



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

Date: 03/28/2018
Time: 02:00 PM
Location: 308
Committee: House Finance

Department: Education

Person Testifying: Dr. Christina M. Kishimoto, Superintendent of Education

Title of Bill: SB 2384, HD1 RELATING TO EDUCATION.

Purpose of Bill:

Department's Position:

The Department of Education (Department) supports the intent of SB 2384 HD1.

Currently, the Department is developing a multi-year comprehensive computer science plan. This plan includes implementation dates, benchmarks and strategies to integrate design thinking through the Science Technology Engineering Math (STEM) program and to identify coding curricula through the Computer Science (CS) program. STEM and CS program leads are collaboratively exploring additional ways to blend design thinking strategies within other computer science areas (e.g., computing systems, networks and the internet, data and analysis, algorithms and programming, and impacts of computing).

To ensure equitable and expanded access to computer science learning opportunities for K-12 students by 2022, the Department is addressing the following eight deliverables:

- 1) Adoption of Computer Science Standards aligned to national efforts,
- 2) Development of single courses and pathway courses for maximum student access,
- 3) Identification of standards-based curricular resources,
- 4) Quality K-12 professional development in computer science including fellowships and externships for teachers,
- 5) A schedule of academic competitions in partnership with business, industry and government,
- 6) Expansion of regional and school-based student demonstrations,
- 7) Increased partnerships for access to meaningful internship and apprentice models, and
- 8) Improved career counseling and information sharing around current and emerging computer science related work and study opportunities in Hawaii.

During Spring 2018, the Department will solicit internal and external stakeholder feedback on the draft computer science plan.

Thank you for this opportunity to provide testimony on SB 2384 HD1.

The Hawaii State Department of Education seeks to advance the goals of the Strategic Plan which is focused on student success, staff success, and successful systems of support. This is achieved through targeted work around three impact strategies: school design, student voice, and teacher collaboration. Detailed information is available at www.hawaiipublicschools.org.

SB-2384-HD-1

Submitted on: 3/27/2018 10:45:01 AM

Testimony for FIN on 3/28/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ian Kitajima	Oceanit	Support	No

Comments:

Aloha and mahalo for the the opportunity to submit testimony in SUPPORT of this bill. Oceanit has been a leader in introducing Design Thinking to industry but also to public and private education in Hawaii since 2010. Why? Though Oceanit is a cutting edge technology developer, creating the things we'll use in the future, technology is not enough. Paraphrasing a quote for David Kelley, the co-founder of the Stanford Design School where Design Thinking was born, the human element is as important as the technical and business elements. If we want to teach our keiki to create the future, versus wait for it to surprise them, then teaching them Design Thinking and the mindsets, and watch them be fearless and stay fearless as they become adults.

As for coding, it's "superpower" like Design Thinking. Coding is a 21st century skill and language that all students should have. Coding may become a career choice for some but more importantly, coding is a means to create more creative problems solvers, and critical thinkers for Hawaii. One of our long term goals via our Alitno Coding for Non-Coders outreach programs is to teach every teacher In Hawaii coding so 100% of our students can be exposed to coding in their classrooms. In 2017, we created one of the first 3 credit professional development trainings for non-technical teachers to learn coding. Teachers learn coding in 4 days, and then over 2 days develop for example, new social studies curriculum that incorporates coding. By doing this, EVERY student has the opportunity to be exposed to coding via their classroom teachers, no matter the subject. Then when DOE is ready, we'll have thousands of teachers trained in coding, ready to go! Mahalo for the opportunity to support SB2384. Ian Kitajima, on behalf of Oceanit.

March 28, 2018

Representative Sylvia Luke, Chair
Representative Ty Cullen, Vice Chair
House Committee on Finance
Conference Room 308
Hawai'i State Capitol
Honolulu, HI 96813

LATE

RE: Testimony on SB 2384, HD1 Relating to Education

Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Christine Sakuda and I serve as the executive director of Transform Hawai'i Government (THG), a coalition of organizations and individuals who believe in improving government services for every Hawai'i resident on every island. THG supports Senate Bill 2384, HD1 Relating to Education, which requires the Department of Education to develop a comprehensive plan to integrate design thinking and coding in middle, intermediate, and high school curriculums, and to submit the plan to the Legislature prior to the regular session of 2019.

THG was established to promote an open, transparent and responsive Hawai'i government. We advocate improving government business practices through technology to ensure government employees, residents and businesses have convenient and secure access to reliable information and data on demand. Our goal is to have government services streamlined, integrated and delivered in ways that exceed the expectations of the public and the needs of Hawai'i businesses.

We therefore support the passage of SB 2384, HD1 because it will facilitate the development of our state's future information technology workforce and position Hawai'i's own students as competitive leaders in highly skilled positions within the public and private sectors.

According to Code.org: "Computer science drives innovation in the U.S. economy and society. Despite growing demand for jobs in the field, it remains marginalized throughout the U.S. K-12 education system."

This is true in Hawai'i but does not have to remain so. In fact, SB 2384, HD1 presents an opportunity for Hawai'i to become a leader among states by proactively integrating coding into lesson plans. The earlier students are introduced to coding, the more comfortable and prepared they are when they encounter more complex and in-depth learning experiences in college and workplace training. In addition, early exposure to coding promotes a view among children that computers are more than toys and sources of entertainment but also valuable resources and tools.

Moreover, exposure to design thinking principles will likewise encourage students to embrace creative strategies in problem-solving, which will aid them in school, social and future career contexts.

According to “Computational Participation: Understanding Coding as an Extension of Literacy Instruction” (Burke, O’Byrne, & Kafai, 2016, p. 372): “Coding is the veritable new literacy of the 21st century. Just as reading and writing were once the demarcation line between the literate and illiterate, so now is the capacity to code.”

Ultimately, integrating coding, as well as design thinking, will serve to better prepare Hawai‘i’s keiki to be more than just consumers of technology, but also creators and productive members of the workforce of tomorrow.

Thank you for the opportunity to provide testimony in support of this important bill.