Using 3D Printing to Construct Itsy the Spider

By Juan Carlos Santiaguel, Media Services Federal Work Study Program (edited by Linda Barber)

When I started working for the Library, I had no prior knowledge of 3D printing. However, with the help of the Library staff and especially, Felix Peralta, I managed to learn how to do 3D printing in no time at all. Even though I am a history major, my 3D printing experience brought out my deep love for all things tech.

I decided to create something with my newly acquired knowledge of 3D printing and prior knowledge of robotics from my high school. Stumbling upon a design on Thingiverse, a website dedicated to sharing user-created design files, I constructed a quadruped robot spider, which I appropriately named “Itsy”. “Itsy” is now on display in the library’s 3D printing lab.

While the lab is currently available by appointment only, the Library hopes that, in the near future, the lab can become a public space which the entire College community can enjoy. I hope that my creation and the tools readily provided by the Library can help inspire students who are just looking for fun, or more importantly, are interested in pursuing careers in this emerging technology.

In the Spring 2019 semester, with support from Student Affairs, the Library continued the workshop series with Computer Science and Engineering First Year Seminar students, allowing them to learn about 3D printing as a co-curricular activity. For Fall 2019, we will work with Adult and Continuing Education’s (ACE) Pre-College Academic Programming to provide 3D printing workshops as a way to promote interest in STEM fields.

The images on Page 7 highlight the construction of Itsy the Spider.

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**Faculty and Staff Highlights**

- **Professor Derek Stadler's** book chapter “Overcoming the Google handicap: How to incorporate information literacy skills on a junior college library website” was published in the *Handbook of Research on Emerging Trends and Technologies in Library and Information Science* (IGI Global, 2019, p. 43-66)

- **Professor Derek Stadler** co-led the panel discussion, “Happy Librarians Talk Management & Morale” with SUNY Farmingdale’s Danielle S. Apfelbaum at the New York Library Association conference in Saratoga Spring, NY on November 15, 2019.

*The Library’s annual book sale was held on September 23 and 24, 2019.*
MoneyBoss: Where Students Continue to be the Boss of Their Money

By M. Anne O'Reilly, Electronic Resources Librarian

The MoneyBoss Personal Finance and Entrepreneurship workshops began with a grant from Santander Bank in the Spring semester 2017. Led by Prof. Elizabeth Jardine from the Library, guest presenters from the bank, Antonio Olivero from Student Financial Services, and Professors Santo Trapani and Hector Fernandez from the Business & Technology department facilitated the initial workshops. These six workshops covered “Building Credit,” “Entrepreneurship,” and “Budgeting & Saving,” each presented twice.

When the grant ended and was not renewed, the Library continued these financial literacy workshops. A new team formed with myself, Prof. Jardine, and Phillip Torres from the Library; Professors Jennifer Arroyo and Javier Serna from the Business & Technology Department, and Prof. Neetu Kaushik from Social Science.

About to enter its third year, the MoneyBoss workshops have had over 1,000 student attendees from majors across the College. These workshops cover the same topics as the original launch - as well as holding the free book raffle. We have expanded the palette to include guest presenters covering their areas of expertise. Evelyn Carrasco from the Small Business Development Center is a regular with workshops on “How to Start Your Own Business.” Prof. Hugo Fernandez has spoken about “What I Wish I Knew about Student Loans.” Prof. Ahmed Abdelhalim covered “Tax Reform - New Tax Law Changes.” We have also added sessions on “Identity Theft,” “Emotions & Finance,” and “Getting Control of Your Credit.” Prof. Jardine and I have given multiple presentations to the Intern & Earn and the Student Youth Employment programs, in addition to leading a workshop for Prof. Lee Boyar’s BTA class.

With every workshop we follow a well-executed marketing plan. Full-sheet flyers are posted in the Library’s marketing space, given to Student Affairs to post on campus bulletin boards, (Continued on page 6)
3D Printing in the Library: Fall 2019 Update

By Ann Matsuuchi, Instructional Technology/Systems Librarian

Project background

In 2014, LaGuardia Community College Library became one of the first CUNY libraries to start experimenting with 3D printers. With limited grant assistance, we now have three consumer-end 3D printers: a Lulzbot Taz 6, Makerbot Replicator 2, and Replicator+. Unfortunately, the Library is still in need of properly ventilated and accessible space, as well as a full-time trained staff operator, in order to offer effective services to students and faculty. For now, the printers can be operated only in staff office spaces, with individual students working on specific faculty-designated projects and with advance notice.

In Spring 2019, Professors Galina Letnikova (Library) and Ian Alberts (Natural Sciences) successfully applied for co-curricular funding from LaGuardia Community College’s Student Affairs. As part of the project entitled “Purpose-Driven 3D Printing to Enhance STEM Identity,” a workshop series was started and further developed in its second season, this past Fall semester.

Fall 2019 Library 3D printing Instructional workshop series continues

In Fall 2019, Prof. Alberts contacted the Library to continue this workshop series with students in the Computer Sciences and Engineering First Year Seminar (CSF101), allowing them to learn about 3D printing as a co-curricular activity. We also worked with Pre-College Academic Programming that is part of Adult and Continuing Education (ACE) to provide 3D printing workshops as a way to promote interest in STEM fields. In this iteration of our library instructional program, we included a hands-on component to the workshop agenda, a detailed step-by-step draft of which will be shared via the institutional repository CUNY Academic Works.

Following a short video introduction to 3D printing, the hands-on portion asked students to edit or create a 3D model of a keychain using the web-based modeling software Tinkercad. We walked the students through the online tutorials in order to give them familiarity with the interface. Working in small groups, each team was to submit a modified or original 3D model file for their group’s jointly created keychain. Seven two-hour FYS workshops and one ACE workshop were conducted by Professors Ann Matsuuchi and Thomas Cleary in the Library, with assistance from the Library Media Services 3D printing specialists, Felix Peralta and Juan Carlos Santiaguel. These eight workshop sessions were attended by 20-25 students each.

This project continued collaboration with the STEM Initiatives program, Elanie Lendebol, that is part of Academic Affairs. Students were introduced to digital badging at the conclusion of each of the 3D printing workshops by a Student Technology Mentor. After completion of the assigned tasks, the students received STEM Experiential Learning Digital Badges from Credly (https://info.credly.com/about-us). These digital badges are recognized nationwide, allowing students to add marketable skills to their resumes and ePortfolios. The written reflections that the students provided at the end of their course revealed how much they enjoyed and benefited from this reward of Library technological instruction.

Follow-up with students

We received approximately 60 different keychain files from the student groups in these FYS sessions, but only about one-third of the submissions could be printed successfully. Felix Peralta took note of the problems with the files that the students sent, and, with screenshots, we were able to let the students know what the issues were that prevented completion of the print-jobs. This allowed them to understand what they needed to pay attention to, when working with 3D models. The main issue was due to students not examining the file by changing the perspective - considering that the model is a 3D object - in order to check if the elements are all connected and not blocked by anything extraneous. We gave them the opportunity to do some independent troubleshooting, and invited them to stop by for further in-person instruction, if they wanted to correct their files.
Future plans
We hope to continue interdepartmental work towards developing ways to use 3D printing and related technologies in instructional contexts not limited to engineering. Conversations with programs such as Industrial Design and biology continue to prompt new ideas that we would like to pursue in the near future, such as offering introductory 3D printing workshops for faculty and staff, and building an environmental or biological model design library.

More resources
To see what other colleges and faculty are doing with 3D printers, check out our LibGuide: https://guides.laguardia.edu/3dprinting

Talk to us!
If you would like to find out more about using a 3D printer with your students, please contact Thomas Cleary (tcleary@lagcc.cuny.edu) or Ann Matsuuchi (amatsuuchi@lagcc.cuny.edu). With our current setup, we would probably be limited to using a 3D printer during only one or two class sessions. We could wheel the printer on a cart to your classroom in the E Building. Otherwise, we can try to reserve use of the Library lab or conference room for your class to see a 3D printer in the Library.

History Corner: What’s in a Number?...HUnterspoint 2-5425
By Derek Stadler, Web Services Librarian

For most Millennials, a phone has always been a handheld device that is not only a communication tool but also a gateway to the Internet. A phone number is an area code, followed by a seven-digit number. In New York City, you can have a 917, 718, 212, or a 646 area code, to name a few. For Generation-Xers and Baby Boomers growing up in New York City, a phone was something used at home or at a phone booth that was located either indoors or outdoors. In New York City, there was only one area code...212. That would change in 1985 when Queens, Brooklyn, and Staten Island were designated as 718, and Manhattan and the Bronx kept the 212 area code. This was a big deal at the time, with The New York Times claiming that there were “threats of secession and revenge” by the three boroughs who received the 718 number (Fein. 1984, p. 1).

Now getting back to that seven-digit number: At first, telephone numbers were only four digits. After direct dialing was introduced in the 1920s, and more phone numbers were added, a local exchange preceded the four numbers. The exchange was a proper name. In the case of our Library Reference Desk number, it was “HUnterspoint 2-5425, with the two capitalized letters indicating the numeric substitution for “48.” Sometimes, only the first two letters of the name were used, for example “HU2-5425.” AT&T began phasing out the exchange names in favor of three numbers in the 1950s. So, today we have 482-5425 (Kte’pi, 2014, p. 1329).

References
This fall saw our first foray into the conference format. On Oct. 30, we held our first MoneyBoss Mini-Conference - a series of micro-presentations over the course of three hours. Prof. Andrea Francis discussed credit, Evelyn Carrasco and Prof. Hector Fernandez presented entrepreneurship, Matthew Joffe from the Wellness Center spoke about emotions and finance, and Prof. Santo Trapani introduced investing. Not only did each presenter speak, but they were available at their own table with handouts on their topic. Over 150 students attended and we plan to also make this conference an annual event.

It is evident from our growing attendance that the MoneyBoss workshops are a welcome enhancement of our students’ financial literacy - in addition to counting toward their co-curricular requirement - where applicable. Prof. Jardine still adds to the MoneyBoss LibGuide she created at the inception of the program. Our free book raffles are a hit with each presentation. We’re all proud of the success of MoneyBoss and we continue to advocate the goal of helping students become the boss of their money!

Archival Insights: Developing Collections

By Thomas Cleary, Archivist

The Institutional Archives at LaGuardia Community College grows every year. We have been slowly getting more student work represented in the collections, including exhibits put out by the Commercial Photography program, shows from WLGR Web Radio, and laying the groundwork to receive and make available Theatre Program productions. Along with collecting newer materials, we have been developing the existing collections, digitizing selected materials and making them available online on our website https://archives.laguardia.edu.

When looking at existing collections, we came across some very interesting hidden gems, such as a series of oral history interviews done for the College’s 25th anniversary in 1996. Previously, these videos were just a set of DVDs and VHS tapes sitting on a shelf, but now they are publicly accessible and have already been used by researchers. The process was not as simple as it seems. The majority of the DVDs were unreadable for different technical reasons, but, working with Felix Peralta in Media Services, we were able to recover the original videos from the VHS. The videos feature interviews with several faculty, staff, and students including Terry Parker (Library), President Raymond Bowen, Dr. Janet Lieberman (Middle College High School), Umoja Kwaguva (Student Activities), and Dorrie Williams (Cooperative Education). All are available on the Institutional Archives website.
The construction of Itsy the Spider.