Improving Computer Science Curricula for Accessibility and Higher Engagement

(Technical Report in Computer Science)

Overcoming the Digital Divide among Youth

(STS Research Paper)

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by

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Preface

More and better computer science (CS) education in K-12 schools can better prepare students for personal and career success, and thereby diminish the digital divide.

In K-12 classrooms, successful CS education requires a well-designed curriculum. The proposed curriculum introduces computer science during secondary education and prioritizes student engagement through innovative teaching methods. It teaches fundamental non-technical skills alongside foundational concepts to promote students' participation in the professional field. In public schools, CS education can serve students regardless of socioeconomic status. The skills it imparts can improve students' career opportunities, thereby diminishing the digital divide.

In the United States, numerous social groups demand more and better CS education (CSEd) in K-12 schools. These groups' strategies vary, reflecting the diverse interests, ideas, and values of their constituents.