

Kids&Families

Gettin' with the program

Tech courses for kids tap into creativity and help with math

BRIAN BAKER
Features

Even if they don't know it, Donkey Kong and Super Mario are teaching kids arithmetic.

Behind every video game pixel, there's a mathematical equation just waiting to be discovered.

That's why programming courses like Children Technology Workshop's iCamp and Real Programming 4 Kids are helping to show kids just how important those equations and logistics are by putting them into context.

"The (video) game is often itself an x and y coordinate system, so the kids see that things are coming alive on an x/y plain and can show them how important math is," said Real Programming president Elliott Bay, "and physics comes alive as well."

"Collisions, intersecting circles, Pythagoras can all manifest when you program a game."

Bay used an analogy to help emphasize his point:

"It's like the difference between cooking with raw ingredients and using a frozen dinner," he said. "You learn more about cooking when you use the raw ingredients."

Children Technology Workshop president Darryl Reiter agreed.

He said critical thinking must be emphasized in order to teach kids how to use technology creatively.

"What I think is information is becoming cheapened because of our access to it," he said. "It's more important than ever to teach them how to be critical thinkers, to analyze information and then create their own independent thought from that."

All kids need is a little push.

"I think left to their own devices, a small percentage would really try and be creative with technology because it's time consuming and you need the skills to do it," he said.

Both Reiter's workshops and Bay's courses blazed a trail in the mid '90s.



FRANCIS CRESCIA/TOWN CRIER

GAME TIME: Elliott Bay, president of Real Programming 4 Kids, helps Taiwoo Kim, seated, in a programming class at Branksome Hall on July 22.

Both of them have seen dramatic changes in technology's evolution.

With Workshop originally starting out as a robotics camp in 1997, Reiter has seen the trend shift more toward the digital world when teaching 7-13-year-olds.

"Robotics, though it may sound sexy, is a bit more limited in what you can do, so with the video game design — of course everybody knows how much kids play video games these days — it has more appeal," he said.

Real Programming's teaching of computer languages like Java, Visual Basic, C++ and C# help fill a gap that Bays says is missing in Ontario's education.

In order to get video programming into the province's curriculum, Bays said he would have to dilute what they teach in class, something that's a detriment to Real Programming's philosophy.

"First of all, public schools are slow to change because we can't give credits for our courses, even though the things they get credits for may be learning the Internet and word processing, really easy stuff," he said. "We would have to change our curriculum to meet the centrally planned Ontario ministry courses and for us to do that would be suicide because we'd lose the appeal."

Outside of school, computer programming could lead kids down the

game-designing career path.

"We have people on our staff that are video game designers, multimedia production people and they can just look at these kids and tell they're the prodigal child based on the creativity of what they've created," Reiter said. "It's hard these days to come up with an original idea in video games."

Once a child has tapped into their creative mother lode, Workshop helps further the idea.

"When you get something unique and special, you try to expand on that with the kid and help them realize the value of what it is they've created," he said. "We get a lot of gratification out of doing those activities."

Even Bay has seen former students from 10 years ago head off to college and university with what they learned at Real Programming in their back pockets.

"That's a real exceptional experience because when we were starting in the early 2000s, there was no game design programs in post secondary schools," he said. "I say that if we're making kids into programmers, we're also making programmers into teachers."

Reiter agreed.

"The kids are a one-stop video game production shop and they have to do all those things, so it's really cool for the kids," he said.

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