COMPUTING RESEARCH

# Microsoft Settles Down Amongst the Dons

**Microsoft hopes Cambridge's academic hothouse will provide fertile soil when it opens its first lab outside the United States next week**

**CAMBRIDGE, U.K.**—When Microsoft began setting up its first research lab outside the United States here 4 years ago, it started off in much the same way as the megacorporation itself. Microsoft was launched—famously—in a garage. "We started off borrowing some space from a friend at the university" and bought five PCs on personal credit cards, says Roger Needham, the former Cambridge University professor who heads the research lab, formally known as Microsoft Research Cambridge. In true Microsoft style, things have moved rapidly: Next week, the lab will open a new $20 million building here for its 65 researchers.

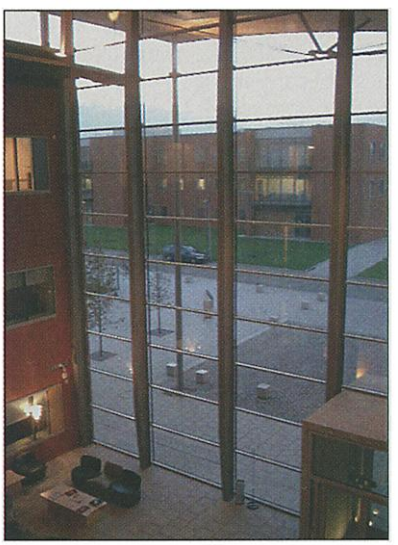
The new facility will liberate staff from cramped quarters and provide room for future expansion. But its very existence begs a question: Why is a heavyweight like Microsoft, which many perceive as the epitome of 21st century capitalism, putting down roots alongside the ancient colleges in this tranquil academic town? And what does the university gain by supping with the often-vilified corporation? Microsoft and Cambridge scientists say the attractions are mutual.

The Cambridge operation's parent—Microsoft Research (MSR), based in Redmond, Washington—has a tradition of supporting blue-sky research in an academic atmosphere (*Science*, 27 February 1998, p. 1294). By immersing themselves in the Cambridge milieu, staff members at Microsoft's nascent British outpost have recreated the Redmond atmosphere here. They and their university colleagues attend each other's seminars, while Microsoft staff members supervise Cambridge grad students and poach postdocs. Cambridge benefits, too, says Ian Leslie, head of the university's computer laboratory: "Not only does it give us places to try out ideas and to see what's going on in industry, but it also gives us access to a bigger pool of brain power."

Many outsiders look on with admiration. "They're bringing together the best computer brains," says Christopher Strachey, director of Oxford University's computer laboratory. Some, however, view the Cambridge-Microsoft partnership with distrust and envy.

Microsoft's research arm is the brainchild of former Microsoft Chief Technology Officer Nathan Myhrvold, who persuaded company chair Bill Gates to start the Redmond lab in 1991. From the outset MSR managers fostered a collegiate atmosphere rather than the pressure cooker of a modern corporate office. MSR boasts that its work "touches nearly every product the company ships, whether by transferring algorithms, consulting with product teams, or creating better developer tools."

In the mid-1990s, Microsoft's hunger for innovative software research outstripped MSR's capacity. But beefing up the Redmond shop seemed an unwise course of action. "They found that not every good researcher wanted to go to the Pacific Northwest," says Needham. For years Myhrvold had his eye on Europe, and Cambridge seemed a logical choice. Alan Turing, widely regarded as the father of computing, was a graduate of Cambridge University, which built the world's first practical stored-program computer, the EDSAC, in 1949. And the Cambridge region became a high-tech magnet in the 1990s, earning the nickname "Silicon Fen."



**Room with a view.** Microsoft's new lab is neighbor to Cambridge University's new computer department.

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Conjuring the Redmond magic fell to Needham, a computer security expert who had been at Cambridge since 1962. Needham says his instructions from Redmond were simple: "You know the sort of research Microsoft is in; go and hire the best people there are and get them to do what they are good at." He and top lieutenants drew up a recruiting list in the group's anticipated core areas: security, communications, and integrated systems.

As in Redmond, the Cambridge lab bills itself as a scientist's fantasy: Curiosity and enthusiasm, not corporate strategy, give the marching orders. "The fact that Microsoft Research labs in Cambridge have a university feel is entirely down to Roger Needham," says Andrew Pitts, deputy head of Cambridge University's computer laboratory. Driven by the interests of individual researchers, MSR Cambridge's research scope has expanded to include fields as diverse as computer graphics and vision, speech recognition, decision theory, data mining, and natural language processing. "We are not like other companies where managers tell other people what to do," says Microsoft's Lyndsay Williams.

Although no one disputes that Microsoft is nurturing creative minds in Cambridge, the financial connections between the company and the university have raised eyebrows, particularly outside Silicon Fen. The new MSR building sits on university-owned land, next to the new $27 million computer department building—itself helped along with a $17 million donation from the Bill and Melinda Gates Foundation. Microsoft also sponsors graduate students and funds a number of the university's research projects. The company leaves it to the academic researchers it sponsors to decide whether to put the fruit of their labor in the public domain or market it. If the latter, Microsoft insists on free access to the innovation.

"I do not believe that Microsoft's donation compromises our independence in any way," says Pitts, who manages a project with both government and Microsoft funding. "They haven't changed the direction of what we are doing one iota."

Although Microsoft's own researchers follow their whims, one of Needham's tasks is to nudge the lab in directions that dovetail with the work in Redmond and at a 3-year-old Microsoft lab in Beijing, China, which specializes in computer recognition and transcription of Chinese text. The nudging doesn't seem to dim the team's enthusiasm. Williams, for instance, is developing a penlike gadget that will record the words it commits to paper and transmit them, for transcription, to a pocket PC, desktop, cell phone, or tablet computer. "Here," she says, "the idea is that you demonstrate something and get people so excited and interested that they will just go and volunteer to write a piece of software for it." These days, that's a precious work environment indeed. **–TIM BURNHILL**

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