What I learned on my summer vacation . . .

More than 60 K-12 teachers from the Chicago area attended CS Ed Camp hosted by Computer Science Teachers Association and the UIC CS Department in the CS lounge and labs on June 29-30th.

Computer Science Teachers Association holds CS Ed Camp for K-12 instructors

This past weekend over 60 Chicago-area CS teachers helped run the inaugural CS Ed Camp, an “unconference” that was run by the teachers and for the teachers of the 440-member Chicago Computer Science Teachers Association (CSTA). Funded by Google and sponsored in part by the UIC CS Department, the “unconference” format allowed teachers on the spot to suggest topics in which they were the most interested.

The Computer Science Teachers Association (CSTA) has grown immensely since it was founded in 2004 by the Association of Computing Machinery (ACM). The idea was to provide opportunities for K-12 teachers and their students to better understand computer science and to more successfully prepare instructors to teach and learn.

Fast forward to today where CSTA’s growing membership of over 25,000 professionals continues to help empower, engage and advocate for K-12 CS teachers worldwide. Chicago is at the forefront of the growing need to educate more grade school students (and teachers) with its Computer Science for All (CS4All) initiative at Chicago Public Schools (CPS), a movement to bring computer science education to every student in the CPS system.

Due to the overwhelming demand of educating teachers with computer science curriculum, the Chicago chapter of the CSTA set out to create a CS Education “unconference” where CS teachers can learn from each other’s’ best practices, lessons and curriculum. Even though there was no obligation or requirement to attend CS Ed Camp, registration was full within six hours of opening.

CS Ed Campers post their ideas for different topics to discuss as part of the “unconference” participant-led format. Topics ranged from how to teach cyber security to how to get real-world experience in the classroom.
“We were concerned about getting enough attendees to reach critical mass to provide energy for the event, since it is, in fact, participant-led,” said Prof. Dale Reed, a founding member of Chicago CSTA. “Watching the registration numbers grow confirmed in our minds that this event seems to be meeting a real need, for teachers to be able to exchange ideas on their own terms.”

To help open the camp open up to more teachers, the UIC CS Department helped provide funding for food and other accommodations so an additional 20 participants were able to register with all of the funding for the camp provided by a grant from Google which Prof. Reed put together and submitted.

“This was the most people for one of our CSTA events ever,” said Prof. David Hayes, who helped administer the camp and presented one of the anchor sessions. “Everyone was interested in participating too. Getting together with other people who share your enthusiasm is so energizing. I also think it helped teachers to know that they are not alone in wanting to provide their students more CS learning opportunities.”

The camp was broken down into four anchor sessions introducing cryptography, the Google CS First curriculum, mobile web app development and micro:bits, in addition to the unconference session topics that participants voted on at the beginning of the camp.

“I’m eager to learn the curriculum to help educate my students,” said Mike Trahey from Wells Community Academy High School in Chicago. “I look forward to collaborating with other teachers and taking it all in so I am more prepared in the fall.” This will be Trahey’s first year teaching CS.

Also helping to facilitate the CS Ed Camp were members of CPS’s CS4All program, which has grown considerably in size since CPS made CS a graduation requirement. The new requirement is in effect for students starting with the class of 2020 who will be juniors this fall. Andy Rasmussen and Faythe Brannon were representing CS4All.

“We feel the CS4All program and curriculum has the capacity to change the mindset of students from consumers [of content] to creators,” said Brannon. “We want to provide every student with more opportunities and options once they graduate high school.”

The push for more teachers to have the necessary tools and resources to teach CS in the Chicago area was more of a ground-up, grass roots movement.

“These teachers are hungry for meaningful CS material for students,” said Hayes. “Teachers have been doing great work on their own in their schools just to provide more opportunities for their students.

This camp was a chance for teachers to get active and engaged in ideas and tools they can bring into their classroom next year.”

For the Chicago CSTA, they believe this is only the beginning for educating and preparing CS teachers.

“The history of educational research is rife with examples of well-meaning and well-funded efforts vanishing after the funding dries up, because they have often been an imposition of values and practices imposed from the outside, said Reed. “A culturally relevant approach celebrates, supports and builds upon the expertise that existing teachers bring to the table. CS Ed Camp builds on this ethos of valuing what teachers have to offer. We have a sense that this ethos and model could be both powerful and replicable elsewhere.”