3D Printing in the Library

By Ann Matsuuchi, Instructional Technology/Systems Librarian

In 2014, the Library acquired its first 3D printer, a Makerbot Replicator 2. Over the years, with grant assistance, we have added a Lulzbot Taz 6 and a Makerbot Replicator+. Until the Library is given the space for an accessible printer lab (a “MakerSpace”), the printers can be operated only in staff office spaces, with individual students working on specific faculty-designated projects.

Fall 2018 / Spring 2019 3D Printing Workshop Series

Starting in Fall 2018, Professor Galina Letnikova (Library) developed a 3D printing workshop with Professor Ian Alberts (Natural Sciences). The first workshop was conducted in the Library classroom on 14 November 2018. With 30 students in attendance, it was a standing-room-only event. Planning this series of workshops then continued with the College’s STEM Initiatives program (Cristina Di Meo and Elainie Lendebol), who provided students with an introduction to digital badging. During the hands-on part of the event, students searched for and downloaded 3D printable objects that were in some way related to their studies, usually small items related to engineering. Ten of the students then came to the Library to 3D print objects that they had found. After completing these tasks, the students received STEM Experiential Learning Digital Badge 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 had enjoyed and benefited from this new avenue of Library technological instruction.

In the Spring 2019 semester, with support from Student Affairs, the Library continued the workshop series with Computer Sciences 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 the Adult and Continuing Education’s (ACE) Pre-College Academic Programming to provide 3D printing workshops as a way to promote interest in STEM fields.

(Continued on page 4)

What we have learned so far --

A student project that involved a ratchet mechanism

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**Faculty and Staff Highlights**

- **Professor Steve Ovadia’s** “Addressing the Technical Challenges of Open Educational Resources” was published in *Libraries and the Academy* in January 2019.

- **Professor Galina Letnikova** retired from LaGuardia Community College after spending five years as Coordinator of Library Instruction.

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Professor Letnikova is seen here cutting the cake at her farewell party.

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**Library Notes**
Spring 2019
Volume 30 Issue 2

Editors
Thomas Cleary
Derek Stadler

This newsletter is published once each semester by LaGuardia Community College’s Library Media Resources Center. Opinions expressed do not necessarily represent those of the Library Media Resources Center or of LaGuardia Community College.

Comments may be sent by email to: tcleary@lagcc.cuny.edu or dstadler@lagcc.cuny.edu.

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LIBRARY NOTES
Sue Livingston Speaks with Library Notes about Academic Works

By Liz Jardine, Metadata Librarian

For this article, I conducted an email interview with Professor Sue Livingston of the Education & Language Acquisition Department. We worked together to get eleven of her mostly pre-digital publications into CUNY Academic Works (academicworks.cuny.edu) the university’s institutional repository. I coordinate LaGuardia’s section in Academic Works, along with my Library colleague Professor Ann Matsuuchi. I’ll let Sue tell you about herself…

Liz: Please give our readers some background about your time at LaGuardia and your areas of research and scholarship?

Sue: When people ask me how many years I’ve been at LaGuardia, I use my daughter’s age as a guide. I started here when she was 11 months; she is now 35 . . . so . . . wow . . . 34 years. I was hired specifically to serve LaGuardia’s deaf student population in basic reading and writing courses and have since taught special sections of those courses and, when in need, special sections of Freshman Composition.

Working in the public school for deaf children (P.S. 47) prior to coming to LaGuardia, I was always fascinated by how my students, all deaf children born to hearing parents who did not know sign language, acquired sign language just by being exposed to it at school. So, the research for my dissertation was a longitudinal study of the acquisition of sign language in such students. From there, the questions just started coming to me: How do these students acquire word meanings? Are there better ways of educating them than by requiring them just to lip read? How do you read aloud to deaf students? How do you teach them to read? To write? Is using a sign system better than using a sign language to communicate with them? How does one approach the teaching of English grammar? There are still so many more questions that need to be researched and that is precisely what makes my work with deaf students today so engaging for me.

Liz: Where did you first learn about the CUNY Academic Works institutional repository and become interested in having a review of your publications done to see which ones were eligible to be submitted to Academic Works?

Sue: I first found out about the CUNY Academic Works institutional repository at a library workshop where I heard words and abbreviations I never heard before: Sherpa, Romeo, ORCID. The carrot for me was hearing that faculty would be assisted in the process of contacting publishers and obtaining permission rights to upload articles to Works. I don’t think I would have pursued this project if I didn’t hear those assurances.

[Sue: Interview commentary in bracketed italics is mine. Currently, most journals specify in contracts if authors have permission to upload their work online to an institutional repository or other site and what version they can upload. Contacting publishers is rarely necessary. But Sue’s articles were different…]

Liz: What challenges--and opportunities--did your publications present to us as we worked on this?

Sue: No doubt about it, the primary challenges were working with articles published in the pre-digital era and investigating publication contracts for answers to questions about who holds the copyright [and what permissions Sue had to put her scholarship online in Academic Works]. But Liz conquered these challenges with the utmost competence and with seemingly great ease. As for opportunities, I finally had all my research gathered in one file as opposed to spread out all over home and office in different folders in different file cabinets. I guess the gathering of the work was also a bit of a challenge, but the yeoman’s share of work for this project was certainly Liz’s as she was the project’s producer.

[Liz: Sue’s publications were my first experience handling pre-digital works and contacting publishers for permission to post works in the repository. I had invaluable support from Megan Wacha, CUNY’s Scholarly Communications Librarian, with the questions about copyright and acquiring permissions.

(Continued on page 6)
The two main challenges to this initiative have been the need for dedicated staff time and physical space requirements. If a properly ventilated lab space cannot be established, the Library will be limited in the services that it can offer, as well as in what kind of materials we can use for printing. And the key issue that needs to be worked on is the labor requirements. This work requires dedicated staff with extensive operational knowledge and experience with maintenance and repair. These skills can be learned, but this learning requires a great deal of time, especially given the number of hours that a single print job can take.

Planning for a Future MakerSpace --

Providing the means of exploring new educational technologies in the classroom is an important part of the Library’s mission. 3D printers are a major component of what are known as Makerspaces - locations designed to provide a hands-on learning conduit. 3D printers produce physical models for hands-on active learning. Complex models can be created at a minimized cost, and existing model templates can be customized easily (for example, there are thousands of protein model files that can be downloaded). Usage is not limited to engineering and product design contexts.

For future timeline objects, see strategic plan report section on 3D printing....

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’d 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 set-up, we may be limited to using a 3D printer during one or two class sessions. If your classroom is in the E-Building, we can wheel the printer on a cart to your. Otherwise, we can reserve use of the Library lab or conference room for your class to see a 3D printer in the Library. ■
The History Corner: Our Neighboring Communities of Astoria, Blissville, and Laurel Hill

By Derek Stadler, Web Services Librarian

Long Island City, home to LaGuardia Community College, is surrounded by communities with interesting histories. Our neighbor to the north is Astoria. Astoria was named after the prominent fur merchant, John Jacob Astor, in hopes that he would finance a new Episcopal Female Seminary. In the end, Astor contributed only $500 to the effort. The Village of Astoria was incorporated on 1839 and became part of the consolidated municipality of Long Island City in 1870 (Seyfried, 1984, p. 19).

Astoria is world-known for Steinway pianos. In 1850, Henry Englehardt Steinway came to New York from Germany. He opened the first Steinway piano factory in March of 1853. Within five years, the company had expanded and sought a new location for the factory. The Steinways selected a part of northeastern Astoria called Luyster’s Island, currently the area from Thirty-Sixth through Forty-Ninth Streets, north of Twentieth Avenue. A four-story piano case factory was completed by the summer of 1879. Prior to the construction of the factory, the family created a village known as Steinway (Seyfried, 1984, pp. 69-73).

The areas to the south of LaGuardia Community College along Newtown Creek from west to east are Blissville and Laurel Hill. In 1836, the Penny Bridge was constructed in this area to connect with Meeker Avenue. A ferry to Manhattan was established in 1853 at about the same location. In the 1850s, the Penny Bridge was replaced by the Blissville Drawbridge, the first drawbridge to cross the Creek. However, locals continued to refer to the structure as the Penny Bridge (Seyfried, 1984, pp. 83-85).

The Flushing Railroad Company was the first railroad to provide service to Blissville and Laurel Hill, beginning in 1854. The line ran east from Hunter’s Point along Newtown Creek to the Penny Bridge and then northeast to Flushing (Hazelton, 1925, p. 394). Penny Bridge Station was located at the bridge of the same name. The Company went bankrupt in April of 1859. Future LIRR president Oliver Charlick bought the right-of-way and operated it as the New York & Flushing Railroad. However, Penny Bridge Station was abandoned on November 14, 1869 (Seyfried, 1984, pp. 85, 145). It reopened as a station stop on the South Side Railroad in 1872, but was shut down again in 1881 (Hazelton, 1925, p. 399). It reopened again in 1883 serving the Long Island Railroad’s Manhattan Beach Branch. After the Manhattan Beach Branch closed, Penny Bridge became a station stop on the Montauk Branch and remained a stop until 1998. On March 13 of that year,
**Sue Livingstone Interview (Continued from page 3)**

**Liz:** What benefits do you see from having much of your work available freely online in the repository?

**Sue:** I get almost weekly requests for access to my work now. What good would the work do sitting in those dusty, old files? Whom would it benefit? I am so thrilled to know that my work can be of use to fellow researchers so that findings . . . the torch, if you will, can be passed on to produce new research or to corroborate my findings. What is totally mind-blowing to me is that I can see where my research is being read. **Academic Works** keeps track of downloads, so I can see that my work has reached fellow researchers in countries as far away as Botswana, Indonesia and Japan. It sends chills down my spine to think that deaf students in these countries might be benefitting from my work. And anyone can get access to **Works** without even registering. If they just type in my name or the name of any of my work, they will be brought right to it. Easy.

**Liz:** What would you tell a colleague who asks you about your experience with submitting to **Academic Works**?

**Sue:** I have to say that this project was both an engaging and extremely satisfying endeavor. It required just a few months, and Liz had my back from the beginning right up until the very end where we put our heads together to figure out possible discipline areas in **Works** to list my work where it would be searchable for a wider audience of interested folks.

**Liz:** Is there anything else you’d like to add?

**Sue:** So, here is the takeaway: start gathering your work . . . in either digital or hard copy formats . . . and let Liz [or my fellow Academic Works Coordinator, Ann Matsuuchi] at it. Our global colleagues will be the direct beneficiaries.

* * *

Many thanks to Professor Livingston for this interview. Faculty interested in submitting their scholarship for inclusion in **Academic Works** can consult our guide ([http://tinyurl.com/y3rt5ajc](http://tinyurl.com/y3rt5ajc)) to find out about what kinds of scholarship are accepted and how to determine what permissions authors have to upload their work. ■

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**New Addition to the Library: Arlene Rivera**

By Arlene Rivera

Arlene Rivera is a recent addition to the Library team, serving as a CUNY Office Assistant at the Circulation Desk. She joined the Library this past May after 13 years of working at LaGuardia’s Student Information Center. She has extensive experience servicing our students through her previous telecounselor responsibilities. As her role within the department grew, she ultimately developed a passion for administrative support duties. She is proud mother of her twelve-year-old boy; his name is Damien. Her son is a black belt in Shoto-kan karate. His passion for karate has motivated her and Arlene has recently decided to become his karate coach. ■
the final trains stopped and the station service discontinued (Hazelton, 1925, pp. 202, 265).

By the early twentieth century, the Penny Bridge needed a higher clearance to handle shipping needs. In order to construct traffic arteries from the proposed Triborough Bridge to a Long Island City-Manhattan tunnel, new highways in Queens were in order. One suggested route followed the New York Connecting Railroad from Astoria to a cross-Brooklyn highway bridge at Newtown Creek, replacing the Penny Bridge. The bridge opened in 1939 and was named the Kosciusko Bridge in honor of Thaddeus Kosciusko, a Polish patriot who fought in the American Revolution. The bridge was replaced by a new structure in 2017 (Newman & McGeehan).

References
Archival Insights—Topic Modeling

By Thomas Cleary, Archivist/Librarian

Getting familiar with archival collections is always a challenge. The stacks of boxes filled with documents and series of newspapers covering who knows what are pretty normal. Even finding aids that outline collections and describe what they hold often do not have the detail of what topics each item covers.

For large collections of text documents, especially newspapers or newsletters, it might be possible to skim through it all and find the different topics and themes that relate to those documents. While it is fairly unrealistic to do the same with physical text documents, a few tools are available that can do the reading of digital documents for you. Topic modeling is one of those tools that is a great help for examining your documents.

Topic modeling uses natural language processing algorithms to look at your documents and pull out different topics or themes that occur in a document or across a collection of documents. It then tags each document with these subjects and assigns a score on how related the topic is to the document. Besides giving insight into what topics the materials relate to, these tags can help in describing the materials, using them as suggestions for subject headings, and for suggesting related materials to researchers.

Having done topic modeling on different types of materials before, I have found it to be very useful and a good way to look at collections from a different perspective. Topic modeling handles straight-forward documents like books and articles very well, but struggles with materials such as newspapers that cover many different types of subjects. However, there is still a lot you can get out of topic modeling newspapers. I processed the College’s newspaper, The Bridge and was surprised to see that the program did pull out a large number of relevant topics in the text. For example, it found one the College’s Presidents, most of the area’s sports, and different current events such the Gulf War and Iraq War, as well as recognizing issues involving race that were often covered in the publication. The results were surprising since the text was not broken into individual articles, but left in as whole issues, which can give less accurate results.

Try it yourself

If you are interested in trying out topic modeling, look into the tools Voyant (https://voyant-tools.org/) and Mallet (http://mallet.cs.umass.edu/), both free programs. Voyant is very easy to use, with the option to cut and paste text in and have it analyzed, while Mallet is best for looking at multiple documents as a set. To use either tool, there are many how-tos and tutorials that describe the process and show you how to work with topic modeling.