

# Return of the Mac

paulgraham.com · Paul Graham · 2005-03 · [source](#)

---

|

March 2005

All the best hackers

I know are gradually switching to Macs. My friend Robert said his whole research group at MIT recently bought themselves Powerbooks. These guys are not the graphic designers and grandmas who were buying Macs at Apple's low point in the mid 1990s. They're about as hardcore OS hackers as you can get.

The reason, of course, is OS X. Powerbooks are beautifully designed and run FreeBSD. What more do you need to know?

I got a Powerbook at the end of last year. When my IBM Thinkpad's hard disk died soon after, it became my only laptop. And when my friend Trevor showed up at my house recently, he was carrying a Powerbook identical to mine.

For most of us, it's not a switch to Apple, but a return. Hard as this was to believe in the mid 90s, the Mac was in its time the canonical hacker's computer.

In the fall of 1983, the professor in one of my college CS classes got up and announced, like a prophet, that there would soon be a computer with half a MIPS of processing power that would fit under an airline seat and cost so little that we could save enough to buy one from a summer job. The whole room gasped.

And when the Mac appeared, it was even better than we'd hoped. It was small and powerful and cheap, as promised. But it was also something we'd never considered a computer could be: fabulously well designed.

I had to have one. And I wasn't alone. In the mid to late 1980s,

all the hackers I knew were either writing software for the Mac, or wanted to. Every futon sofa in Cambridge seemed to have the same fat white book lying open on it. If you turned it over, it said "Inside Macintosh."

Then came Linux and FreeBSD, and hackers, who follow the most powerful OS wherever it leads, found themselves switching to Intel boxes. If you cared about design, you could buy a Thinkpad, which was at least not actively repellent, if you could get the Intel and Microsoft stickers off the front. [1]

With OS X, the hackers are back. When I walked into the Apple store in Cambridge, it was like coming home. Much was changed, but there was still that Apple coolness in the air, that feeling that the show was being run by someone who really cared, instead of random corporate deal-makers.

So what, the business world may say. Who cares if hackers like Apple again? How big is the hacker market, after all?

Quite small, but important out of proportion to its size. When it comes to computers, what hackers are doing now, everyone will be doing in ten years. Almost all technology, from Unix to bitmapped displays to the Web, became popular first within CS departments and research labs, and gradually spread to the rest of the world.

I remember telling my father back in 1986 that there was a new kind of computer called a Sun that was a serious Unix machine, but so small and cheap that you could have one of your own to sit in front of, instead of sitting in front of a VT100 connected to a single central Vax. Maybe, I suggested, he should buy some stock in this company. I think he really wishes he'd listened.

In 1994 my friend Koling wanted to talk to his girlfriend in Taiwan, and to save long-distance bills he wrote some software that would convert sound to data packets that could be sent over the Internet. We weren't sure at the time whether this was a proper use of the Internet, which was still then a quasi-government entity. What he

was doing is now called VoIP, and it is a huge and rapidly growing business.

If you want to know what ordinary people will be doing with computers in ten years, just walk around the CS department at a good university. Whatever they're doing, you'll be doing.

In the matter of "platforms" this tendency is even more pronounced, because novel software originates with great hackers, and they tend to write it first for whatever computer they personally use. And software sells hardware. Many if not most of the initial sales of the Apple II came from people who bought one to run VisiCalc. And why did Bricklin and Frankston write VisiCalc for the Apple II? Because they personally liked it. They could have chosen any machine to make into a star.

If you want to attract hackers to write software that will sell your hardware, you have to make it something that they themselves use. It's not enough to make it "open." It has to be open and good.

And open and good is what Macs are again, finally. The intervening years have created a situation that is, as far as I know, without precedent: Apple is popular at the low end and the high end, but not in the middle. My seventy year old mother has a Mac laptop. My friends with PhDs in computer science have Mac laptops. [2] And yet Apple's overall market share is still small.

Though unprecedented, I predict this situation is also temporary.

So Dad, there's this company called Apple. They make a new kind of computer that's as well designed as a Bang & Olufsen stereo system, and underneath is the best Unix machine you can buy. Yes, the price to earnings ratio is kind of high, but I think a lot of people are going to want these.

[1] These horrible stickers are much like the intrusive ads popular on pre-Google search engines. They say to the customer: you are unimportant. We care about Intel and Microsoft, not you.

[2] Y Combinator  
is (we hope) visited mostly by  
hackers. The proportions of OSes are:  
Windows 66.4%, Macintosh 18.8%, Linux 11.4%, and FreeBSD 1.5%.  
The Mac number is  
a big change from what it would have been five years ago.

|