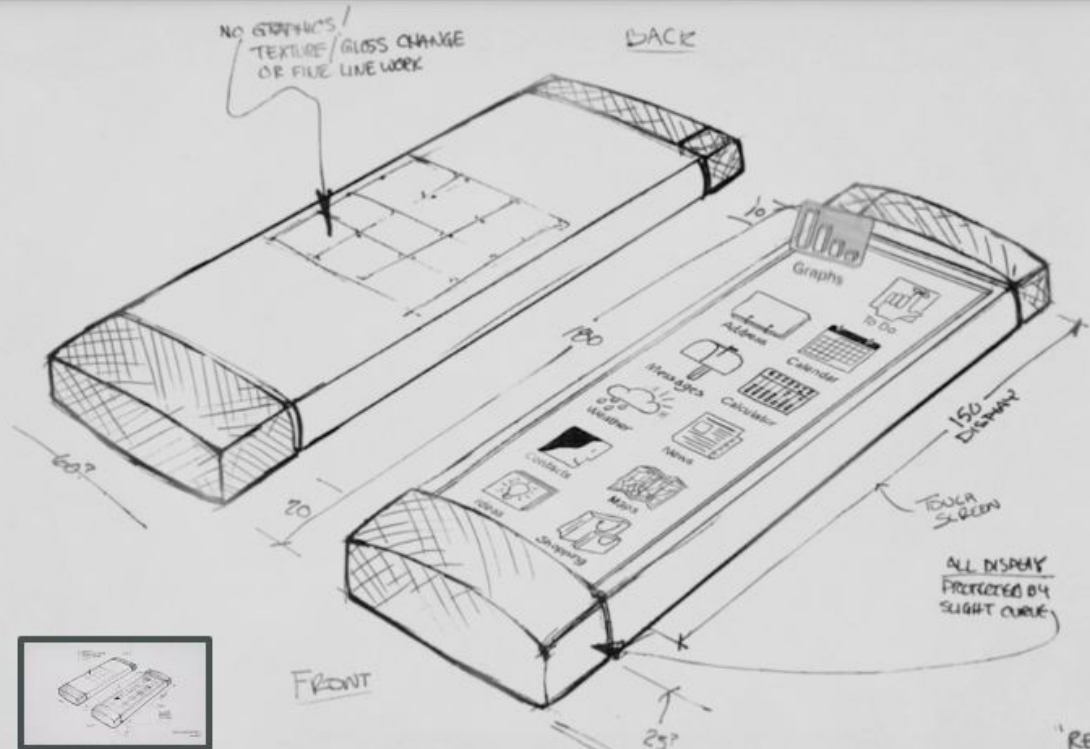
<https://computerhistory.org/blog/computing-for-the-whole-world-a-conversation-with-ipod-iphone-inventor-tony-fadell/>

The Origins

- Apple in the late 80'
 - John Sculley is the CEO
 - Steve Jobs fired
 - Mac core team in exile and wanting to build the next great thing
 - Sculley looking for the next big thing
- Marc Porat
 - MBA refugee from the Aspen Institute
 - Philosopher, not a technologist
 - "Where do we go after the personal computer?" PhD thesis
 - Joins Apple in 1988

1989: Pocket Crystal

- Marc Porat
 - walking around with some diagrams and a *balsa model of what looks like the smartphone that we hold today*
 - *The Pocket Crystal strategy, thick as a phone book, a clearly outlined and seductively convincing document*
 - his sketch precisely matches the iPhone 6S from 2015
 - Internal team “Pocket Crystal” created
 - Andy Hertzfeld, Bill Atkinson, Joanna Hoffman, Suzan Kare and most of MacOS 7 team join



Book Shelf



Camera



Games



Quotations



Clock



Weather



Money



Phone



Clip Art



Messages

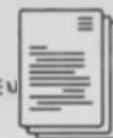


Contacts

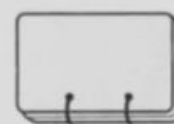


Ideas

REV



Documents



Address



Maps



Shopping



Graphs



Calendar



News



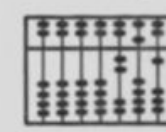
File Index



To Do



Travel Agent



Calculator



Drawings

1990: General Magic

- John said, “Well, let’s do it. Let’s do it inside of Apple.”
- Marc said, “Well, if we’re going to do it, we can’t do it in Apple. It will just be killed by too many cooks.”
- General Magic spun off as an independent company
- Employees called themselves "Magicians".
 - Meeting rooms named by famous illusionists ("Houdini room" ...)
- Rabbits roam the offices to inspire creativity

General Magic explained

- “Any sufficiently advanced technology is indistinguishable from magic.”
 - Arthur C. Clark
- “There was General Electric, there was General Motors, we’ll be **General Magic.**”

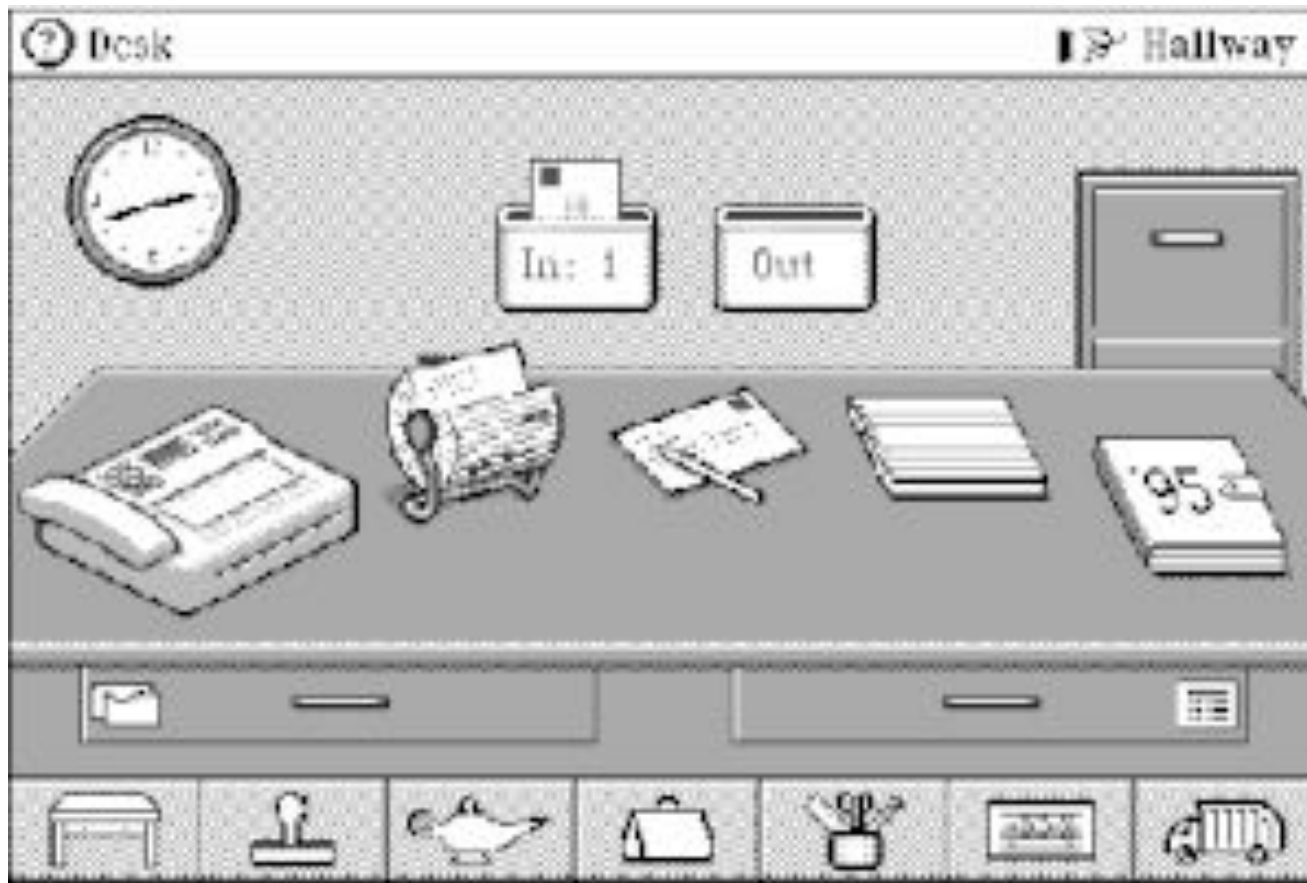
1990-1993: Early years

- Operated in near-complete secrecy, employees forbidden to speak about what they do
- By 1992, Sony, Motorola, Matsushita, Philips and AT&T Corporation become partners and investors in General Magic
- "Silicon Valley's most closely watched start-up company."
 - February 8, 1993, New York Times
- "Here's Where Woodstock Meets Silicon Valley"
 - February 27, 1993, New York Times
 - Employees tell newly hired manager "We don't have managers here"
- "Magic Cap" announced
- In 1993, John Sculley announces Apple Newton
 - General Magic forced to ship to market earlier
 - Employees work 80 – 120 hours/wk
 - "Ship or die"

Magic Cap

Magic Communicating Applications Platform

object-oriented operating system for PDAs



1994: General Magic Alliance

- Cable & Wireless, France Telecom, NTT, Northern Telecom, Toshiba, Oki, Sanyo, Mitsubishi and Fujitsu.
- Each of the "Founding Partners" invested up to \$6 million
- Summer 1994: Motorola Envoy and Sony Magic Link announced

Sony Magic Link

- \$800
- MC68349 16 MHz Motorola Dragon
- 4MB Random Access Memory and PC Card
- 480 x 320 pixel LCD
- Touchscreen (stylus-based)
- 2400 bit/s modem
- Apps
 - Messages
 - Address Book
 - Clock and Calendar
 - Notebook
 - Spreadsheet
 - Datebook
 - Phone
 - Fax machine (Kobes Japan model only)
 - Pocket Quicken
 - Sony AV Remote Commander
 - Calculator
 - AT&T PersonaLink Services
 - America Online mail client
- **No browser, no internet, connected to a private AT&T network !!!!**



1995: IPO

- The company launched an IPO on NASDAQ in February 1995
- \$96 million in the IPO
- total of \$200 million from 16 different investors.
- Shares at \$32
- Goldman Sachs banker strips and offers to sell his shirt to get a share in the IPO
- ... and by 1998, the shares were at \$1

1995 - 2004: The End

- Nobody is buying the devices, just 3000 units sold
 - mostly to friends and family
- By end of 1995 the company was a shell of its former self and most of the original developers had left
- Marc Porat leaves in 1996
- Tony Fadell leaves to work on iPod and iPhone
- Andy Rubin leaves to start Android Inc.
- The remains of the original company were liquidated in 2004

Why it didn't work?

- When you're trying to achieve perfection, you can't do it all at once
 - If General Magic had iterated in a way that the iPod did, they could quite easily have done that rather than trying to put five years of work just into one device.
- External pressures
 - John Sculley, who was almost the father of General Magic in terms of spinning it out of Apple, betrayed General Magic by taking some of the products, thoughts, some of the marketing plan and releasing the Newton, which was a direct competitor to the General Magic device.
- World Wide Web
 - If you're trying to create a proprietary form of the internet in which you pay to use it, and then another thing comes out that is free to use, you're on the losing side of an argument.

Lessons Learned

- Even if you have
 - Best people
 - Enthusiastic employees willing to die to ship the product
 - Strong Vision
 - Charismatic leader
 - Great PR
 - Industry support
 - Investor funding

You can still fail.

Legacy

In 1994, developed:

- USB precursor,
- software modems,
- small touchscreens,
- touchscreen controller ICs,
- ASICs,
- multimedia email,
- networked games,
- streaming TV
- early e-commerce

- **Tony Fadell**
 - designed the first iPod music player
 - led the hardware design of the **iPhone**
 - founded Nest Lab
- **Andy Rubin**
 - Founder of **Android Inc.**
- **Pierre Omidyar**
 - Founder of eBay
- And many others
 - Twitter CTO, Blackberry SVP, Head of Safari Browser, WebTV CEO, ...



CTO TWITTER

SVP BLACKBERRY & SAMSUNG

VP ENGINEERING eBAY

HEAD OF GOOGLE
SPEECH RECOGNITION

GOOGLE CIRCLES



HEAD OF SAFARI BROWSER



HEAD OF AI AT APPLE



WEBTV FOUNDER & CEO



A photograph of three men in a workshop or office environment. The man on the left is wearing a white t-shirt with a graphic and is looking down at a device. The man in the center is wearing a striped shirt and is looking towards the right. The man on the right is wearing a red shirt and is looking upwards. There are shelves with various items in the background.

IPHONE HARDWARE ARCHITECT

IPOD HARDWARE ARCHITECT

NEST FOUNDER & CEO

Further reading

- https://en.wikipedia.org/wiki/General_Magic
- <https://www.wired.com/1994/04/general-magic/>
- https://en.wikipedia.org/wiki/Magic_Link
- https://en.wikipedia.org/wiki/Magic_Cap
- <https://www.generalmagicthemovie.com/>
- <https://computerhistory.org/events/computing-your-pocket/>
- <http://www.folklore.org/>