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A Christmas Warning

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Before you ask Santa Claus for a new Windows PC, remember the adage "Be careful what you wish for."

In the best of all possible worlds, we would all benefit from the Microsoft monopolies of MS Windows and MS Office, by enjoying the network effects that result from most people using the same software: Everyone can easily exchange files, and teach each other how to use the software efficiently.

Unfortunately, since Microsoft's goal is to maximize its profits and not its benefits to users,

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the world Microsoft actually delivers is not the best of all possible worlds—far from it. Indeed, network effects have become as much a weapon in Microsoft's arsenal as they are a boon to consumers.

AN UNHAPPY SURPRISE

Microsoft rolled out Vista, yet another "great" new operating system, this year. A new behemoth, Vista does zillions of new things that I don't understand or need, most of which I will never even know about. Moreover, along with that operating system, the world received the double blessing of Office 2007.

The first person at my company who got this heavenly combination was our Executive Vice-President. He was furious. Vista and Office 2007 came with his new computer by default. When Michael Dell, Bill Gates's buddy and the founder of the world's leading PC manufacturer,

sold it to our VP, Dell didn't say, "Would you prefer the old versions of the operating system and MS Office that you know how to use?" Our VP would have said, "Hell yes!"

Unfortunately, however, the choice wasn't offered. Instead, he got a shiny new computer that he didn't know how to use: Functions were rearranged, and keyboard shortcuts were different. Think of the social cost of millions like him having to adjust to a new system they never wanted, and would have opted against if given the choice.

Worst of all, his coworkers couldn't read the Microsoft Word files he sent them in the new ".docx" format. They wrote back and asked him to resave files in an older ".doc" format and resend. Doing so wasted time, and this workaround might not have worked if he had inadvertently used some newfangled formatting feature. Hmmm, I wonder if, when you

do that, MS Word warns you that your file will become incompatible? That question, of course, is rhetorical. Such a warning simply wouldn't be Microsoft's style.

To be sure, Microsoft does provide a patch that is supposed to allow old versions of Office to read the new ".docx" format. But who knows about the existence of the patch? Not many. Most of us learn about it, to our consternation, in the midst of a time-pressured situation involving a document that cannot be opened.

MITIGATING THE DAMAGE

Eventually, our company, bepress, learned a few things. We now buy Dells with the old operating system (though we have heard that won't last forever) and scrounge around for "new" versions of the old MS Office 2003 elsewhere, which we install ourselves. The added time and expense is worth it, to undo the damage Microsoft has wrought, because this way, bepress's employees don't have to learn something new or struggle with the bugs of the new version of the new products.

Unfortunately, increasingly customers email us Office 2007 files saved in the ".docx" format, because that is the default format Microsoft chose. Could Microsoft have made the default be the traditional ".doc" instead? Surely, but that would not have served its purpose, which is clear enough: Eventually, after enough of the world pays Microsoft for Office 2007, bepress, too, will be dragged along, kicking and screaming. After paying extra money to stick with the old system, eventually we will buy the new one. And then, in four or five years, Microsoft will begin our agony all over again.

THE SIMPLE ECONOMICS OF A NETWORK MONOPOLY

Microsoft controls many things. Obviously, it owns its old software and can decide at what price to sell it and whether to sell it at all. And Microsoft owns its new software. More subtly, Microsoft can control expectations. And expectations turn out to be everything when network economies are substantial, as they are in software markets.

If everyone tomorrow woke up *expecting* that the world would shift to Apple within six months or a year, then sales of Windows would plummet. Why buy a Windows machine when all your colleagues will own Macintoshes and can help you on them, but not on Windows? Why buy a Windows machine when all the independent software developers will program for the Mac's new Leopard system, and not Windows? The expectations are self-fulfilling.

But that is not our world. In our world, when Microsoft rolls out Vista, everyone knows that (almost) everyone will adopt Vista. The question is *when* you should switch, not *whether* you should switch. Adding new features can speed the transition, but surprisingly, Vista (in theory) need not even have any valuable new features to take over. It needs only two things: First, it must be incompatible with existing systems in certain respects. Second, a sufficient number of people must know that it will become the new standard.

Designing new software to be incompatible with old software is essential to ensure that the transition is complete. Otherwise, people might keep their old machines or keep installing old software on new machines.

WHY DOES MICROSOFT DEVELOP NEW SOFTWARE?

Creating new software is costly, so you may wonder, Why should Microsoft bother? Why doesn't Microsoft just sell its original software for more, and promise not to make it obsolete with new software?

To be sure, one reason is fear of being overtaken by a new technology that would make it obsolete. Another reason is that Microsoft may find it difficult to make such a commitment. But there is a third powerful but subtle reason, too.

The Nobel Laureate Ronald Coase made a conjecture long ago known as "The Coase Conjecture": A monopolist selling a durable good must sell it at marginal cost. For Microsoft, that is trouble with a capital "T." After all, the marginal cost for software is zero, and Bill Gates's wealth would go down a lot if that were the equilibrium price for Microsoft's wares.

Now, of course, Coase's claim is a little extreme. But it has great power, nonetheless. Microsoft cannot extract its full monopoly rents selling its software without upgrades; not even close. The problem, fundamentally, is that even though Microsoft has a monopoly on primary sales of its software, copies sold in 2007 compete with those sold in 2006.

However, by coming out with a new operating system and new MS office software, Microsoft creates incompatibilities, some subtle and some obvious, that make the old software obsolete. This way, Microsoft can sell the old operating system at high profit margins without fear that people wait until the price drops. The price will never drop, for Microsoft will just roll out a new system, again at high profit margins.

WHAT CAN BE DONE?

Microsoft has been in antitrust trouble for 15 years running. Although Microsoft just settled its latest case, this one with the European Union, something tells me that Microsoft will get in trouble with antitrust authorities yet again before too long.

The next time around, I hope the antitrust authorities give serious consideration to a remedy that Ian Ayres, Hal Varian, and I have developed. Suppose Microsoft had to allow licensing of old versions of Microsoft software at a reasonable price (perhaps the price of the new version) whenever Microsoft brings out new versions. This would give Microsoft an incentive to make sure that new versions were compatible and significantly better than old versions—otherwise, the new versions wouldn't sell, or at least wouldn't sell easily. Wouldn't it be great if Microsoft's new software had to compete successfully at least against its old software? Then we would know the world was improving.

In the meantime, while you await a sensible competition policy that deals with these problems, and while you think about what you want for Christmas, think twice before asking for that new Windows PC. Instead, I recommend you install the Microsoft patch to your old computer (See http://office.microsoft.com/en-us/word/HA100444731033.aspx) and just suffer the devil you know.

Letters commenting on this piece or others may be submitted at http://www.bepress.com/cgi/submit.cgi?context=ev.

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