

Making Computing Meaningful to All Students

What's going on?

The world of computing is known, even by other scientists, for not being fair to everyone. It lacks diversity, and this is a critical problem since it means computer scientists lack a wide range of viewpoints and knowledge that different perspectives can offer. But, the underrepresentation of women and people of color isn't due to their lack of interest or talent. Rather, biased societal perceptions persist about who belongs in computing that ultimately limits underrepresented students' access to quality and culturally relevant computing curriculum and pedagogy.



What is it?

The more meaningful we can make computing to underrepresented students, the more engaged they will become in learning the material. Underrepresented students were asked directly about how to make computing more meaningful, and they shared about wanting creative freedom, clearer connections to real life, and caring teachers.



Why does it matter?

Since computing touches every career field and each of our lives individually, it is important to ensure that students from minority backgrounds feel confident in their ability to study computing. In particular, empowering students to use CS in ways that support their identity and agency while challenging discrimination in unfair computing systems will lead to greater engagement with the field.



How to use it?

- **Creative freedom:** Give students projects that encourage personal expression and make a positive impact on their communities while being able to demonstrate improvement in their computing skills.
- **Expand Views:** Support students' understanding of computing's impact on and connections to our everyday lives.
- **Teacher Care:** Show care for individual students, learning community, and the subject matter you're teaching.



Making CS Meaningful

Research

Podcast



Based on: Wei, W., Ryou, J. J., & Morris, A. (2023, March). Centering Minoritized Students' Perspectives: What Makes CS Learning Consequential. In Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 1 (pp. 666-672).