



From left: Hamish Robertson, a Grade 4 student at Gaspereau Valley Elementary School, and Jasmine Emily Price, a Grade 6 student at Kings County Academy, participate in Creative Computing, which is a free six-week workshop aimed at engaging more youth to pursue digital technology careers and is hosted by Refresh Annapolis Valley. Behind them is mentor Elianna McKinnon, a second-year computer science student at Acadia University.

Heather Desveaux

# Bridging the digital divide

HEATHER DESVEAUX

✉ hdesveaux@gmail.com

Annapolis Valley computer scientist Mike Caplan says there's a problem he wants to solve, but it needs human input: how to engage more youth to pursue studies and careers in the digital technology industry.

This is Caplan's third year facilitating a free six-week Creative Computing workshop twice a week at the Acadia Entrepreneurship Centre at Acadia University for 55 kids ages eight to 13, where they learn computer science skills.

He leads Refresh Annapolis Valley, a community of tech designers, developers and innovators who aim to boost the digital technology culture in the region.

"That's part of what we're trying to solve here is to encourage kids, particularly underrepresented groups like girls, in getting them into the computer sciences," he said. "I tried to run a girls-only class, but there weren't enough numbers."

Instead, there are two co-ed groups — one on Thursday evenings with 22 participants and the other on Sunday afternoons with 33 participants, about a third of

which are female.

Caplan has the help of mentors, male and female, of various ages. Some are computer science students at the university and some have participated in the program before, one as young as nine years old. Over the course of the six weeks, the children learn everything from computer basics to etiquette and coding using Scratch, a free, open-source programming language and online community where you can create interactive stories, games and animations.

On the first day, it's all about old-fashioned getting to know

each other and team building. The children split up into groups and work out names for their teams, like Coding Ninjas, Scratching the Surface and the Unicorn Gamers.

Karen Cann, who works in technology services at Acadia University, enrolled her nine-year-old daughter, Lillian, for the first time in the program because she has concerns about the gender digital divide.

"Both my husband and I are in IT. Women in the technology industries don't have enough of a

Digital divide - Page 2

# Digital divide

continued from Page 1

voice,” said Cann. “And we face losing what we have.”

Cann said she recently attended a seminar on artificial intelligence (AI) where she heard the story about Siri, the virtual assistant developed by Apple that uses voice queries from users.

“What really hit home was that when Siri first came out, all the programmers were male, so they had glitches when it came to women using Siri because of the timbre of their voice. There weren’t enough women involved in the process of creating it that it was already geared towards a

male industry from the get-go,” she said. “It’s not conscious; it’s just the way it’s working. If we want to be able to be equal and meet that equality goal, if we are gearing our society for everything to be automated and have more increase of AI, (women) don’t want to be left behind.”

“The gender gap is a major issue in North America,” said Caplan. “If you look at other countries like India and Pakistan, the number of women versus men is way more equally distributed within the academy and the industry,” Caplan told the Valley Harvester. “It’s an ethical problem that women aren’t participating in recreating society as we are in computer science.”

Caplan said at the bachelor’s degree level for computer science at Acadia University, only seven per cent of the student body is female.

“That’s devastating, in my mind. If you roll back to 1982, it would have been about 40 to 45 per cent,” he said.

In fact, both men and women are missing opportunities to have a worthwhile career, he said. Careers in technology in Canada are growing up to three times faster than colleges can produce computer science graduates, with thousands of jobs in information and communications technology that are unfilled by Canadian talent because not enough people have the right skills.

“I’m super excited that computer science is officially part of the Nova Scotia curriculum in elementary through to high school,” said Caplan, who added it’s about four to five years away from being rolled out as it should be. “Creative Computing and the work we’re doing with Refresh was a response to the lack of computer science in the public school system. At this point, it’s more trying to fill that gap where it exists because not all kids are equally receiving computer science in the school system,” he said. “We want to encourage our kids to go through that door and explore it to its completeness. Computer scientists are superheroes.”