THE SENATE
TWENTY-NINTH LEGISLATURE, 2018
STATE OF HAWAII

S.B. NO. 2384

JAN 19 2018

A BILL FOR AN ACT

RELATING TO EDUCATION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. (a) The department of education shall develop a comprehensive plan to integrate design thinking and coding in middle, intermediate, and high school curriculums. The plan shall include but not be limited to implementation dates and benchmarks to show progress of the implementation of design thinking and coding in middle, intermediate, and high school curriculums.

(b) The department of education shall submit the plan, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2019.

SECTION 2. This Act shall take effect upon its approval.

INTRODUCED BY:

S.B. NO. 2384

Report Title:
School Curriculum; Coding; Design Thinking; Department of Education

Description:
Requires the department of education to develop a comprehensive plan to integrate design thinking and coding in middle, intermediate, and high school curriculums. Requires the department of education to submit the plan to the legislature prior to the regular session of 2019.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

DAVID Y. IGE
GOVERNOR

DR. CHRISTINA M. KISHIMOTO
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

LATE

Date: 03/14/2018
Time: 02:00 PM
Location: 309
Committee: House Education

Department: Education

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

Title of Bill: SB 2384 RELATING TO EDUCATION.

Purpose of Bill: Requires the department of education to develop a comprehensive plan to integrate design thinking and coding in middle, intermediate, and high school curriculums. Requires the department of education to submit the plan to the legislature prior to the regular session of 2019.

Department's Position:
The Department of Education (Department) supports the intent of SB 2384.

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.

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.

TRANSFORM
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LATE

March 14, 2018

Representative Justin Woodson, Chair
Representative Sam Satoru Kong, Vice Chair
House Committee on Education
Conference Room 309
Hawai'i State Capitol
Honolulu, HI 96813

RE: Testimony on SB 2384, Relating to Education

Chair Dela Cruz, Vice Chair Keith-Agaran, 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, 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 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 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.