

Mosaic Gives Guided Tour Of Internet

Companies Rush to Refine An On-Line Resource

By Elizabeth Corcoran
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What would you be willing to spend to make sense of the digital network called the Internet? More than \$100?

Almost a dozen companies are betting you're good for at least that. They are rushing to bring to market commercial versions of a path-breaking navigation program called Mosaic. It is an early sort of AAA road map to the digital network, allowing people to find information on the Internet easily.

Close to a million copies of a rudimentary version of Mosaic already have been distributed free of charge by its university developers. But like the first personal computers, this version is prone to glitches and requires considerable user savvy. The companies see money in making it easy for the ordinary person or small business.

What's so special about Mosaic? Even for digital sophisticates, it has brought much-welcomed relief in finding things on the Internet. Information as diverse as

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local restaurant reviews and President Clinton's speech in Latvia is there; finding a precise item can be as tricky as laying hands on a particular book at a garage sale.

The Internet connects an estimated 20 million people, allowing them to trade electronic mail and information. To get at resources in a particular machine, people must often know a complex set of commands—and know that the information is there in the first place.

But Michael Wolff, a consultant in New York, sees Mosaic changing that. "It's the breakthrough that makes the Internet available to everybody."

It offers a picture-book approach by displaying databases and other resources as collections of tidy menus, filled with pictures, or icons, and explanations of what is what. Underlying those menus is a spider's web of software called the "World Wide Web," which links related menus and topics.

Those who want to post information on the Internet create a Mosaic "home page," which is an opening menu that describes what they have put on the network.

Users looking for information on, say, new CD-ROM encyclopedias might begin by typing likely keywords into a search program to find the right home page. In addition, some companies are beginning to create home page directories, much like the telephone yellow pages, that list categories of topics. Once users have found a relevant home page, they can jump to related menus.

But Mosaic has problems too. Created by a team of graduate students at the National Center for Supercomputing Applications (NCSA) at the University of Illinois, the original version is plagued with bugs that can freeze a computer.

It runs most smoothly on powerful computer workstations with direct connections to the Internet. But for those who pull Mosaic out of

the on-line databases set up by the NCSA, there are no fat manuals, no customer support or help lines to call when the system fails.

For these reasons, no one is sure just how many of those million copies distributed free are really being used.

Enter the entrepreneurs. Ten companies, including start-ups and the Japanese electronics giant Fujitsu Ltd., have licensed Mosaic.

Developers have massaged the basic software code to try to avoid the crashes. Some have added simple security features and reply forms, so that businesses that want to sell things on the Internet can receive comments or even orders from customers.

"We're hoping it's a \$20 [million] to \$60 million opportunity for us," said Joe Civello, marketing manager at Amдахl Corp.

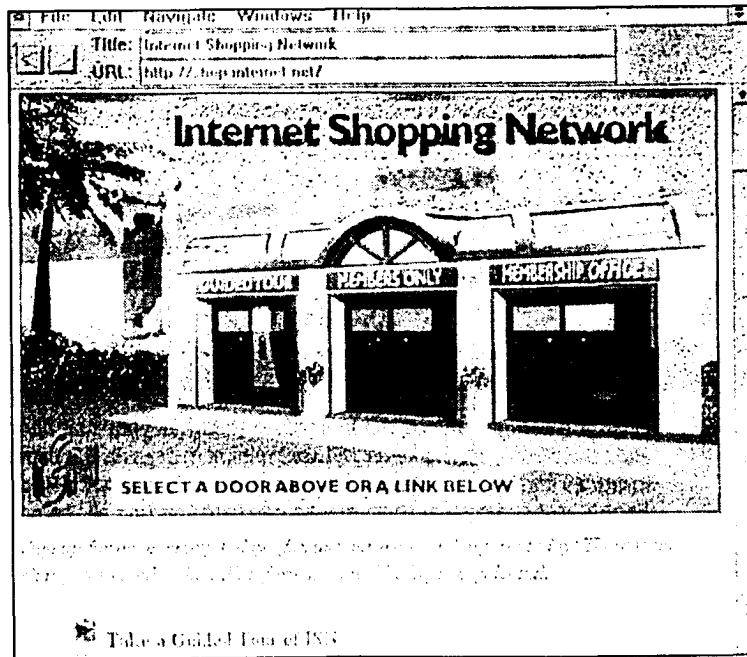
By the fall, the company is planning to offer corporate customers everything they need to get on-line, in the form of a \$2,500 package of hardware, software, consulting services—and Mosaic.

Several companies are selling their versions of Mosaic directly to computer manufacturers. For instance, beginning this fall, Digital Equipment Corp. will begin including on its machines a version of Mosaic from start-up Spyglass Inc. of Champaign, Ill.

Santa Cruz Operation of Santa Cruz, Calif., is shipping a version that runs on powerful workstations. Customers include Wells Fargo Bank in San Francisco, whose employees use it to search a variety of financial databases.

There is also a Mosaic for home computers in the works. Because these machines typically connect to the Internet over telephone lines that carry relatively little data, this software works more slowly. Spry Inc. of Seattle has teamed with O'Reilly & Associates of Sebastopol, Calif., to offer a refinement of Mosaic for personal computers, in a package called Internet in a Box.

David Pool, Spry's president, hopes to win 70,000 to 100,000 customers in the first year.



A menu from Spyglass Inc.'s version of Mosaic, which helps users navigate the Internet.

"If you don't have a home page next year," he predicted, "it's going to be like not having a fax."

Picked by many analysts as the eventual front-runner in this pack is Mosaic Communications, founded by industry veteran James Clark, formerly chairman of Silicon Graphics Inc.

"We'll have more sophisticated displays and security. Information will be encrypted as it

passes over the network," said Marc Andreeson, technology vice president of the company.

Part of the reason for the industry's optimism about this company is that Clark has hired seven of the people who wrote the software in the first place, Andreeson among them. The team is redoing Mosaic from scratch.

Said Clark: "We rarely give these other companies a thought." ■