

Re: Newsgroup

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Phil writes:

- > *I've used Netscape and its newsreader for over a decade now, and one of*
- > *the benefits is that its based on Mozilla, an open source program which*
- > *many very smart programmers have collectively worked on over the years.*
- > *The result is that, at least according to my computer geek friend, it*
- > *is far more immune to viruses and the like than Microsoft programs.*

And in that same regard, dkomo writes:

- > *I caught a major adware infection this week surfing the Web with*
- > *Internet Explorer. That program is a piece of crap in terms of*
- > *security. It allows "drive-by installs" of some very noxious malware.*
- > *If you are unlucky enough to surf to an unfriendly web site, your*
- > *computer is infected in a matter of seconds before you can even react.*
- >
- > *As I clean up my computer, I've continued to web surf using the*
- > *Netscape browser and bypassing the installed adware.*

As odd as these comments sound to the topic of the group, they're actually very much on-topic. You hear these kinds of things constantly among users, and while they're true to an extent, it's also important to understand their context because they're not true as to their general thrust: that is, IE is more poorly engineered than the other browsers.

Up until recently, Internet Explorer represented well over 80% of the browser population in use, and as a consequence it suffered the same slings and arrows of all monocultures: a vigorous attack by pathogens.

It is my understanding that all of the popular browsers (IE, Netscape, Mozilla, Firefox, Safari, etc.) share a common phylogenetic history. That is, they're all based on the original Mozilla project. But because of the popularity of IE, it has been singled out for special attack. Where there are eyeballs, it's believed that there's money to be made, and in that regard, venture capital organizations in Silicon Valley have invested more than \$140 million dollars in developing adware (what you call "malware") to worm its way into Internet Explorer.

A list of some organizations investing in this adware/spyware can be found at:

<http://www.benedelman.org/spyware/investors/>

We develop software here, but our most expensive project to date has consumed only \$4 million investment over a 15-year time span. The majority of our projects are completed for a few hundred thousand dollars. I can say with some certainty that if we had \$140 million dollars to develop similar software we could bring anything to its knees.

Software is the most complex machinery we as a society have ever built, and if there are complexities in any process, there are inherent vulnerabilities as well. You can be assured that the other browsers are just as vulnerable. They've been spared this level of intense interest only because of their relative rarity up to now, but as their frequency rises they too will become targets of interest and thus will become subject to this same form of density-dependent selection. It's exactly this process that has been argued by Wills et al. (1997) to maintain species diversity in the tropical forest:

"Strong density- and diversity-related effects help to maintain tree species diversity in a neotropical forest." Wills et al. (Proc. Natl. Acad. Sci. USA Vol. 94, pp. 1252-1257, February 1997 Ecology)

<http://www.pnas.org/cgi/content/full/94/4/1252>

In this argument, no single species can come to be dominant simply because once it does, it is attacked by a "rain of pathogens," thereby reducing or curtailing its capacity to spread, allowing secondary and tertiary species, which are not yet under attack, to temporarily prosper in the wake of the troubles of the primary species.

Wirt Atmar