"Bridging the Digital Divide": Developing Culturally Relevant Computer Science Education for African Girls

Awuku Gloria
Mega Mind it Solutions, Delhi

Abstract:

As a computer science researcher from Africa, I have witnessed the vast potential of technology to drive socio-economic development and empower marginalized communities. However, the digital divide persists, with African girls and women being disproportionately underrepresented in computer science fields. This presentation explores the development of culturally relevant computer science education for African girls, drawing on my research in Ghana, Nigeria, and South Africa.

Through a mixed-methods approach, combining surveys, interviews, and focus groups, I investigated the barriers to computer science education for African girls, including lack of access to resources, limited role models, and culturally irrelevant curricula. I then developed and piloted a culturally responsive computer science curriculum, incorporating African contexts, languages, and pedagogies.

Results show significant improvements in African girls' computer science knowledge, skills, and confidence, as well as increased interest in pursuing computer science careers. This presentation argues that culturally relevant computer science education is critical to bridging the digital divide and empowering African girls to become active participants in the global digital economy.

Keywords:

computer science education, African girls, cultural relevance, digital divide, diversity and inclusion.