Establishing the U.S. Postal Service as 3-D printing hubs could streamline the fast delivery of printed goods and boost package revenue up to 20% per year.

UPDATES

RIT SIGCHI

Democratizing digitization, campus outreach, and more.

Philo Farnsworth invented the television in 1928, but it took more than 20 years for commercial TV to take off. In 1946, only 6,000 U.S. households had a set, within five years 12 million did. Decades later, in 1983, Chuck Hall brought us stereolithography, more commonly known as 3-D printing. It took even longer for this technology to go mainstream. Although 3-D printing has become a ubiquitous term, and one can buy a printer at Home Depot or Staples, arguably it is as likely to be used to make a novelty plastic toy as well as a life-saving medical device.

The two different technologies, with different objectives and invented in different eras, are nevertheless uniquely similar: When invented, each was ungainly, slow, expensive, hard to use, and for many years, not particularly useful or practical. Dr Dan Ashbrook, director of the Rochester Institute of Technology's (RIT) Future Everyday Technology Research Lab (FETlab), wants to change that paradigm by using, ironically, 3-D printing.

At a talk hosted by the school's ACM student chapter in November, Ashbrook claimed the goal and promise of "democratizing digital fabrication" was to expedite the process of moving an invention from the impractical to the practical. To further that goal, the RIT chapter will play a major role—nearly half of his FETlab research assistants are student members.

Established in November 2013 with faculty advisor Deborah Gears and a handful of students, the RIT special interest group for computer-human interaction—RIT SIGCHI—is the official ACM student chapter at RIT. Situated 330 miles northwest of New York City, near Lake Ontario and the Canadian border, it has grown to 45 members in its three-year existence.

Sponsoring talks and hosting informational social gatherings comprised the bulk of the chapter's outreach efforts in 2015. At its fall semester kickoff event, the group held a pizza-fueled social gathering to discuss recent trends in HCI, as well as view a number of videos on the topic. "In the life of the graduate student, which is normally focused on balancing studies with life, simply providing a social outlet around these topics means a lot in terms of building a community around HCI," said Jeremiah Parry-Hill, who holds the dual role of treasurer and secretary for the chapter. The chapter held a similar event last April, which featured HCI-centric films and videos. Also that same month, the group hosted Matt Huenerfauth who gave a talk on methods for evaluating the effectiveness of technologies for conveying American Sign Language.

Social media is another important aspect of the RIT SIGCHI community. The chapter uses its Facebook page to keep members and other interested parties informed of upcoming professional opportunities, free or low-cost research material, and other announcements. In addition, for those unable to attend chapter-hosted presentations, SIGCHI established a YouTube channel[1] to view both Ashbrook and Huenerfauth's talks.

The chapter aims to expand its reach to those beyond its current membership. A robust crowd of 20 attended Ashbrook's talk. About half were RIT SIGCHI, while the rest were faculty members and other interested parties. "We have a 'big-tent' philosophy," Parry-Hill explained, "where we want to get our message to anyone interested in human-computer interaction—first to members, then the school, then to local universities, and ultimately to the western New York region. That will take time."

"Part of it is logistics issues," added Amanda Yung, the organization's communications chair. "We've had

RIT SIGCHI At a Glance

School:
Rochester Institute of Technology

Chapter Name: RIT SIGCHI

Location: Rochester, NY [USA]

Website:
https://www.facebook.com/RITHCI

Date Established: November 5, 2013

Officers:

Sabarinathan Masilamani
Chair

Jeremiah Parry-Hill
Treasurer/Secretary

Amanda Yung
Communications

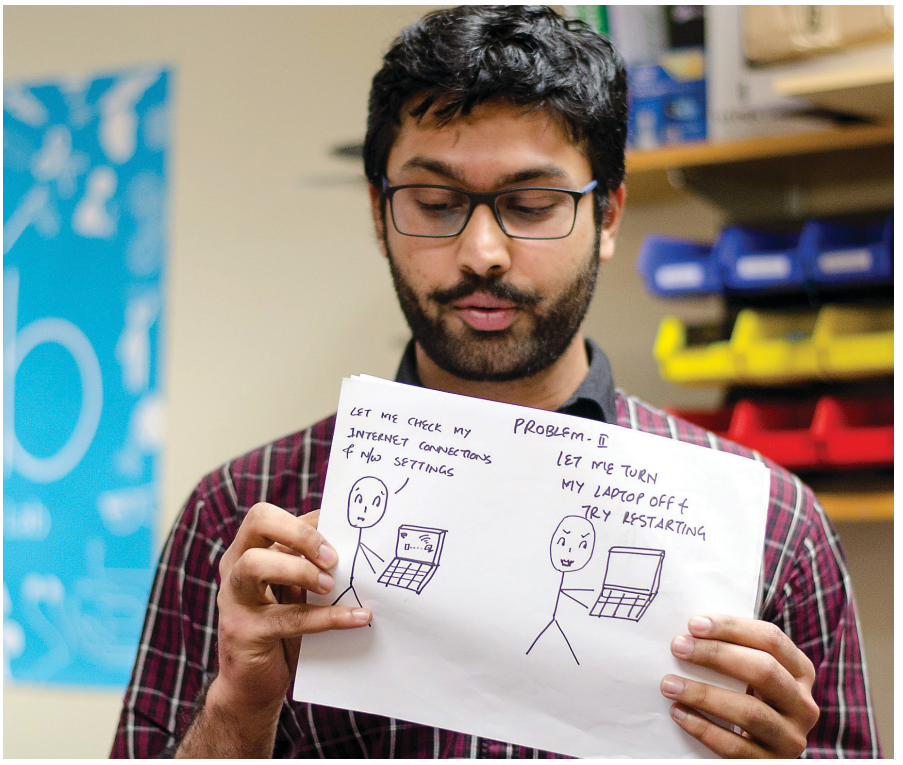
Ajantha Vijayasekharan
Membership and Events

Current Total Membership: 45

Contact: rit.sigchi@gmail.com

1 https://www.youtube.com/channel/UCsBOsq_pRqxl2hVGwmeYWvA

$3 The amount you need to fabricate a functional 3-D printed gun.



Tirumalavan "Balaji" Iyengar, a member of RIT SIGCHI, presents a storyboard to his classmates. He and his team built a physical Internet-quality metering device that drips water to reflect the speed of the upstream and downstream Internet connection, as well as display an LED bargraph of the same information.

Photograph by Julia Prisaznuk. © RIT Golisano College of Computing and Information Sciences.

some events at other universities locally, for example, in 2013. But getting people to and from one campus to another for a one hour presentation can be a barrier. Videoconferencing, more for logistical reasons, hasn't been a viable option." The chapter intends to explore options for increasing its range in the coming months.

The RIT SIGCHI chapter also expects to continue its work supporting the democratization of digital fabrication in the school's FETlab. "The chapter will have a hands-on workshop with Professor Ashbrook in the spring semester," said Parry-Hill.

Back in November, Ashbrook opened his presentation quoting techno/science-fiction author William Gibson, "The future is already here, it's just not very evenly distributed." With the help of RIT SIGCHI, students are learning, and working, to change that.

—David Byrd