CHM EDUCATOR

Computer History Museum

EDUCATOR SPOTLIGHT: TARA COBURN

I am a teacher and director of the Academy of Hospitality & Tourism at Oak Grove High School in South San Jose. We are a large high school with a diverse student population. The academy is a three-year program that fosters small-community learning within the larger school and is funded by a California Partnership Academies grant. Our focus is to expose students to the hospitality and tourism industry while helping them build important 21st century skills such as collaboration, creative problem solving, effective communication, and entrepreneurialism.

We first visited the Computer History Museum (CHM) in the spring of 2015 to work on a STEM design challenge sponsored by our partner, The Network for Teaching Entrepreneurship (NFTE). It was then that the students and I came to appreciate the Museum and its exceptional staff. The scope of artifacts featured in the Museum is excellent, and the students enjoyed learning about past technologies and their influence on current technology. The docents who helped lead the tours were well informed and their knowledge helped spur student interest in the day's activities, which included student teams identifying a tech-based solution to a significant global or community based problem and pitching their solution to a panel of judges comprised of CHM and NFTE staff members.

We were excited when we found out that the Museum hosts a similar event, Talking to the Future, that connects students with tech innovators, so we returned this fall to participate. Many students who came in the spring returned to experience Talking to the Future. Students enjoyed learning from a panel of innovators, trying out new technology, and participating in design challenges in which they brainstormed, wire-framed, and prototyped wearable technology devices.

The most valuable thing about taking students to CHM to participate in events is that students get to work with professionals and learn what industry is really like. They glean valuable advice from professionals in multiple industries and work with them to solve important problems using technology. For many, these experiences are the first time they have experienced building and developing tech. As an educator, my favorite part of taking students to CHM is providing them with new perspectives on what they can do. Who knows? One of them could come up with the next big thing here in Silicon Valley.

IN YOUR CLASSROOM: TALKING TO THE FUTURE

On October 22, CHM welcomed 94 students from four local high schools for our semi-annual Talking to the Future program. The students spent the day with three tech innovators—or "rock stars"—all doing amazing things in the field of wearable technology. Rock stars for the day were Kim Du, VP of corporate development at Emotiv; Jamie Sherman, a cultural anthropologist doing research at Intel; and Aubrey Shick, a user-experience designer for wearable and robotic technologies.

The day included a panel discussion; an interactive showcase in which students could experience each innovator's work; and design challenges led by the innovators, based on real issues faced in the development and use of wearable technologies. The challenges encouraged students to think like engineers by asking questions, considering user experience, developing prototypes, testing, and making improvements.

Though the program is over for 2015, there are lots of ways to incorporate the ideas of Talking to the Future in the classroom. Take, for example, the challenge posed by Jamie Sherman in which students produced a prototype of a wearable device. Students worked in small groups, interviewing each other to identify something another group might need or want. Each group then designed a device for their users and built prototypes before returning to the users, getting feedback, and adapting their design based on user input. This challenge emphasized the importance of collaboration, communication, understanding your user, and the iterative nature of creative problem solving. And students used basic craft materials such as felt, beads, glue, and pipe cleaners to build their prototypes, making it easy to replicate this activity in a classroom.

To learn more about about the Talking to the Future rock stars and their work, a video of the panel is available here. A lesson plan for Jamie Sherman's activity can be found in our Teachers' Toolkit. For more information, contact Stephanie Corrigan, education specialist for school and teacher programs: scorrigan@computerhistory.org; 650-810-1045.

ARTIFACT SPOTLIGHT: FURBY

Every few years a toy sensation hits the shelves and the news, sending parents in a mad dash to find it—Cabbage Patch Kids, Tickle-Me Elmo, pretty much any *Frozen* merchandise, etc. In 1998 that toy sensation was Furby—a furry robot sold by Hasbro that didn't just talk, it actually *learned*.

Each Furby initially spoke only "Furbish," but over time it could learn a new language through human interaction. Furbies learned words in a manner designed to mimic human language acquisition. Furbies could also sense each other; two Furbies placed in close proximity would communicate with each other. These uses of artificial intelligence technology went beyond the traditional talking, moving toy, allowing Furby to learn and change over time. As it says on the Furby's tag, "The more you play, the more they do."

The Furby toy craze lasted only a few years in the late 1990s. Hasbro released Furby reboots in 2005 and 2012, but neither matched the success of the initial toy, despite technological advances and new features. But in its moment, Furby was an innovative way to bring robots home. And the generations of electronic toys that have followed continue to build on the same desire to use technology in fun, creative ways. Visit the Museum's online *Revolution* exhibition to learn more about Furby and robots in our lives.

UPCOMING EVENTS
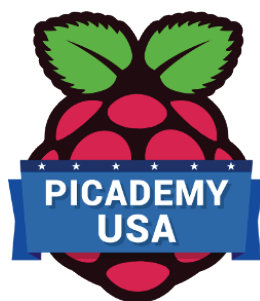
Picademy USA: CHM is partnering with the Raspberry Pi Foundation to offer a pilot of Picademy USA. Over the course of two days, small cohorts of teachers will receive hands-on training and discover the many ways in which the Raspberry Pi—a programmable computer the size of a credit card—can be used in the classroom to support project-based learning across the curriculum, incorporating skills such as computational thinking, coding, and tinkering.

No experience is necessary; Raspberry Pi Foundation and CHM educators will help teachers at all grade levels discover practical ways in which the Raspberry Pi can support and further their use of technology. At the end of the two days, attendees will become Raspberry Pi Certified Educators and join an active network of teachers from around the world.

Picademy USA will take place at the CHM on February 27–28 and April 30–May 1, 2016. Teachers interested applying to the program can learn more here.

Google Field Trip Days: Google Field Trip Days are back for 2016! The Museum will be hosting four Field Trip Days in the spring of 2016 and four more in the fall. These Google-sponsored programs are open to area Title I middle schools. During the day, students explore *Revolution*, see demonstrations of historic computers, participate in hands-on activities, and interact with volunteers from Google. Transportation reimbursements and lunch are provided.

For more information, contact Stephanie Corrigan: scorrigan@computerhistory.org; 650-810-1045.

CALENDAR OF EVENTS, WINTER 2015–2016

Thinking Big: Ada, Countess of Lovelace
December 12, 2015–December 11, 2016

The newest exhibition at the Computer History Museum, *Thinking Big: Ada, Countess of Lovelace,* celebrates the 200th birthday of English mathematician and visionary Ada Lovelace (1815–1852). Drawing on the Lovelace papers held at the University of Oxford's Bodleian Libraries, CHM is the only location in the United States where you can discover these extraordinary papers.

Design_Code_Build
Introductory program: February 20 and March 5, 2016
Advanced program: February 21 and March 6, 2016

- Weekend program open to 6th through 8th grade students.
- Transportation subsidies available for qualified groups; lunch provided.

Google Field Trip Days
February 23 and March 15, 2016

- School-day program open to Title I middle schools (6th–8th grade).
- Lunch and transportation reimbursement provided.

Talking to the Future
February 25, 2016

- School-day program open to high schools (9th–12th grade); participation limited to 100 students.
- Transportation subsidies available; lunch provided.

Picademy USA
February 27–28 and April 30–May 1, 2016

- Open to educators at all grade levels, no programming experience necessary.

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