The Asus Eee: How Close Did the World Come to a Linux Desktop?

by Jeff Siegel (/users/jeff-siegel) on November 2, 2018

It was white, not much bigger than my hands held side by side, weighed about as much as a bottle of wine, and it came in a shiny, faux-leather case. It was the $199 Asus Eee 901, and I couldn't believe that a computer could be that powerful, that light and that much fun.

This is the story of the brief, shining history of the Asus Eee, the first netbook—a small, cheap and mostly well-made laptop that dominated the computer industry for two or three years about a decade go. It's not so much that the Eee was ahead of its time, which wasn't that difficult in an industry then dominated by pricey and bulky laptops that didn't always have a hard drive and by desktop design hadn't evolved much past the first IBM 8086 box.

Rather, the Eee was ahead of everyone's time. It ran a Linux operating system with a tabbed interface and splashy icons, and the hardware included wireless, Bluetooth, a webcam and an SSD hard drive—all in a machine that weighed just 2.5 pounds. In this, it teased many of the concepts that tech writer Mark Wilson says we take for granted in today's cloud, smartphone and Chromebook universe.

The Eee was so impressive that even Microsoft, whose death grip on the PC world seemed as if it would never end, took notice. As everyone from Dell to HP to Samsung to Toshiba to Sony to Acer to one-offs and "never-weres" raced netbooks into production, Microsoft offered manufacturers a version of Windows XP (and later a truncated Windows 7) to cram onto the machines. Because we can't have the masses running a Linux OS, can we?

"The Eee gave regular people something they couldn't have before", says Dan Ackerman, a longtime section editor at CNET who wrote some of the website's original Eee and netbook reviews. "Laptops had always been ridiculously expensive. The Eee wasn't, and it gave regular people a chance to buy a laptop that was smaller and more portable and that they could be productive with. I always gave Asus credit—they understood the role of form and function."

Netbook History

The computer world never had really seen anything like the first Eee, which didn't even have a name when it was launched in 2007 (although it later would be called both the 701 and the 4G). In fact, say those who reviewed the 701, it wasn't so much a product but a proof of concept—that Asus could make something that small and that cheap that worked.

There had been small laptops before, of course, like the Intel Classmate PC and the OLPC X0-1, each part of the One Laptop per Child project. But those were specialized machines designed to bring computing and the internet to students throughout the world, and not necessarily consumer products.

The netbook's immediate predecessors were probably the palmtop and the personal digital assistant, or PDA. Those were handheld devices like the Palm 7 and the HP Jornada 720 that did some computer things, including word processing and email (and faxes in the late 1990s models). But they were slow and under-powered (remember Windows CE?), and it wasn't easy to work with the tiny screens. In many ways, they were unsophisticated smartphones that couldn't make phone calls.

I used a Jornada 720 around the turn of the century. It was cheaper and more reliable than my previous two laptops, which were buggy, crash-prone and always seemed to have something wrong with the disk drive. I could sort of type on the Jornada's downsized QWERTY keyboard, and it synced with my desktop (though the modem never really worked).

But the netbook's true predecessor was almost certainly Radio Shack's legendary TRS-80 model 100—or as we lovingly called in in the newspaper business, the Trash 80. It ran on Microsoft Basic and had a more or less full-sized keyboard, a monochromatic screen that displayed about ten lines of type and a 300-baud modem. The Trash 80 weighed about three pounds, and I lugged it to football games, bike races and city council meetings in the late 1980s. There, I would write the story, hook the modem up to a phone jack (acoustic couplers before that) and send it to the paper by hitting a combination of buttons located just above the keyboard. Would that any of my laptops had worked that well.

In other words, there hadn't been anything quite like the Eee 701 in 20 years.

"I can't say I remember exactly walking into the room when Asus showed us the first Eee, but I do remember that I had never seen anything quite like it", says Ackerman. "It was an amazing accomplishment for the price."

Yes, the price. In 2005, the average laptop cost about $1,000, and you didn't get all that much for a grand—an HDD drive, wireless, a touchpad and maybe an optical drive. But you also got a bulky machine that weighed five or six pounds with crummy battery life—often as little as two hours.

The 701, on the other hand, cost $199, weighed half as much as the $1,000 laptop, sometimes had better battery life, and it came with some of the same hardware (minus the optical drive). And, you could argue that its tiny SSD drive was an improvement over the era's 20 and 30GB laptop hard drives—quieter, less power hungry and more nimble. Yes, the processor wasn't as fast, it had less RAM, and the screen was smaller, but that didn't seem to matter.

"It was a crazy concept, but there was an incredible response", says Wilson, today a senior writer at Fast Company. "Within six months, it seemed like every computer maker was cloning it."

Get Me Linux

How did Asus get the price so low? Cutting the weight helped. Using cheaper materials for the body, keyboard and screen made a difference too, as did the less expensive processor and memory. But one of the most important factors was substituting Linux for Windows.

An Asus spokesman did not respond to several requests for information for this story, but those with knowledge of the company's thinking said choice of operating system was crucial in lowering the Eee's price. A Microsoft license, depending on who you talk to, could have cost almost as much as the netbook's suggested retail price. Even if Asus had absorbed some of the license fee, it would have been almost impossible to hit $199, then considered the sweet spot for pricing.

Enter Xandros, the operating system that Asus used on the Linux-powered versions of the Eee. It was perhaps the machine's greatest asset and its biggest weakness. Since it was Linux, there was no Microsoft licensing fee, making it easier for Asus to hit $199. But Xandros was not quite open-source Linux—it was a commercial product from the same-named British company whose revenue came from "partnering" with OEMs. Which, of course, is what Microsoft did.

And, as anyone who knows anything about the Linux community will tell you, any open-source company with a Microsoft-like business plan can't really be open-source or true to the spirit of Linux. In this, Asus alienated the people who should have been the Eee's biggest supporters. Look on bulletin board and Reddit posts, and you'll still see some of the resentment at the choice of Xandros.

Xandros' other problem? It was just a little too Linux for the millions of people who bought it and who were used to Windows. It's not to say that Xandros didn't try—the company's mission was to be a Windows-like interface to Linux, and it was based on Debian, just like Ubuntu and Linux Mint.

But those of us who came to Linux through the Eee had never seen anything quite like Xandros. It was was funky, to say the least, and this comes from someone who had had his fill of Windows by then (Windows ME, anyone?). I was desperate to run something that didn't make me pound the keyboard in frustration at every crash, Control-Alt-Delete and hanging screen.

Today, a browser-based OS like Chrome is second nature; in 2007, it could be befuddling to anyone who grew up pointing and clicking in Windows 95. Xandros, save for the word processor, email and browser, was a mystery—to this day, I still don't know what something called mediaU was supposed to do. It was almost impossible to add new software, and if you wanted to do anything other than basic software updates, you had to use the command line. I had been through that with DOS—I didn't want to do it again. And, of course, support was non-existent.

To be fair, Asus was limited in its choices. Mint was still in its early stages, Ubuntu wouldn't release its netbook OS until 2009, and Fedora probably wasn't quite right for something like this. But, as Wilson says with a laugh: "Xandros was the kind of Linux that reminded people why they didn't want to use Linux."

Running Scared

It's almost impossible to believe, a decade later, how popular netbooks were in the wake of the Eee. Way past popular, actually: the netbook was the best-selling computer in the world in 2009, with seven-fold growth from 2008 and some 20 million sold. That accounted for almost 10% of the entire computer market at a time when the recession saw desktop computer sales fall 12%, the worst decline in its history.

Asus gloried in the Eee's success. It updated the netbook every couple of months, adding power and improving screen size and resolution. CNET reviewed eight versions in 12 months, and even the most expensive cost one-half of a typical laptop of the time.

The 900, the first real production model, had a 9" screen, a 4GB SSD and 1 GB of RAM. I literally wore it out, using it until I cracked the keyboard and broke the A key off. I replaced it with the Eee 1005 a year later, which had a 10" screen, 2GB of RAM, a 160GB HHD and four hours of battery life. I still have it, and it works as well as it ever did. The 1101, meanwhile, had an 11.6" screen and a 160GB HDD and still weighed just three pounds.

Netbooks and the Eee were so successful, in fact, that research analysts who followed Apple—whose top executives had famously called the machines "junk"—warned the company that it had better do something to compete. Mac sales fell in 2008, the first decline in five and a half years, and an analyst told *Computerworld*: "Vendors are waking up to the fact that people respond to so-called 'good-enough' computing. They don't really need all the power of a Core 2 Duo CPU most of the time."

But Apple wasn't the only company that saw the netbook as a threat. So did Microsoft, whose abhorrence of Linux was part of the company's DNA (remember "Linux is a cancer"?). A Microsoft spokesman did not respond to several requests for information for this story, so it's difficult to know exactly what the company thought. But, says Wilson, "though I don't presume to speak for Microsoft, for about six months to a year, they had to be worried. There were not a lot of phenomenons in the laptop world at the time."

The Microsoft dilemma: it was phasing out Windows XP, which could and did run on some early netbooks, in favor of Windows Vista. But, reported the *New York Times* in April 2009, it was "downright embarrassing that Vista is too tubby to run well on on the best-selling laptops in the market". Hence, Microsoft had to find a way to cram the desktop version of Windows 7 onto a netbook.

Which it did, though the results left much to be desired. I "activated" the so-called Windows 7 Starter version on a friend's netbook; it literally took all night to install, clacking and churning and rebooting. And then rebooting some more. "They got Windows working on netbooks", says Ackerman, "and if it didn't work well, it worked well enough".

More important, Microsoft cut the Windows 7 licensing fee for netbooks by one-third. It was $75 a copy for a desktop, but only $25 for netbooks (which it had apparently charged for XP on netbooks too).

This was the beginning of the end. Wrote the *Times*: "[C]onsumers have shown their preference for Windows on netbooks....Linux went from almost 100 percent share on netbooks in the early days to just 20 percent after Microsoft started offering Windows XP on the systems."

A Fond Memory

So much for Linux for the masses. But worse was yet to come for the Eee: Apple released and refined the iPad and the iPod Touch during the next couple years. Even more important, it unveiled the iPhone 3GS in June 2009. One million 3GSes were sold in three days, and consumers—thanks to the revolutionary Apple app store—discovered they didn't need a computer to send email, listen to music or browse the web. And, at $99, the 3GS undercut the Eee on price. The modern smartphone had arrived.

The Eee and netbooks didn't go away immediately, of course. Genuine efforts were made to keep it relevant—Asus released the $500 1201 in 2010, with a 12.1" screen and more-or-less desktop resolution. The Linux community, meanwhile, offered operating systems like Ubuntu netbook, EasyPeasy/Ubuntu Eee, Jolicloud and Peppermint OS. But the 1201 wasn't so much a netbook as the forerunner to the ultrabook, and only those of us who wanted to run Linux instead of Windows would spend the time to install one of the new OSes over Windows and the few Xandros machines that were still being sold.

The end came in 2012, when Acer said it would stop production, and Asus discontinued the Eee. Tellingly, more tablets were sold than netbooks that year. But the Eee lives on, and not just because those of us who still have one or two will pop a thumbdrive into one of its slots, load Puppy or Antix or Lubuntu, and give it a whirl.

Today's high-end laptops adapted the Eee's strengths—battery life and weight, among others—and combined it with high-end specs. And, frankly, anyone who has negotiated a smartphone home screen, flicking those big, shiny icons, is doing about what we did with Xandros and its home screen on the Eee 901.

And it lives on in the Chromebook; a simple, inexpensive and lightweight laptop that does what most people need a computer to do—send email, browse the internet and do word processing. And it does it all through a browser window without the blue screen of death, Control-Alt-Delete, and updates that need to reboot and reboot and reboot. And then reboot again.

And isn't that what computing should be about?

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