Software as an Embodied Phenomenon: Cognitive, Social and Cultural Aspects of Programs and Programming

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Abstract

"Practice," suggests Wenger, "is first and foremost a process by which we can find the world and our engagement with it as meaningful." What, then, should we make of the practice of programming? Developing software is a complex and demanding task, and a range of studies have explored cognitive aspects of programming -- problem-solving, manipulation of formal systems, representational aspects of languages and environments, and so on. However, software development is also situated in social, organizational and cultural contexts that shape and give meaning to the activities that arise within them. The metaphors that shape the ways in which we encounter and imagine software systems are cultural currency as much as cognitive artifacts. In this talk, I want to consider some aspects of software as an embodied phenomenon, that is, as one that shapes, and is shaped by, the broader contexts within which it is produced, and through which collection social meaning is enacted.