Maseeh College of Engineering and Computer Science
Office of the Dean

Post Office Box 751
Portland, Oregon 97207-0751

503-725-2820 tel
503-725-2825 fax

Portland State
UNIVERSITY

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Dear Honorable Chair Doherty and Members of the Education Committee,

In 2020 Computer Science is essential knowledge. Computers operate our cars (even the brakes!). Computers track our money. Computers tally our elections and curate the databases that determine who can vote. Computers mediate our access to news and information. Computers are our principal platform for communication. Knowledge of computing is expected in almost all family-wage jobs.

Today computing is no more an enrichment subject than are reading and writing.

And yet access to computing education in Oregon is not universal. Our state does not require that all students learn about computing.

Worse, we do not provide equitable access to computer science knowledge. College Board data shows that Oregon students taking the Computer Science Advanced Placement tests have the least representative demographics of any Advanced Placement subject area. Effectively, we are segregating access to computer science knowledge by race, gender, and wealth.

We have been teaching computer science in Oregon for over 50 years. We have done this with good intentions for diversity and inclusion, but good intentions have not created equity. To create equitable access to computer science education we must study the inequities that exist and explicitly disrupt them.

University of Oregon Professor Joanna Goode has studied the inequities in Computer Science education. She is one of the authors of the revolutionary book, Stuck in the Shallow End, which documents the inequitable computer science education practices found in the Los Angeles school district. From this research, she partnered with Gail Chapman to develop an intentionally inclusive curriculum called Exploring Computer Science (ECS) that uses culturally responsive pedagogy and active, inquiry-based learning to create an intentionally inclusive introductory computer science course for all students. In over a decade of experience in Los Angeles, the ECS curriculum has been refined to be one that engages and retains students from a demographic that reflects the community the school district serves. This curriculum, and its associated Professional Development Protocol, has been shared around the country.

It has been an honor to work with Professor Goode and our colleague Jill Hubbard to bring the ECS curriculum to Oregon. Over the past two years we have seen ECS brought into classrooms from Ontario to Florence, and from Roseburg to Clatskanie. One teacher in a majority Hispanic high school who has won awards for the pass rates of their mostly white and mostly male AP CS students, is now seeing the demographics of their classroom change to reflect their student body as they learn to follow and trust an intentionally equitable curriculum.

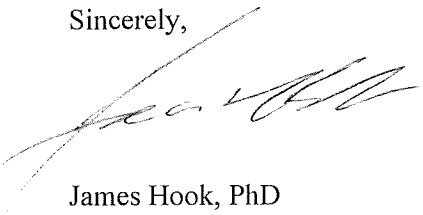
Education is a force that replicates privilege and power. Unless intentionally disrupted, so-called "color-blind" education that is not backed up by equitable pedagogical practices will continue to preserve inequities.

All Oregonians need computer science education because Computer Science is essential knowledge. To reach all Oregonians, we must prioritize intentionally equitable educational opportunities, such as those developed by Professor Goode.

As we chart Oregon's future for Computer Science Education we need to keep equity at the top of the agenda. We need to give education researchers and social scientists a seat at the table and empower them to demand that all initiatives be evidence-based and equity-focused.

To do any less is to deny Oregon's children essential knowledge.

Sincerely,



James Hook, PhD
Professor, Computer Science
Associate Dean, Maseeh College of Engineering and Computer Science
Co-Director, STEM Education and Equity Institute, Portland State University
Principal Investigator, Computer Science for Oregon