

A Tale of Two Departments: Computer Sciences and Electrical Engineering at U.C. Berkeley, 1967-1973

In 1967 the University of California at Berkeley simultaneously created two different sites for computer science within the university: in the same letter, the university president approved the creation of the Department of Computer Sciences and the name change for the Department of Electrical Engineering to the Department of Electrical Engineering and Computer Sciences. These changes were controversial. In part, it was not obvious that computer science should be an independent discipline. More importantly, while some of the early discussions of the two-department solution argued that the breadth of computer science made a two-department solution desirable, other administrators and faculty members argued that placing computer science in two different places would be inefficient. Concerns about inefficiency were not unfounded; while the Department of Computer Sciences was intended to pursue more mathematically-oriented research and teaching, there were significant overlaps in the courses and research in the two departments. The existence of two departments and the relationship between them continued to be controversial until the Department of Electrical Engineering and Computer Sciences absorbed the Department of Computer Sciences in 1973. This “merger” not only raised significant questions about computer science at Berkeley, but also contributed to decisions about the shape and position of computer science at other institutions, including MIT and the University of Pennsylvania. The merger provided justification used to keep computer science within electrical engineering departments.

Drawing on archival materials such as letters, memos, and reports, I argue that the controversy over the position of computer science at Berkeley was in fact a controversy about the identity of computer science as a discipline. Importantly, the different spaces for computer science within the university assumed different practices of scientific knowledge production, either more closely aligned with mathematics or with engineering, and each of these alignments entailed different identities for the computer scientist, with important implications for gender in computer science. While the historical scholarship addressing the history of computer science has largely focused on specific subdisciplines or on public conversations and widespread discourses (Dick 2011; Ensmenger 2010, 2015; MacKenzie 2001; Mahoney 2011), this paper expands on this literature by examining how the institutionalized relationship between electrical engineering and computer science within the university context mattered to the development of computer science as an autonomous discipline. Additionally, while there are rich discussions within the history of the disciplines on discipline formation (Biondi 2012; Leslie 1993; Olesko 1991; Rojas 2007), this paper complicates this historiography by looking at the history of a discipline at the boundaries between science, mathematics, and engineering.