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The Death of Flash and the Quiet Triumph of Open Standards

Yesterday I noticed [this story](#) about a web startup called SlideShare ditching Flash (a proprietary plugin provided by Adobe) in favor of HTML 5 (a set of open web standards that have recently been adopted by the major browsers). One announcement by an obscure startup is hardly news. But the announcement is part of a broader trend.

Two years ago, I would have predicted that Flash would be part of the web for the foreseeable future. It was used by sites like YouTube to deliver web video, and it was a popular way to deliver interactive applications. And it had been bundled with all the major browsers for more than a decade. Apple had chosen not to adopt Flash on the iPhone, but I assumed it was just a matter of time before Apple and Adobe figured out a way to fix that.

Then, in early 2010, Apple announced the iPad. It didn't have Flash either, and Steve Jobs [made it clear](#) they had no intention of ever bringing Flash to the iPad or iPhone. Suddenly, creating a Flash-based website not only meant that it wouldn't work on a popular smartphone, it also wouldn't work with the world's most popular tablet.

Jobs had two stated reasons for the shift. He said Flash was a crash-prone resource hog and that it wasn't an open standard. To a large extent, the first point is a consequence of the second. Because Flash is proprietary software developed by Adobe, third parties like Apple don't have access to the source code or permission to change it. That means they can't fix bugs or to optimize the code for particular devices. They have to rely on Adobe to do these things in a timely manner.

Yesterday's news about SlideShare is just the latest sign that Apple's no-Flash stance has caught on. A couple of weeks ago, Microsoft [announced](#) that the tablet version of Windows 8 won't include "legacy" plugins like Flash. And web design firms [report](#) that they're starting to get requests from clients to move away from the technology. When ditching a technology becomes trendy, its days are numbered.

Apple couldn't have killed Flash if HTML 5 hadn't recently been adopted by major browsers. HTML 5 offers alternatives to most of the key features of Flash. And no one controls it the way Adobe controls Flash. Since no software company wants to build its products on a standard it doesn't control, every company other than Adobe has a natural incentive to adopt HTML 5 over Flash.

This brings to mind Jonathan Zittrain's book [*The Future of the Internet and How to Stop It*](#). Zittrain warned that the success of the proprietary iPhone threatened to undermine the decentralized, bottom-up structure of the Internet. The Flash story is a useful counterexample to Zittrain's thesis. On the one hand, iOS is a proprietary standard controlled by Apple, so its ascendancy looks like a threat to open standards. Yet the rise of the iPad was a major factor in the decline of another proprietary standard, Flash.

There are two things to note about this. First, in the competition among firms, open standards have an inherent advantage even if none of the firms care about open standards as such. If Apple had tried to replace Flash with its own proprietary standard (as Microsoft tried to do with [Silverlight](#)), other technology companies like Google or Microsoft would have had no reason to support the move, since it doesn't benefit them to shift power from one competitor to another. But adopting an open standard means shifting power from one competitor to everyone else. So everyone except the incumbent has a reason to support open standards.

The second thing to note is that the rise of HTML 5 has gotten much less press than the rise of iOS. Reporters love to cover the clash of corporate titans. The battle between Apple and Google for dominance of the smartphone business makes good news copy. But because everyone supports HTML 5, there's no conflict and therefore no story.

At any given time, there are a few new proprietary platforms making rapid gains, as well as a huge number of open technologies that are making gradual gains against older, proprietary standards. It's easy to get the mistaken impression that the proprietary standards are on the verge of overwhelming the open ones. But this is an illusion. What's really happening is two things. First, the proprietary standards have marketing departments that are making sure they're in the public eye, so they get a lot of coverage. And second, even the company pushing the hottest new proprietary standard (Apple with iOS, in this case) is simultaneously adopting—and, therefore, entrenching—numerous open standards like TCP/IP and HTML 5.

So for at least two decades, it has looked like proprietary technologies were on the verge of taking over the software industry. Yet open standards have grown more and more dominant. This hasn't been a lucky fluke, it's a matter of basic economics. Proprietary software is central planning. And in the long run, central planning doesn't work as well as bottom-up organization.