

# Google Plans a PC Operating System

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SAN FRANCISCO — In a direct challenge to [Microsoft](#), [Google announced](#) late Tuesday that it is developing an operating system for PCs that is tied to its Chrome Web browser.

The software, called the [Google](#) Chrome Operating System, is initially intended for use in the tiny, low-cost portable computers known as netbooks, which have been selling quickly even as demand for other PCs has plummeted. Google said it believed the software would also be able to power full-fledged PCs.

The move is likely to sharpen the already intense competition between Google and Microsoft, whose Windows operating system controls the basic functions of the vast majority of personal computers.

“Speed, simplicity and security are the key aspects of Google Chrome OS,” said Sundar Pichai, vice president of product management, and Linus Upson, engineering director, in a post on a company blog. “We’re designing the OS to be fast and lightweight, to start up and get you onto the Web in a few seconds.”

Mr. Pichai and Mr. Upson said that the software would be released online later this year under an open-source license, which will allow outside programmers to modify it. Netbooks running the software will go on sale in the second half of 2010.

The company likely saw netbooks as a unique opportunity to challenge Microsoft, said Larry Augustin, a prominent Silicon Valley investor who serves on the board of a number of open-source software companies.

“Market changes happen at points of discontinuity,” Mr. Augustin said. “And that’s what you have with netbooks and a market that has moved to mobile devices.”

But while Google has deep pockets and a vast reach, it is in for a difficult battle when it comes to challenging Microsoft in the operating system market. Many companies have tried this over the years, with little success.

Google’s plans for the new operating system fit its Internet-centric vision of computing. Google believes that software delivered over the Web will play an increasingly central role, replacing software programs that run on the

desktop. In that world, applications run directly inside an Internet browser, rather than atop an operating system, the standard software that controls most of the operations of a PC.

That vision challenges not only Microsoft's lucrative Windows business but also its applications business, which is largely built on selling software that runs on PCs.

Google said Chrome OS will have a minimalist user interface, leaving most space on the screen to applications.

"All Web-based applications will automatically work and new applications can be written using your favorite Web technologies," the company said.

Google has already developed an open-source operating system called Android that is used in mobile phones. The software is also being built into netbooks by several manufacturers.

But Google has not encouraged netbook makers to use Android. The company appears to be positioning Chrome OS as its preferred operating system for netbooks, though it said competition between the two systems would likely drive innovation.

"It makes total sense," Mr. Augustin said. "Android wasn't really meant for netbooks."

Google had planned to unveil the project on Wednesday but moved up the announcement after receiving inquiries from The New York Times, which reported the company's plans on its Web site late Tuesday. Ars Technica, a technology news site, also reported the outlines of Google's plan late Tuesday.

Google released Chrome last year, describing it as not only a Web browser but also a tool to let users interact with powerful Web programs like Gmail, Google Docs and online applications created by other companies. Since then, Google has been adding features to Chrome, like the ability to run such applications even when a user is not connected to the Internet.

Google said Tuesday night that it still had work to do to develop a full-fledged operating system. In a recent interview, Marc Andreessen, who created the first commercial Web browser and co-founded Netscape, said Chrome itself was already well along that path.

"Chrome is basically a modern operating system," Mr. Andreessen said.

The first wave of netbooks relied on various versions of the open-source Linux operating system, and major PC makers like [Hewlett-Packard](#) and [Dell](#) have backed the Linux software. [Intel](#), the world's largest chip maker, has worked on developing a Linux-based operating system called Moblin as well. The company has aimed the software at netbooks and smart phones in a bid to spur demand for its Atom mobile device chip.

To combat these efforts, Microsoft began offering its older Windows XP operating system for use on netbooks at a low price. In addition, the company has vowed that its upcoming Windows 7 software, due out this fall, will run well on the tiny laptops, which have stood out as the brightest part of the PC market during the global economic downturn. Microsoft's current Vista operating system is designed for more powerful machines.