

What Does it Mean to Know Computer Science? Perspectives from Gender Research

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Abstract

The approaches to knowledge and epistemological basis for computer science (CS), on which research and education as well as development of applications are founded, are fundamental for its production of knowledge. In this article we call attention to and claim the need for research that focuses the epistemological basis for CS. By this, we are not primarily interested in this basis per se, but argue that the connection between the epistemology of CS and the practices of the discipline need to be elucidated. These connections are commonly overlooked, not to say neglected. Our position is that these bases are essential, not the least for educational practice. In this paper we raise the issue of how gender research developed within science and technology can be used within computer science, to approach and discuss foundations of the discipline, and what the implications of this reflection are for CS education. After an introduction, which serves to motivate the questions raised, we discuss issues concerning the foundations of computer science. We then introduce gender research, as we use it, and present some points where this type of research can contribute to the question “What does it mean to know CS?”.