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GOVERNOR'S OFFICE OF SCIENCE, INNOVATION & TECHNOLOGY

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Brian L. Mitchell
Director

PUBLIC MEETING MINUTES

Name of Organization: Computer Science Subcommittee
Date and Time of Meeting: Tuesday, January 16, 2018 @ 3:00 P.M.
Place of Meeting: Nevada State Library and Archives
Governor's Office of Science Innovation and Technology
100 North Stewart Street, Suite 220
Carson City, NV 89701

Please use the following numbers to join the conference Call:

North: 775-687-0999 or
South: 702-486-5260
Access Code: 70987 push #

I. Call to Order / Roll Call:

The Computer Science Subcommittee was called to order by Chair Mark Newburn at 3:00 p.m. on January 16, 2018, on the tele-conference remote site, listed above.

Members Present

Mark Newburn
Cindi Chang
Dave Brancamp
Dr. Andreas Stefik
Heather Crawford-Ferre
Frank Matthews
Kimberly Moody
Melissa Scott
Rob Sidford

Members Absent

Dr. Pavel Solin
Kindra Fox
Kris Carroll
Brian Mitchell

Staff Present
Debra Petrelli

A quorum was declared.

II. Public Comment (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)

Chair Mark Newburn

There was no public comment

III. Welcoming Remarks and Announcements

Chair Mark Newburn

Chair Newburn welcomed everyone. He commented that he and Ms. Chang were asked by Code.org to participate in a national webinar by the National Association of State Boards of Education (NASBE) because Code.org believes what Nevada is doing in computer science is exemplary for the whole country.

IV. Approval of the Minutes from the October 30, 2017 Meeting

Chair Newburn asked if there are any corrections to the October 30, 2017 Minutes as written. None were made. Melissa Scott made a motion to approve the Minutes of January 1, 2018, as written. Dave Brancamp seconded the motion. The motion passed unanimously.

V. Update on K-12 Computer Science Standards (For information only)

Dave Brancamp, N.D.O.E., Director-Office of Standards and Instructional Support
Cindi Chang, N.D.O.E., Education Programs Professional -Office of Standards and Instructional Support

Mr. Brancamp thanked Cindi Chang for guiding the writing team in their efforts and participation, and said the standards have been met and approved by the Academic Standards Council as of last week. He said next they will go to the Nevada State Board on Thursday, January 18, 2018, and if approved they will begin adding the necessary legal language, and then school districts can begin the process of what they need to add or change in curriculum over the next year so construction can formally start.

Ms. Chang said she was very proud of the writing team and all the work they put into the standards. She also thanked everyone at the Regional Professional Development Program (RPDP) for doing the crosswalks. She added the Chair of the Academic Standards Council was very impressed with the glossary, the crosswalks and all of the support included for teachers. She added she will be putting together in the near future, a seminar series for school districts as well as for elementary, middle and high school teachers to answer questions and address concerns with the Computer Science Standards. She commented there is currently a long 85-page proposed version and a condensed proposed version of the computer science standards which have been added to the Department of Education's Computer Science webpage.

VI. Update on Senate Bill 200 Funding Allocations (For information only)

Dave Brancamp, N.D.O.E., Director-Office of Standards and Instructional Support
Cindi Chang, N.D.O.E., Education Programs Professional -Office of Standards and Instructional Support

Ms. Chang said she was notified that she would be handling the funding allocations for SB 200 in late December 2017. She commented that the allocations went out about ten days later. She said Washoe and Clark Counties have received their packages and notification. She added that she had discussed with Jesse Welch, Assistant Superintendent of Curriculum and Professional development for the Clark County School District, ideas on what these schools could spend the funding on in order to keep the purpose of SB 200 in mind as they go forward. She said the rural school districts and charter schools have also received their award letters. There was further discussion on funding the rural school districts and charter schools in order to keep with how the bill was written and the true meaning of computer science, making it fair for everyone. Ms. Chang added that some applications demonstrated confusion by looking at this grant as more of a way to purchase equipment and possibly training on how to use that equipment. The true purpose of SB 200 is to provide education and training to teachers in the classroom who will be teaching computer science to their students. Teachers need that professional development in order to be successful in computer science moving forward. She said her letter to everyone was to focus on the professional development aspects first, by providing training to those teachers, administrators and counselors.

Ms. Chang explained that the packets sent out contained the award amount along with the necessary forms to be filled out for reimbursement for the funds they spend towards computer science education. She said each awardee must submit to her a form on what they intend to spend the funding on and in turn she will either approve for reimbursement or make suggestions to align with SB 200. Once approved, they can spend funds as approved and subscribed and a reimbursement will follow from the State of Nevada.

Ms. Moody asked whether the funding will have any carry-over from this year to next year, due to the lateness of the funding going out. Ms. Chang commented she will be starting next year much earlier in getting those applications out. She added that she believes if funding is not used this year, it will go back into the General Fund. Typically, these grants do not roll-over. Chair Newburn asked how she reached out to charter schools. Ms. Chang replied through the State of Nevada Public Charter School Authority. The group discussed charter school applications and funding multiple charter schools versus school districts. The group further discussed Local Education Agency's (LEA's) and their role in the grant process and possibly getting further guidance from the Charter School Authority for charter schools.

VII. Update on Senate Bill 200 FAQ Page (For information only)

Cindi Chang, N.D.O.E., Education Programs Professional -Office of Standards and Instructional Support

Ms. Chang updated the group on the SB 200 Frequently Asked Questions (FAQ) page. She said a PowerPoint presentation of SB 200 had been sent out to all school districts and because so many questions started coming in, a FAQ was developed with those questions. She asked that all members of the group participate in adding any more questions as well as help to collectively answer some of the questions already presented. Chair Newburn suggested all

members work on this document and present their answers and questions at the next meeting. Ms. Moody asked if the intent is to have multiple FAQ sheets for specific target audiences or just finalize this document as general information. Ms. Chang said that was one of the original intents of the Department of Education on their webpage. She pointed out a section entitled “what is my role” which should help to divide between audiences. The group continued to discuss computer language used and the clarity of questions, as well as programs and their descriptions. Chair Newburn said the group can continue to work on this FAQ page offline.

VIII. Update on CS Professional Development Efforts (For information only)

Frank Mathews, Regional Professional Development Program (RPDP)

Mr. Mathews with the Regional Professional Development Program (RPDP), updated the subcommittee on Computer Science professional development (PD) efforts. He said Nevada will be offering classes/workshop at the Elementary, Middle School and High School Level this year. Elementary Level: We will have six facilitators that will be trained by Code.org March 3 - 5, 2018 in San Antonio, Texas, consisting of four facilitators for the South, one for the Northwest and one for the Northeast. He said these facilitators will start training as soon as they get back from their training. The elementary training, Computer Science Fundamentals is geared for K-5.

Computer Science Discoveries (CSD): Two new facilitators will be added from the South. The demand for CSD is very strong and he anticipates two cadres taking the five-day course in June of 2018.

Computer Science Principles (CSP): He currently has three facilitators and will be adding one more. The demand isn't as robust as he would like, however, he said a number of our schools currently teaching CSP are adding sections and teachers. Additionally, Washoe County looks to have approximately six teachers and a few more from around the State. Mr. Mathews added that applications have just opened so he will update on the numbers at a later date.

IX. Discussion and Possible Vote on CS Teacher Licensing/Endorsement Requirements and NAC Changes (For possible action)

Melissa Scott, N.D.O.E., Education Programs Professional - Office of Career and Technical Education

Cindi Chang, N.D.O.E., Education Programs Professional - Office of Standards and Instructional Support

Ms. Scott explained they had anticipated being on the January 18, 2018 State of Nevada Commission on Professional Standards (COPS) meeting agenda, however, this item did not make it onto that agenda for the required approval. She said they will hopefully get on the next meeting agenda and will be presenting the following three computer science teacher endorsements;

- Computer Literacy
- Computer Applications
- Computer Programing

She pointed out that a repeal has been requested for the six credit requirements for Computer Literacy. According to Licensure, anyone who has an elementary license can teach any subject at the elementary level, with no additional endorsements necessary for those teachers.

Ms. Scott added that for middle and high school, the current Computer Applications endorsement will be changed to Technology Based Applications and Computational Thinking. It will have the nine semester hours of coursework that cover: (a) Three semester hours of coursework in methods for teaching computer science; (b) A course of study on computer science concepts, and (c) Methods to teach computer applications. She added that Methods for Teaching Computer Science and Computer Science Concepts courses are offered by the Regional Professional Development Program (RPDP).

Ms. Scott explained that the Computer Science Computer Programming endorsement will be called Advanced Computer Science and is for high school. To receive an endorsement to teach Advanced Computer Science, a teacher must have a valid high school special license or a valid license to teach special education and must complete: twelve semester hours of coursework consisting of at least: (a) Three semester hours of coursework in methods for teaching computer science, and (b) Nine semesters hours of coursework in computer science, which may include, without limitation, instruction in programming languages OR passage of specialty PRAXIS exam in Computer Science.

The subcommittee further discussed and reviewed the three endorsements, as well as PD courses offered by RPDP and the University of Nevada, Las Vegas (UNLV). There were further questions on industry experience that may accompany a teaching license and whether that would be taken into account as an industry endorsement for that teacher. Ms. Scott suggested that this group, when putting out guidance, needs to decide whether training alone is sufficient when only teaching AP Principals or whether a teacher would need an endorsement, i.e. Technology Based Applications and Computational Thinking. We need to address this question.

Ms. Chang and Mr. Mathews further described the professional development courses that RPDP is currently offering teachers for professional development in computer science, which will parallel with Methods and Concepts courses, to include Fundamental Computer Science for elementary school; Computer Science Discoveries for middle school; and AP Computer Science Principles for high school.

Chair Newburn asked how (for example) these endorsements would effect a math or english teacher if they choose to also teach computer science principles and whether Code.org training would cover everything in getting them endorsed. Ms. Scott suggested, as in the Nevada Department of Education's Correlation Directory, (available from the Department of Education's Office of Educator Development and Support) which is used by principals and school districts in their exception reports for educator licensing, a statement might be added to include; "If you teach 50 percent or more of computer science, an endorsement to teach AP Computer Science Principles is necessary." The group was in agreement, except for the actual percentage amount. Ms. Moody asked whether teachers who are currently teaching Computer Science or Computer Technology would be offered to be grandfathered in, or be required to get a current endorsement. Ms. Scott said that for middle school teachers currently teaching computer technology concepts with the appropriate endorsements, they would not need an

additional endorsement, they may only need training. Ms. Moody agreed to add any other specific questions she might have to the FAQ page. Chair Newburn suggested if adding the above statement with a specific percentage included, they vote on CS Teacher Licensing/Endorsement Requirements and NAC Changes. Ms. Scott made a motion, contingent upon clarification received on the specific percentage of time computer science is taught as discussed, to endorse/approve the Computer Science Teacher Licensing/Endorsement Requirements and NAC changes. Ms. Chang seconded the motion. The motion passed unanimously.

X. Update on ECEP Conference (For information only)

Cindi Chang, N.D.O.E., Education Programs Professional -Office of Standards and Instructional Support

Ms. Chang said the Expanding Computer Education Pathways (ECEP) Conference will be on January 25 - 27, 2018 in Atlanta, Georgia. In attendance and representing Nevada will be Cindi Chang, Kim Moody, Melissa Scott and Dave Brancamp. She said the context for the conference will be about data collection and how we gather and analyze the data coming our way. She said it will also cover the strategic areas of how we are Broadening Participation in Computing (BPC); Defining BPC, Rethinking BPC, Measurement Systems in BPC and Building Sustainable Pathways. Chair Newburn suggested a debrief of the conference be included as an item on the next Computer Science Subcommittee's meeting agenda.

XI. Discussion on ECEP Grant Award and Nevada Computer Science Summit (For possible action)

Chair Mark Newburn

Cindi Chang, N.D.O.E., Education Programs Professional -Office of Standards and Instructional Support

Ms. Chang said we originally asked for \$15,000 and we actually were awarded a \$20,000 ECEP Grant. This will make our 2018 Nevada Computer Science Summit a reality. She said we now need to make a callout for participation from everyone. The proposed date is June 11, 2018, 8:00 A.M. to 5:00 P.M. at the Innevation Center by SWITCH, located at 6795 S. Edmond Street, 3rd Floor in Las Vegas. She added that all financials associated with the summit will need to be closed out by the end of July 2018. She said the Governor's Office of Science, Innovation and Technology (OSIT) has agreed to be the fiscal agent for the Computer Science Summit. She said it is this group's responsibility to put this summit on and get the word out and publically announced. She added this will really help in moving forward, shaping what computer science is going to look like for our state and answer many questions. She said she and Frank Mathews with RPDP, have had conversations about this summit being a "kick-off" to a week of professional development (PD) with RPDP taking over the day after with four days of training in Principals, Fundamentals and Discoveries. She further discussed the proposed agenda and suggested sending out a "Save the Date" once a firm date is agreed upon. Chair Newburn asked to get clarification with Frank Mathews and RPDP on the PD "kick-off" and suggested sending a Doodle-Poll out to members of the subcommittee with other potential dates for the summit. He further suggested the CS Summit be addressed again at the next meeting of the Computer Science Subcommittee. Ms. Crawford-Ferre offered assistance and the services of Nevada Ready 21 with some of their programs and computer science groups to provide a break-out session for the summit.

XII. Consider Future Agenda Items for the Next Meeting (For information only)
Chair Mark Newburn

Chair Newburn suggested the following topics for the next meeting agenda:

- Report and Update on Frequently Asked Questions (FAQ) Sheet
- Report and Update on Computer Science Summit
- Report and Update on ECEP Conference
- Report and Update on CS Teacher Licensing/Endorsement Requirements and NAC Changes

XIII. Determine Next Meeting Date (For possible action)
Chair Mark Newburn

Chair Newburn said the next meeting will be at the call of the Chair.

XIV. Public Comment (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)
Chair Mark Newburn

There was no public comment.

XV. Adjournment
Chair Mark Newburn

Chair Newburn adjourned the meeting at 2:25 P.M.