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The Browser as we know it was born here four short years ago, spawning fame and fortunes, but all you'll find today at the University of Illinois is a lot of hard feelings.

CHAMPAIGN-URBANA, Ill. - The browser that ignited the Web revolution was born in this university town. But you would never know it from the locals.

At the Espresso Royale Caffe, where late-night brainstorming sessions shaped the software that transformed the computer world, a clerk mishears a query about the browser as "Bowser, the dog." When told about the cafe's role, the clerk excitedly spreads the word: "Hey, guys, did you know the Web browser got started here?"

Microsoft's launch last week of its next big thing - Version 4.0 of its Internet Explorer browser for navigating the World Wide Web - underlines a tale of intrigue surrounding the birth of the browser here at the University of Illinois, 140 miles south of Chicago.

Just four years ago, a group of young programmers at the university's National Center for Supercomputing Applications (NCSA) put together what became the original graphical browser, called Mosaic. What the creation of the automobile did for transportation and broadcast radio and TV did for mass media, Mosaic did for online communication.

Both Microsoft and Netscape, locked in combat over the browser market and leadership of the Web, trace the lineage of their browsers to Mosaic. Netscape's co-founder Marc Andreessen, his friend Eric Bina and the core of Netscape's original programming team all hailed from the Mosaic project at the NCSA. Microsoft used Mosaic code as the foundation for its original version of Internet Explorer.

"Mosaic's importance to the growth of the Web is something that will be recognized in bigger and bigger terms as time goes on," said Doug Colbeth, chief executive officer of Spyglass, a Chicago-area company that in 1994 licensed Mosaic to Microsoft. "The whole Web revolution could not have happened without it."

But Mosaic's stature in Web lore stands in stark contrast to its visibility on the University of Illinois campus, a legacy that includes a series of communication breakdowns, personality conflicts and ultimate disaffection that put the university at loggerheads with one of the most successful university-spawned commercial ventures in history.

Today, there is virtually no on-campus recognition of the NCSA's or University of Illinois' contribution to the Web. The center's sparkling new headquarters, the Beckman Institute, contains plaques, awards and displays commemorating the university's contributions to science and technology - but almost nothing about the Web.

The cramped, rickety building where the graphical browser itself was born is condemned and is not even listed on campus maps. A search of the university's Web site turns up hundreds of references to Mosaic, many of them dead links. A Web page devoted to the product contains the note: "Last modified May 9, 1995." Early this year, the university stopped supporting - upgrading and offering help to users of - Mosaic.

At the distinctive eight-sided University Inn, where Silicon Valley entrepreneur Jim Clark interviewed and signed up the original Netscape team, a manager only vaguely recalls the connection. "Maybe we should put together a plaque in the lobby or something," muses John Katsinas, food and beverage director.

In an era when countless high-flying, lucratively funded technology startups owe their intellectual roots to academic programs, Mosaic should stand as a shining example of how university research contributes to economic strength and pride. Under a concept called technology transfer, academic

institutions curry alumni successes, with the expectation they stand to benefit from positive publicity, financial contributions and licensing arrangements.

The University of Illinois has produced countless examples of technology transfer, including Spyglass, which started with scientific visualization and today licenses Web browser technology.

So has the University of Washington, whose computer science department and Human Interface Technology virtual-reality laboratory have contributed to numerous startups.

"There's a 50-year history of partnership among government, academia and industry that has made America the world leader in information technology," said Ed Lazowska, who chairs the UW's computer-science department.

But Mosaic departed from the pattern.

Mosaic got its start at NCSA in 1993, when the power of the World Wide Web was just beginning to capture a new generation of talented programmers discovering the Internet largely through free, academic online accounts. The concept of browsing the Web for linked information had originated with Tim Berners-Lee, who created the Web while at the CERN laboratory in Geneva, Switzerland. But Berners-Lee's browser was designed primarily for text. Mosaic added pictures, which along with its point-and-click Windows-like interface opened the Web to millions of nontechnical viewers.

The question of who came up with the original idea for the graphical browser remains a running argument in NCSA circles. Andreessen, hailed by the media as the "boy genius of Silicon Valley" and the "next Bill Gates" after Netscape rocketed to fame, drew resentment from insiders after articles credited him with the original idea. Today, Andreessen and Bina, who contributed the bulk of original programming on Mosaic and later helped build the Netscape browser, say their contribution was to add graphics and user-interface improvements to browser technology.

The project coordinator, Joseph Hardin, however, said the idea arose "organically" from discussions among Andreessen, Bina and another NCSA programmer, Dave Thompson, as well as key managers, including Ping Fu, Andreessen's supervisor. Fu herself recalls suggesting the idea of a graphical browser to Andreessen. As project manager, Hardin officially assigned Andreessen and Bina to do the browser, but they say their work was well under way by then.

Andreessen denies any great insight, saying the concept was "just there, waiting for somebody to actually do it." Nearly everyone associated with the project credits Andreessen and Bina for acting quickly on the concept and producing the first graphical browser, for the Unix X Windows system.

Whatever the case, the catalyst was the visual and collaborative orientation of the NCSA's software. The center had long worked on enabling scientists to share data over networks in easily comprehendable 3-D form.

Before they became involved in Mosaic, several of the center's programmers - called the "rat pack" for their erratic personal habits - were working on Collage, software for sharing data augmented by pictures and sound over networks. Andreessen worked with Fu's pioneering 3-D modeling software as well.

When they discovered the hyperlinking power of the Web, the NSCA programmers "had that predisposed connection to visualization," said Mike Folk, who headed a key data-format project for the NCSA."If you're NCSA, it's obvious what you do with the (browser) technology."

Mosaic was a giant hit on the Web. But the Mosaic project's collaborative orientation proved easier to implement in software than real life. Personality conflicts arose over management, creating a day-to-day tension that Aleks Totic, who worked on the Macintosh version of Mosaic before being hired by Clark, recalled as "unbearable" and "academic politics of the worst kind."

A catalyst for disaffection proved to be one of the most-remembered articles on the Web, appearing in The New York Times in December 1993. Although reporter John Markoff interviewed both Andreessen and Bina for the article, neither appeared in the printed version. Instead of a group photograph of the programming team, the newspaper printed a photograph of NCSA director Larry Smarr and project coordinator Hardin.

The team felt slighted. Communication eventually broke down so severely that Chris Wilson, who headed Windows development for Mosaic, left for Seattle-based Spry even before the team that became Netscape was recruited by Clark. Wilson, who was instrumental in creating Spry's popular Internet In a Box software, now works on browser technology at Microsoft.

"I at that point just wanted to get out of NCSA and find something new to do," Wilson recalled. "Some of the management decisions there were getting harder to deal with. There were rebellions breaking out all over, evidenced by the fact that the entire team left shortly after I did. But I don't think most of the rest of the team really wanted to work together."

Markoff said he "wasn't thinking about it as a political situation at all because the NCSA had a rich tradition of giving away software."

But the center happened to be in the midst of shifting its policy as Mosaic was being born. The source code of the first version of Mosaic, written for high-end Unix workstation computers, was posted on the Web and available free to all comers. Mosaic's explosive popularity made the center rethink posting subsequent versions for Microsoft's Windows and the Apple Macintosh on the Web. Instead, those versions were licensed.

"Prior to the middle 1980s, in some sense everything done at universities under research grants was kind of in the public domain," pointed out Lazowska. With the 1980 Bayh-Dole Act, however, universities could profit from inventions they created. The act "created an obligation for them to actively try to commercialize stuff, and have mechanisms for sort of sharing the proceeds," Lazowska said.

Simmering tensions left by The New York Times story boiled over when Clark and Andreessen, who had left for Silicon Valley after finishing his course work, recruited the Mosaic team. Clark, who had donated $2 million worth of Silicon Graphics equipment to the center and was on good terms with director Smarr, did not notify the university of his intentions. That miffed Smarr, who referred to Clark's effort as "raiding" the center.

"I didn't think it was necessary to ask permission to hire these guys," said Clark. "They were all graduating."

Members of the Mosaic team hired by Clark, moreover, say they were ready to go.

"Obviously we were ready to move on or the quote-unquote raid wouldn't have been so successful," said Bina, who credited Clark with offering the group a way to recapture "the fun of the original software development group (at NCSA)."

Clark and Andreessen further raised university hackles when they decided to call their new venture Mosaic Communications Inc. That led to confusion by potential licensees of the Mosaic software from the university and charges of trademark violations by the university.

"The normal way would have been for Jim Clark to come here wanting to license Mosaic," said Marcia Rotunda, associate counsel for the University of Illinois. "There never was an approach like that."

Clark said he asked Andreessen if it was necessary to license Mosaic in order for their new company to produce its own browser. Andreessen told him no. He and the rest of the company's "NCSA kids," as they came to be called, intended to write their browser from the ground floor up.

Rumors still circulate that Netscape's original browser contained Mosaic code, at least in its early versions. Rotunda said college authorities received e-mail telling of early Netscape error messages containing references to NCSA. Clark hired a software expert to compare the code, who found similarity only in the header files, as would be expected between Unix programs. Clark offered to submit Netscape's code to the university for inspection, but "by that time we didn't think it would be helpful," Rotunda said, and the university declined.

Clark offered 50,000 shares of Mosaic Communications stock in return for exclusive rights to the name, but the university already had licensed Mosaic to other vendors. Hoping to establish a California venue in event of possible university lawsuit, Clark sued in U.S. District Court in San Jose seeking a declaratory judgment that Mosaic Communications was not violating the Mosaic copyright and charging the university and Spyglass with unfair competition and trade libel.

Eventually the matter was settled with payments totaling $2.7 million to the university. Mosaic Communications agreed to change its name to Netscape. "It's water under the bridge at this point," Rotunda said.

Andreessen, Bina and other members of the team still feel bitter about the university's treatment. Andreessen likes to point out that the university not only lost out on the stock offer, which at its initially skyrocketing peak would have been worth more than $8 million, but potential alumni contributions.

Smarr said he regrets the continuing rift.

"We're proud of the fact a company as well known as Netscape came from here, just as we're proud our technology is incorporated into Microsoft's browser," said Smarr, director of the NCSA since its inception in 1985. "It's a shame this situation exists."

The focus on Mosaic's contribution should be its intellectual, not fiscal, legacy, said the UW's Lazowska.

"The question of whether Illinois should have made more money or not is really irrelevant to everyone except the regents of the University of Illinois," he said. "The real question is, was the public interest served? And the answer is surely a resounding yes."