

Microsoft's Sacred Cash Cow

A former Microsoftie says addiction to Windows revenue, mediocre products, and missed opportunities could doom Seattle's most successful company.

by Jeff Reifman

Why are Microsoft products so endlessly frustrating to use? Even techno-geeks like me get annoyed by Windows. I'm tired of spending the first 10 minutes of my day rebooting just so I can get to work. Microsoft Outlook 2003, the latest version of the company's e-mail and calendar software, hangs for me about once a day, requiring me to restart my PC. I also have a problem with Word 2003: Whenever I bullet a line of text, every line in the document gets a bullet. Asking Windows to shut down is more of a request than a command—it might, it might not. And recently, Internet Explorer stopped opening for me.

I know I'm not alone. If you're like me, you've invested in technology to become more efficient and productive but mutter about the many frustrations of the digital lifestyle. Technology is my hobby as well as my job, so I regularly ponder why software giant Microsoft Corp., which has more than \$56 billion in cash, hasn't solved more of these problems.

I began using Microsoft products 23 years ago, at age 11, and I worked for Microsoft from 1991 to 1999 as a technology manager. For many years, I was a Microsoft loyalist. While aware of Microsoft's shortcomings, I always believed that the Soft did its best to improve products over time, as it did with Windows XP. But recently, I've had a crisis of faith. Perhaps I've rebooted Windows one too many times.

Over the past year, my frustration with Windows grew, as did my envy of Apple's cool new products. Finally, last month I went out and bought an Apple Macintosh G5 and began using the new Mac operating system, OS X. It had been years since I'd used a Macintosh. Until recently, I dismissed those who did as impractical, elitist hipsters, and I mocked the Mac "switch" ads on TV.

But in the first five minutes on my new Mac, I was surfing the Internet, sending e-mail, and ripping a CD. OS X has been a breath of badly needed fresh air after Windows.

This made me wonder about Microsoft's willingness to innovate and compete. Why are Microsoft products still so difficult to use and so unreliable? Why is the company improving them so slowly? Is Microsoft losing its competitive edge? Has the company seen its best days?

The Web's phenomenal growth has driven a number of fundamental changes. And from my vantage, at least, Microsoft seems to have overlooked the most important of those trends. It made a series of missteps, and it's not clear if it has learned from them. In protecting Windows and Office revenues, Microsoft has innovated less quickly than it could have. The company relies on the same strategy that helped it years ago come to dominate the personal-computer market with the Windows operating system, despite mounting evidence that its customers are looking for a new approach. Competitors such as Linux and Google are gaining, and Microsoft seems unprepared for the road ahead.

My Time at Microsoft

I arrived at Microsoft the week I turned 21. I was fortunate to spend the next eight years growing up on the Redmond campus. I learned nearly everything I know about project management there. I became a more critical thinker. And, like many others, I was very fortunate financially. In time, my stock options allowed me to pursue a for-profit dot-com startup, as well as a series of socially responsible nonprofit ventures.

I spent my first four years at the company working to build Windows into fax machines and other office devices. When the growth of e-mail made our work irrelevant, the group was disbanded. In 1995, I helped launch a news site for the fledgling MSN. Less than a year later, NBC joined us to launch MSNBC.com.

In 1997 and 1998, while still at Microsoft, I started two not-for-profit coffeehouses on Capitol Hill, Habitat Espresso and the Four Angels Cafe. Microsoft allowed me to moonlight, and the company's PR folks promoted my efforts as an example of a community-minded Microsoftie.

In 1998, I worked on a team developing prototypes for future versions of Windows, but I became frustrated with the group's lack of focus. I spent my last year working in e-commerce on Shop.Microsoft.com, Microsoft's online retail store. In 1999, I left Microsoft to found GiftSpot.com, a startup that was later acquired by GiftCertificates.com.

In 2001, I started a nonprofit organization called ActionStudio, which builds Web tools for nonprofit organizations. We've since merged with another nonprofit called Groundspring.org, which is where I currently work. I find socially responsible technology work most fulfilling but still enjoy keeping up on the overall industry.

A Victim of Its Own Success

Microsoft had \$32 billion in revenue last year. The Windows franchise is an impressively consistent revenue stream. "Financially, there's nothing wrong with the way Microsoft is doing right now," says Paul Andrews, a *Seattle Times* columnist, author of *How the Web Was Won*, a book about Microsoft, and co-author of the biography *Gates*. "It has an incredible record through the economic downturn." By any measure, Microsoft is one of the most successful companies in history.

But Microsoft's attempts to diversify into consumer businesses have yet to pay off: 68 percent of its revenue still comes from Windows and Office sales—more than 80 percent if you include the Windows server software used by so many businesses. The company must protect these core products. "The prime directive at Microsoft is to protect Windows and get customers to buy Windows and upgrades to Windows," says Matt Rosoff, lead analyst at *Directions on Microsoft*, a Kirkland-based newsletter.

Microsoft clings to this strategy because it has to. Its stock price relies largely on the continued strength of Windows and the Office suite of applications (Word, Excel, Outlook, PowerPoint, etc.). But Microsoft's dominance is an aberration in an otherwise competitive technology industry. Windows, Office, and the Internet Explorer Web browser all have greater than 90 percent share of their respective markets. To protect the cash cows, Microsoft must do things that no other software company would be doing right now. It's a victim of its own success.

Microsoft hasn't solved many of the software problems I described earlier in part because of the lack of competition. "One of the most frustrating things about Windows is how it steals time from us," says Andrews, who has followed the company for years. Andrews hasn't upgraded his PC from Windows 98 or Office 2000. "I'd just as soon have a stable operating system—my time is more important."

Andrews was surprised to learn recently that Jim Allchin, Microsoft group vice president of platforms, didn't realize that many users don't buy new computers because of how hard it is to move all their data and applications. "He was totally oblivious to this," Andrews says. "It's a couple-day process. His head was in the clouds."

Apple, on the other hand, has built a friendly and reliable operating system, OS X (as in the Roman numeral), in part by building on free components from the open-source software community. With open-source software, individuals and companies can build on each other's work and redistribute enhanced products for profit as long as they make their new source code available to the developer community. There is a

special energy associated with products that are built by communities of people and companies working together. It's optimization of global resources. Open source is where the software industry's momentum is right now.

I just rid myself of my Windows computer, switching my work to the Mac and OS X because of the reliability it has shown as I've added peripherals and other software. I know I won't waste as much time making the technology simply work. In most ways, OS X is superior to Windows XP.

While OS X is not completely an open-source product, Apple clearly benefited from using some open-source technologies. The open-source software components that Apple used, from a widely used computer operating system called Unix, have been tested and improved in universities and corporate settings for more than 20 years. Companies using such open-source systems are finding they don't have to reinvent the wheel every three years—and they get their products to market faster.

Microsoft is resisting the trend to open-source software development, in part because its entire Windows revenue stream could dwindle to a trickle if it did so. If Microsoft began building Windows with open-source software, competitors like IBM and Novell might be able to sell Windows to their customers without having to pay royalties to Microsoft. "The open-source business model is the one trend Microsoft can't follow," says Edward Jung, co-founder of Intellectual Ventures and a former senior software architect at Microsoft. Microsoft's need to preserve its enormous ongoing Windows revenue is a burden that other companies don't have.

Instead, Microsoft seems to have chosen the most logical alternative—stay the course, compete aggressively, and innovate as quickly as possible to keep up with the competition. If Microsoft provides a superior product, users will continue to choose Windows over products such as Linux (another Unix-based operating system) and OS X—or so the company thinks.

Recently, though, Microsoft announced that its next major Windows release, code-named "Longhorn," might be delayed beyond 2006 unless it is significantly pared down. It's already been three years since the release of Windows XP, and customers still have quality and security problems with it. Microsoft is so concerned about Windows XP security that it will likely give away its next upgrade to fix vulnerabilities and make it easier to deliver future fixes automatically.

To comprehensively address security issues, Microsoft has said it is building Longhorn from the ground up. Any time you start building an operating system from scratch, you create all sorts of unanticipated problems. If you are waiting for Microsoft to improve the consumer experience, you'll have to be patient.

The Longhorn slip might be Microsoft's biggest failure ever. It is beyond comprehension how the company could let five years lapse between major upgrades of its flagship product. Microsoft's missteps have opened a gaping window of opportunity for competitors.

An Open-Source Future

Microsoft's position on software licensing dates back to the beginning of personal computing. At a time when many hobbyists thought software should be free, Bill Gates challenged this notion in an open letter, igniting the first software piracy controversy. Ever since, Gates has made billions on software, while the free software movement has grown more slowly.

But open-source development is inevitable. Open-source products will soon offer features comparable to Windows and Office for the core needs of users. When this happens, Microsoft will need to have reinvented itself—and to have created completely new revenue streams to make up for the erosion of Windows and Office shares of

their respective markets. If you want a sense of how soon this might happen, download OpenOffice from www.openoffice.org and give it a try. There's no e-mail program, and it definitely lacks the sophisticated features of Office 2003, but it's free. If you want to try a free, open-source e-mail program, visit www.mozilla.org and download Thunderbird.

Microsoft admits that one of its biggest challenges is getting users of its products to upgrade to new releases. Fewer than 3 percent of Microsoft Office users have upgraded to the latest version. Microsoft says that it is its own biggest competitor, but in the absence of significant innovation, the real threat is customers defecting to less expensive alternatives like OpenOffice.

How real is the open-source threat for Microsoft? Open-source technologies have always dominated Web-server software, the applications that deliver Web pages. According to NetCraft, a well-known Web site that tracks technology on the Internet, the open-source Apache Web server leads Microsoft's Internet Information Server by 67 percent to 21 percent market share. Meanwhile, open source's foray to the desktop has only begun.

Even when customers don't defect, they use open-source alternatives to demand better pricing from Microsoft. Governments and large corporations—huge purchasers of software—are starting to embrace open software development. These trends threaten Microsoft's long-term earnings potential. I've learned through my work with ActionStudio that large, nonprofit foundations, as well, are predisposed to support the use of open-source tools. At Groundspring, we've made a commitment to move all of our new development to open-source systems.

And as a result of concessions that Microsoft made prior to the 2000 U.S. antitrust trial, many PC manufacturers now offer a choice of Linux or Windows on new computers. If you are technologically savvy, you can download Linux for free, or you can buy a more polished version from a company like RedHat. Recently, Wal-Mart began selling a \$298 PC with Sun's flavor of the Linux operating system and its Star Office software (a derivative of OpenOffice). Price erosion in the high-volume, low-end PC market is clearly going to draw some blood.

Microsoft isn't blind to the open-source threat. It has appointed an experienced executive, Martin Taylor, to work more closely with open-source developers and to get corporate customers to analyze the total cost of ownership of software purchases. Some studies show that free software might be just as expensive by the time you support it and customize it. Others strongly discount such claims, saying they are based on incorrect assumptions and old releases of Linux, which were more difficult to use. In any event, large customers are starting to see the potential to save money, and major site installations with Linux have begun to appear. Even Third World countries are adopting open source because the traditional cost-of-ownership calculus doesn't apply to them. Software licensing fees are much higher than the cost of technical support in those countries.

While open source is beginning to appeal to businesses, many consumers are happy just using a Web browser to surf and manage e-mail. With the growing availability of Internet access and portable devices like the Blackberry, owning a PC isn't as important anymore.

Now that open-source products are starting to cut into Microsoft's market share, the questions are just how much will they take and how soon will they take it? To remain attractive to investors, Microsoft must demonstrate that it can replace and augment lost revenue by diversifying into new businesses, but only billion-dollar product segments matter to such a big company. Even the Xbox game platform and MSN can't bring in that kind of money.

Microsoft declined to comment on the open-source challenge, but CEO Steve Ballmer wrote in a recent strategy memo to employees that was leaked on the Internet: "Non-

commercial software products in general, and Linux in particular, present a competitive challenge for us and for our entire industry, and they require our concentrated focus and attention. . . . In this environment of lean budgets and concerns about Microsoft's attention to customers, noncommercial software such as Linux and OpenOffice is seen as an interesting, 'good enough' or 'free' alternative."

For now, Microsoft's success creates problems that most software companies can only dream about. "Microsoft was asking me for \$50 million business ideas in 1990, but by 2000 they were looking for billion-dollar businesses," says Jung, who co-founded several teams while at Microsoft. "Billion-dollar businesses are really hard." For the sake of comparison, look at Apple's wildly successful iPod digital music player. Apple recently reported a 909 percent increase in sales of the iPod, for a quarterly net profit of \$46 million. This is chump change to Microsoft—nowhere near enough to make up for erosion in sales of Windows or Office.

Missed Opportunities

One multibillion-dollar opportunity has come along, however, and Microsoft has missed it. It's the Internet services business. Microsoft could have created a huge new revenue stream by delivering a suite of add-on services for Windows customers:

- The ability to log in to all our favorite Web sites with one password.
- Spam blocking for our e-mail accounts.
- Calendar sharing with colleagues and friends to schedule meetings.
- Automatic address book updates for all our contacts.
- A virtual hard drive on the Internet for sharing files, photos, and music with our friends and access to these files via the Internet while traveling anywhere in the world.
- Synchronization of our Internet bookmarks across all our computers.
- Online profiles of personal information that we could choose to share with Web sites and social networks.
- Regular backup of files to a storage site on the Internet.
- Regular application and system-security updates.
- One-step migration of files and programs to a new computer.

Apple provides a service similar to what I've described, called .Mac, for \$99.95 annually. Signing up 20 million Windows users (a fraction of the worldwide installed base) to services that cost, say, \$19.95 per month would generate more than \$4.7 billion in revenue annually. MSN should have offered these kinds of services long ago. But it hasn't, and as a result, there are some funny disconnects within the Microsoft product line. Users of Microsoft's free Hotmail e-mail have better spam protection than small business users who buy Microsoft's Exchange Server. MSN Premium customers, who pay \$9.95 per month, can share calendar information and schedule meetings with other MSN customers on the Web, but Exchange customers can't.

Microsoft's lack of a service strategy is a stunning oversight. More amazing, Microsoft came close to pursuing one. If Microsoft had made its Passport service

available for free, we would not have to remember different account names and passwords for each of our favorite Web sites. If you've used Hotmail, you've already registered for Microsoft Passport. The Passport technology can let you log in with a single password and then authenticate you to other Microsoft services or even external Web sites.

From a business perspective, Passport could have been an extremely effective way for Microsoft to connect with more Internet users. But instead of recognizing the value of offering this as a free Internet service, Microsoft decided that it wanted to charge companies for using Passport. At GiftSpot.com, we considered licensing Passport to make it easier for our customers to buy online gift certificates, but Microsoft's fees were too high. Other Internet sites like ours just didn't see a benefit in licensing Passport from Microsoft. So Passport never expanded beyond providing access to other Microsoft sites.

Microsoft originally did have plans to provide services for Windows as part of a poorly named product called Hailstorm. In the midst of its antitrust troubles, Microsoft announced that Hailstorm would work with Windows to store all of our data and files in an expanded Passport database, allowing us to share information with our favorite Web sites as we wished. Privacy advocates complained loudly, fearing a world in which Microsoft held all of our personal and private information on its servers. Microsoft abandoned the product. But it could have avoided these concerns, and made the service more lucrative, by offering it as a separate server product that allowed other companies to host their own data warehouses, using the Hailstorm technology. This is something Microsoft's done successfully in the past with its mail, work-group, and commerce-server technologies. Instead, Microsoft built Windows primarily as a desktop solution without closely linked Internet services. As the world wired itself to the Internet, Microsoft left Windows unplugged.

Google Fills A Void

When I first read, on April 1, that Google's Gmail service would offer 1 gigabyte of e-mail storage (1,000 times the amount offered by competitors such as Hotmail), I thought it was an April Fool's Day joke. But it was no joke. Google actually discourages users from deleting e-mail they've read, because Gmail uses keywords in your e-mail to send you advertisements based on your interests. One of my friends calculated that he could send and receive e-mail until 2007 before he would need more storage space. For the record, he also said that every ad he'd received as a beta tester of Gmail had interested him.

The likely next step for Google is to offer its customers remote storage space, a virtual hard drive on which to store all of your files, share them with friends and colleagues, and access them from anywhere. Microsoft should be very concerned about this. With the rise of the Internet and e-mail, many computer users just don't need the full power of Windows; they can get by with a Web browser, a search engine like Google, and Gmail. The \$298 Wal-Mart non-Windows PC from Sun makes a great platform for accessing these services. This is very bad for Microsoft because it creates downward pricing pressure on Windows and Office.

The other reason Microsoft should be concerned is that competing with Google on this scale is a huge technical task. After it launched MSN, Microsoft went through the painful process of learning that managing and supporting service-based businesses was entirely different from developing and shipping software on CDs. Microsoft still occasionally has outages with Microsoft Passport, Messenger, Hotmail, and MSN that upset customers. In contrast, managing complex services well is something that Google has built its entire business on. I don't remember ever seeing Google's Web site not respond, or even respond slowly.

Google has quietly put together a talented group of computer scientists who know

how to solve the complex challenges of maintaining what is known as scalable, distributed computing that links many small computers to act as a big one. *The New York Times* recently reported that Google has built a network of more than 100,000 servers (all running the open-source Linux operating system, by the way). One employee recently compared working at Google to having access to the world's most powerful supercomputer. Its primary product now is search, but Google is building the capability to host everyone's files, e-mails, photos, and music on the Internet as well. If Microsoft waits too long to embrace services like these, it might not be able to catch Google, and the task would probably be more difficult than the effort Microsoft launched in the 1990s to catch Netscape in the browser wars.

Microsoft spokesperson Jim Desler declined to comment on rumors of Google's move into the services business. More immediately, he says, "Search is both a technology and a marketing challenge. What you see now is just a snapshot in time that will change a year from now and two years from now." So far, though, Google has outdone Microsoft in technology and marketing.

Matching Google's brand development might be a greater challenge than matching the technology. Microsoft's always been an uneven marketer, while Google's already established itself in our consciousness. *Google* is a verb now. Admittedly, though, creating search engines to serve millions of users is an easier task than offering other remote services, such as e-mail and file sharing. Jung, the former Microsoft senior architect, is more reflective when discussing Google's prospects: "At the end of the day, Silicon Valley companies fall prey to their own PR. One thing I give credit to Microsoft for is it's always paranoid of the invisible threat. I'd like to see more of that in Google."

And with Google's public stock offering, many of its employees are becoming rich. This kind of success can weaken a company, as Microsoft learned during the 1990s, when many of its employees retired to enjoy their newfound wealth.

Microsoft now faces a different kind of sloth. University of Baltimore law professor Robert Lande says, "Microsoft, like almost all monopolies, has become fat and lazy. Monopolies do not engage in innovation with the same urgency because they don't have to innovate to stay in business."

Meanwhile, Microsoft continues to promise solutions for tomorrow that customers need today. A good example is the company's plan to improve its own search engine. For many, the holy grail of search is a unified approach that will allow users to search their e-mail, files, and the Web from their desktop. Since 2000, Google has offered a free, downloadable toolbar that is a handy add-on for Internet Explorer. It makes it easy to search the Web without going to the Google Web site. It will not be hard for Google to add the capability to search your PC and your e-mail. *The New York Times* recently reported that Google plans to offer such a tool "soon." This is the type of innovation that I would have expected from Microsoft long ago. MSN recently released its own toolbar to access the MSN Web-search engine, but it doesn't have the ability to also search the user's PC. In response to Google, Microsoft announced last week that it would move up the timeline for unified search, providing the capability in stages over the next year. It had originally planned to implement it in Longhorn—sometime by 2006—by redesigning the entire PC file system.

Betting on Longhorn and .NET

One Microsoft innovation is .NET, a development platform for building and managing applications for Windows that work more closely with the Internet. The growing popularity of Sun's competing Java-based programming platform pressured Microsoft to improve its own. Everyone I spoke to had positive things to say about .NET. Even some Java developers are now excited about developing on Windows.

Yet Microsoft seems to be pursuing the same old platform-centric strategy, hoping that it will help continue Windows' dominance. Microsoft has always had success by luring application developers to the Windows platform. In turn, customers would buy Windows because it ran all of their favorite programs. Microsoft hopes to repeat this with .NET. But the Internet browser has made it easy for application developers, as software programmers are known, to build products that can be used with any operating system. Many of today's most compelling products are Web-based applications that run just as well on Linux with the FireFox browser or OS X with Apple's Safari browser as they do on Windows.

In part due to open-source products, developers now have many choices in building Internet software and services. With .NET, Microsoft hopes again to lock developers into Windows, as it could before so many tools and resources migrated from the PC desktop to the platform-neutral World Wide Web. But much of what Microsoft has promised programmers has been delayed by the lengthy timeline of Longhorn. And a new open-source project called Mono will make it possible for .NET applications to run on Linux or OS X. So the notion that the proprietary .NET programming tool will be a successful answer to open-source development efforts on the Web is mistaken—akin to thinking that winning the browser war with Internet Explorer would achieve control of the Web. Similarly, Microsoft's dominance on the PC desktop, with Windows and Office, could be neutralized as the value of sophisticated networks of Internet-based servers, like Google's, increases. The shift of importance, from control of the desktop to networks of services, levels the playing field and makes Microsoft vulnerable.

Banking on Windows

My most memorable moment at Microsoft came during a technical review with Bill Gates. I will never forget the moment when I made an apparently obvious point to him. He responded, "What? Do you think I'm stupid?" Everyone was staring at me, and I felt it best not to answer. Like Gates, there were always people at Microsoft who were much smarter than me and more technically skilled. But he's created a corporate culture that sometimes struggles to see the forest for the trees—and I think this is what has led to some of the challenges that it faces today.

My biggest complaint about Microsoft is how hesitant they are to update Windows in a more modular fashion over time, instead saving innovation for large updates every several years. Apple, in contrast, is updating OS X monthly and sometimes weekly.

While the monolithic development process helps Microsoft plan and deliver long-term innovations like Longhorn, it's harder to test and release these products in a timely manner. The open-source community updates products continually, so customers don't have to wait as long for new features. MSN Messenger, the instant-messaging application, and Windows Media Player, which plays audio and video, have benefited from frequent updates, but Microsoft hasn't updated Internet Explorer since 2001. I'd like to see Microsoft add unified search to Windows XP or support for Internet file sharing, but it won't happen until Longhorn ships.

Keith Rowe, my former manager at MSNBC.com, used to say that the most important skill of a manager is to know when to kill your own project. I don't think new, better ideas that would take business away from Windows or Office really have a chance at Microsoft. The company is addicted to the revenue from these flagship products and is afraid to go in new directions that might initially hurt the bottom line.

Microsoft is flush with \$56 billion in cash and short-term investments. Income of \$16 billion is expected in fiscal year 2005. It dominates the most profitable segments of the software industry—operating systems and productivity applications. It

attracts talented, creative people and gives them the time to innovate. I have no doubt that Microsoft will lead the industry with some incredible advances in the coming years.

But Microsoft's market share in desktop operating systems, servers, and productivity software can go no higher. Its core businesses face gradual erosion to competitive operating systems such as Linux and OS X. It faces challenges from new approaches like services offered by Google and the growth of dedicated consumer devices that make owning a traditional personal computer less necessary.

Meanwhile, Microsoft doesn't evoke passion in me anymore. Its products don't excite me anymore. I remember eagerly looking forward to Outlook 2003, only to be disappointed by how complex, buggy, and unimproved it was. "There's kind of an angst," says Andrews, the *Seattle Times* columnist and author. "Microsoft ought to matter to us. There ought to be more of an intellectual and emotional connection. There just isn't."

In an age when retailers hire consultants to analyze what hip kids do, you'd think Microsoft would care more about what the hip kids are doing. They're running around with iPods, using Linux and OS X. A Groundspring intern e-mailed me recently about his new Apple PowerBook: "I think I may be smitten by a computer." That's the kind of passion I'm talking about. In its search for market share, dominance, and profits, Microsoft lost the ultimate battle for our hearts and minds. For now, though, it's still laughing all the way to the bank.