March 27, 2012

A Surge in Learning the Language of the Internet

By JENNA WORTHAM

Parlez-vous Python? What about Rails or JavaScript? Foreign languages tend to wax and wane in popularity, but the language du jour is computer code.

The market for night classes and online instruction in programming and Web construction, as well as for iPhone apps that teach, is booming. Those jumping on board say they are preparing for a future in which the Internet is the foundation for entertainment, education and nearly everything else. Knowing how the digital pieces fit together, they say, will be crucial to ensuring that they are not left in the dark ages.

Some in this crowd foster secret hopes of becoming the next Mark Zuckerberg. But most have no plans to quit their day jobs — it is just that those jobs now require being able to customize a blog's design or care for and feed an online database.

"Inasmuch as you need to know how to read English, you need to have some understanding of the code that builds the Web," said Sarah Henry, 39, an investment manager who lives in Wayne, Pa. "It is fundamental to the way the world is organized and the way people think about things these days." Ms. Henry took several classes, including some in HTML, the basic language of the Web, and WordPress, a blogging service, through Girl Develop It, an organization based in New York that she had heard about online that offers lessons aimed at women in a number of cities. She paid around $200 and saw it as an investment in her future.

"I'm not going to sit here and say that I can crank out a site today, but I can look at basic code and understand it," Ms. Henry said. "I understand how these languages function within the Internet." Some see money to be made in the programming trend.

After two free computer science classes offered online by Stanford attracted more than 100,000 students, one of the instructors started a company called Udacity to c lessons. Treehouse, a site that promises to teach Web design, picked up financi Hoffman, the founder of LinkedIn, and other notable early investors.

General Assembly, which offers workroom space for entrepreneurs in New York, is adding seven classrooms to try to keep up with demand for programming classes, on top of the two classrooms and two seminar rooms it had already. The company recently raised money from the personal investment fund of the Amazon founder Jeff Bezos and DST Global, which backed Facebook.

The sites and services catering to the learn-to-program market number in the dozens and have names like Code Racer, Women Who Code, Rails for Zombies and CoderDojo. But at the center of the recent frenzy in this field is Codecademy, a start-up based in New York that walks site visitors through interactive lessons in various computing and Web languages, like JavaScript, and shows them how to write simple commands.

Since the service was introduced last summer, more than a million people have signed up, and it has raised nearly $3 million in venture financing.

Codecademy got a big break in January when Michael R. Bloomberg, the mayor of New York, made a public New Year's resolution to use the site to learn how to code. The site is free. Its creators hope to make money in part by connecting newly hatched programmers with recruiters and start-ups.

"People have a genuine desire to understand the world we now live in," said Zach Sims, one of the founders of Codecademy. "They don't just want to use the Web; they want to understand how it works."

The blooming interest in programming is part of a national trend of more people moving toward technical fields. According to the Computing Research Association, the number of students who enrolled in computer science degree programs rose 10 percent in 2010, the latest year for which figures are available.

Peter Harsha, director of government affairs at the association, said the figure had been steadily climbing for the last three years, after a six-year decline in the aftermath of the dot-com bust. Mr. Harsha said that interest in computer science was cyclical but that the current excitement seemed to be more than a blip and was not limited to people who wanted to be engineers.

"To be successful in the modern world, regardless of your occupation, requires a fluency in computers," he said. "It is more than knowing how to use Word or Excel but how to use a computer to solve problems."

That is what pushed Rebecca Goldman, 26, a librarian at La Salle University in Philadelphia, to sign up for some courses. She said she had found herself needing basic Web development skills

so she could build and maintain a Web site for the special collections department she oversees.

“All librarians now rely on software to do our jobs, whether or not we are programmers,” Ms. Goldman said. “Most libraries don’t have an I.T. staff to set up a server and build you a Web site, so if you want that stuff done, you have to do it yourself.”

The challenge for Codecademy and others catering to the hunger for technical knowledge is making sure people actually learn something, rather than dabble in a few basic lessons or walk away in frustration.

“We know that we’re not going to turn the 99 percent of people interested in learning to code into the 1 percent who are really good at it,” said Mr. Sims of Codecademy. “There’s a big difference between being code-literate and being a good programmer.”

Some who have set their sights on learning to program have found it to be a steep climb. Andrew Hyde, 27, who lives in Boulder, Colo., has worked at start-ups and is now writing a travel book. He said he leaped at the chance to take free coding classes online.

“If you’re working around start-ups and watching programmers work, you’re always a little bit jealous of their abilities,” he said. But despite his enthusiasm, he struggled to translate the simple commands he picked up through Codecademy into real-world development. “It feels like we’re going to be taught how to write the great American novel, but we’re starting out by learning what a noun is,” he said.

Mr. Sims said he was aware of such criticisms and that the company was working to improve the utility of its lessons.

Seasoned programmers say learning how to adjust the layout of a Web page is one thing, but picking up the skills required to develop a sophisticated online service or mobile application is an entirely different challenge. That is the kind of technical education that cannot be acquired by casual use for a few hours at night and on the weekends, they say.

“I don’t think most people learn anything valuable,” said Julie Meloni, who lives in Charlottesville, Va., and has written guides to programming. At best, she said, people will learn “how to parrot back lines of code,” when they really need “knowledge in context to be able to implement commands.”

Even so, Ms. Meloni, who has been teaching in the field for over a decade, said she found the groundswell of interest in programming, long considered too specialized and uncool, to be an encouraging sign.

"I'm thrilled that people are willing to learn code," she said. "There is value here. This is just the first step."

This article has been revised to reflect the following correction:

Correction: March 27, 2012

An online summary for this article misspelled the name of the company started by Zach Sims and Ryan Bubinski. It is Codecademy, not Codeacademy. An earlier version also misstated the employer of Rebecca Goldman as Drexel University.