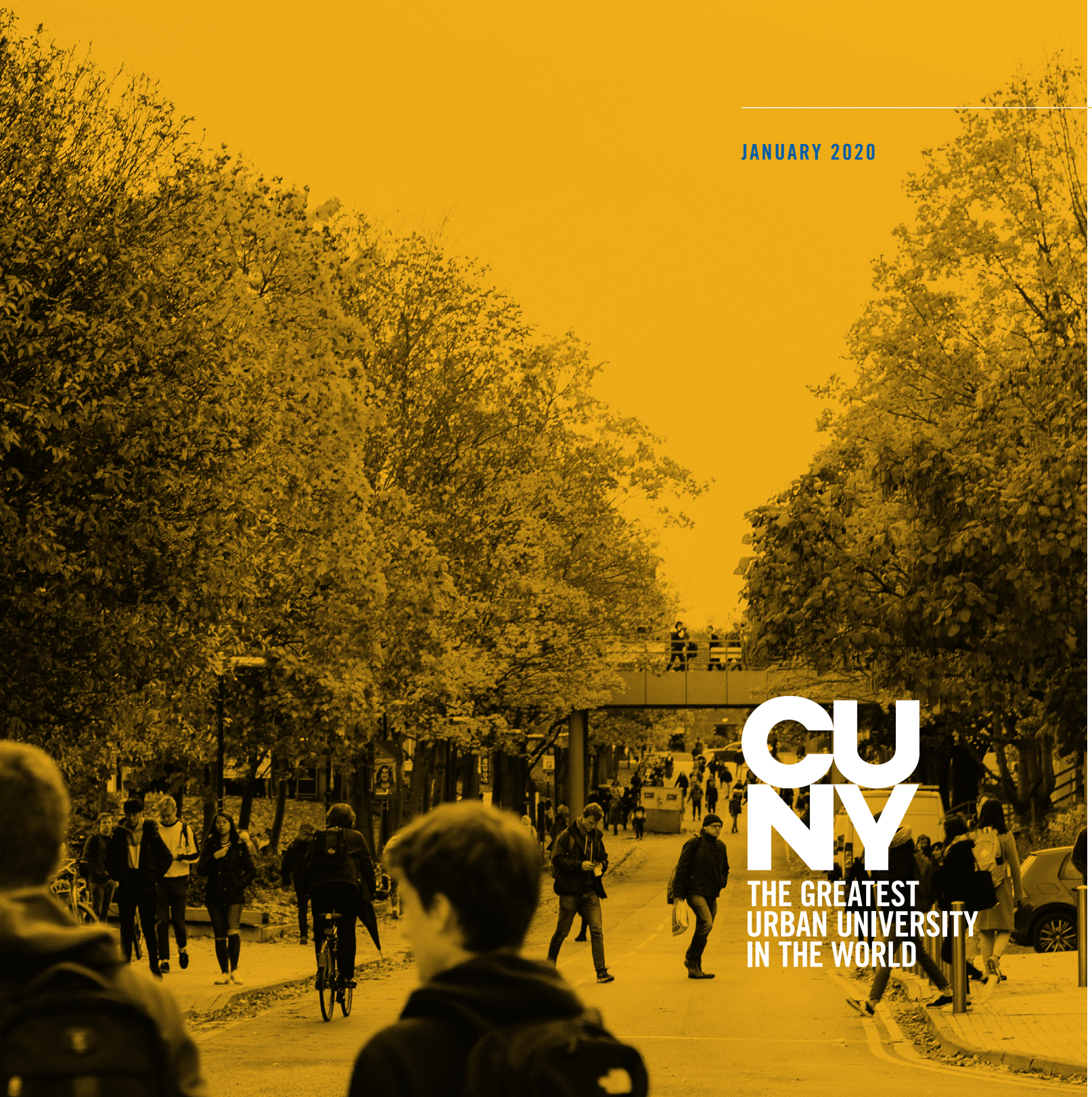
NEW YORK STATE OPEN EDUCATIONAL RESOURCES FUNDS

CUNY YEAR TWO REPORT

JANUARY 2020



CUNY

THE GREATEST URBAN UNIVERSITY IN THE WORLD

TABLE OF CONTENTS

INTRODUCTION

As the largest urban university system in the country, the City University of New York (CUNY) has long valued its mission to provide quality, accessible education to students, regardless of their means or background. Throughout its history, the University has embarked on initiatives to further increase the accessibility and affordability of its programs and offer new means for students to reach their academic and career goals.

In April 2017, a New York State budget agreement included $8 million to scale and sustain the adoption of open educational resources (OER) across the CUNY and State University of New York (SUNY) systems. Each system was awarded $4 million to establish, sustain and enhance new and ongoing OER initiatives as part of an effort to decrease the cost of textbooks for students. With a tuition of $4,800 per year for in-state CUNY community college students in Fall 2019 and a national average estimated cost of $1,440 for books and supplies for public two-year in-district commuter students in AY 2018-19[1], textbook costs increase the cost of college attendance for CUNY students by an additional 30 percent.

Prior to the award of $4 million to CUNY in the FY 2018 State budget (and again in the FY 2019 and FY 2020 budgets), there were pockets of OER adoption in individual course sections and at individual institutions. However, OER adoption was for the most part sporadic and uncoordinated across the University. In 2016, Achieving the Dream (ATD) launched the Open Educational Resources Degree Initiative and awarded CUNY with a grant to create degree pathways at the Borough of Manhattan Community College, Bronx Community College, and Hostos Community College; the State funds helped to leverage this grant and propel systemwide OER adoption, with an eye towards scalability, sustainability, and student success.

This report on the Year Two state funds focuses on how the systemwide OER initiative has evolved at CUNY; how institutional initiatives have matured from grassroots efforts at the faculty level to more strategic investments to create institutional infrastructure to advance and sustain the work; and how the University is procuring and developing shared resources for its institutions. The final section of the report provides a preview of Year Three, exploring the goals and objectives of the institutions and the University in continuing to scale and sustain its OER initiatives.

"

This has been a great opportunity to foster really dynamic creativity for faculty and students. Given concerns about digital literacy and fake news, this grant has been a natural segue to talk about these topics in a way that's very exciting."

Allison Lehr-Samuels, Director, Baruch Center for Teaching and Learning

[1] Average Estimated Undergraduate Budgets, 2018-19, Trends in Higher Education, https://trends.collegeboard.org/college-pricing/figures-tables/average-estimated-undergraduate-budgets-2018-19. Accessed on July 16, 2019.

WHAT THE DATA SAY: STUDENTS IMPACTED, COST SAVINGS, AND STUDENT PERSPECTIVES

To understand the impact of OER on faculty, students, institutions, and across the University, data about the Zero Textbook Cost (ZTC) sections, student enrollment, textbook cost savings, and authored OER content are being collected centrally by the University for further future analysis. Additionally, data collection is under way at many of the individual institutions, allowing for a more extensive analysis into the impact of OER on the student experience, faculty experience and student outcomes.

ZTC DATA ON GROWTH AND IMPACT

As of Fall 2019, the growth of CUNY's OER programs, ZTC courses, and enrollments has skyrocketed as illustrated by the numbers.

- **23,661 sections** across CUNY have converted from expensive proprietary materials to open educational resources
- IMPACTING
  469,000 students have enrolled in courses with zero textbook cost
- STUDENTS SAVED
  $46.9 million from Fall 2017 - Fall 2019
- RESULTING IN
  $5.86 in savings for every $1 of NYS Funding

The University continues to see faculty developing and sharing their teaching materials. The amount of OER published in CUNY Academic Works continues to grow each year, with 544 total OERs currently published and available for adoption. Since 2015, there have been nearly 194,000 downloads of these resources from all 50 states and 194 countries.

OER Published on CUNY Academic Works from 2015-2019

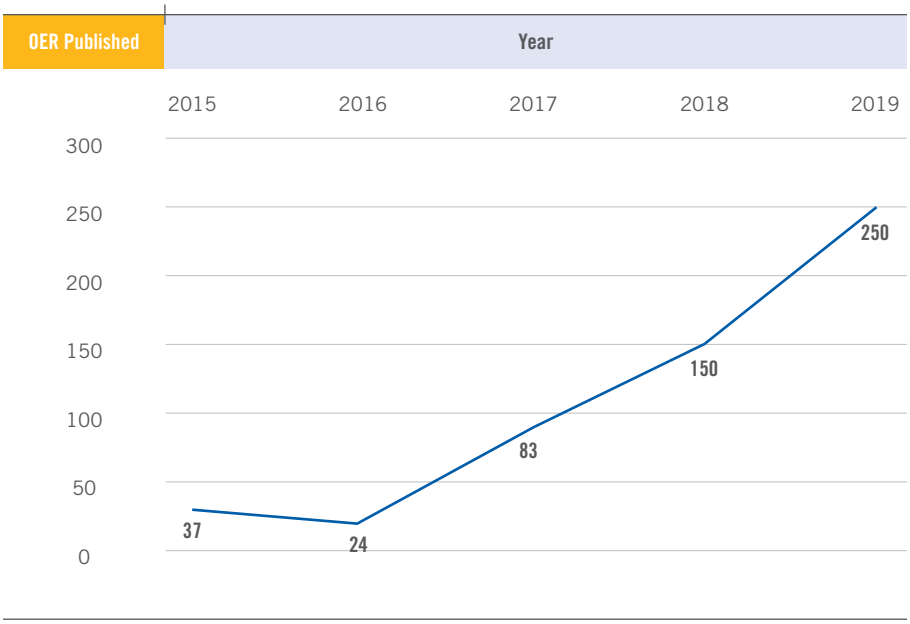


Figure 1. Developed from data captured from CUNY Academic Works as of January 3, 2020.

Annual Downloads of OER Published on CUNY Academic Works (2015-2019)

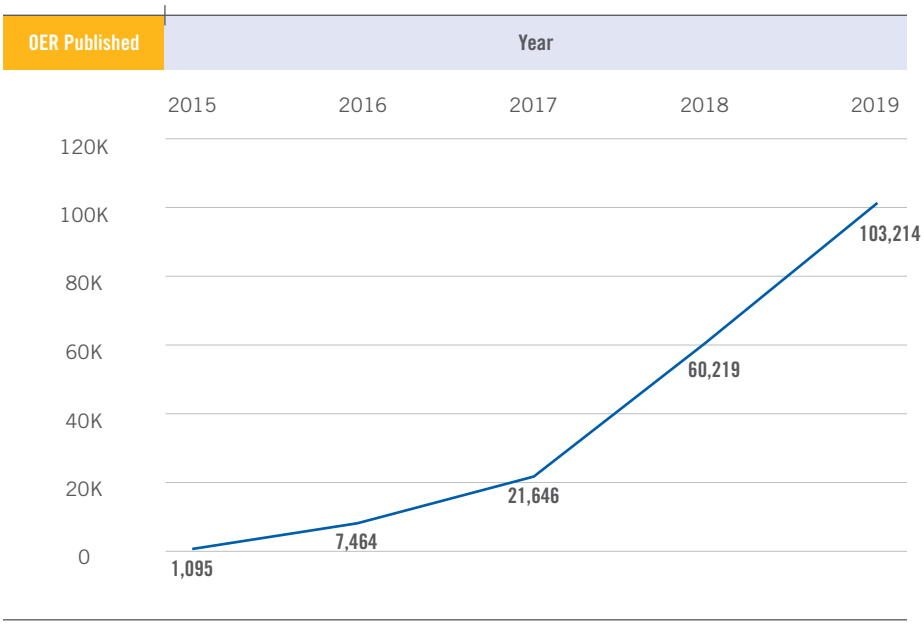


Figure 2. Developed from data captured from CUNY Academic Works as of January 3, 2020.

Map of 2019 Downloads of OER Published on CUNY Academic Works

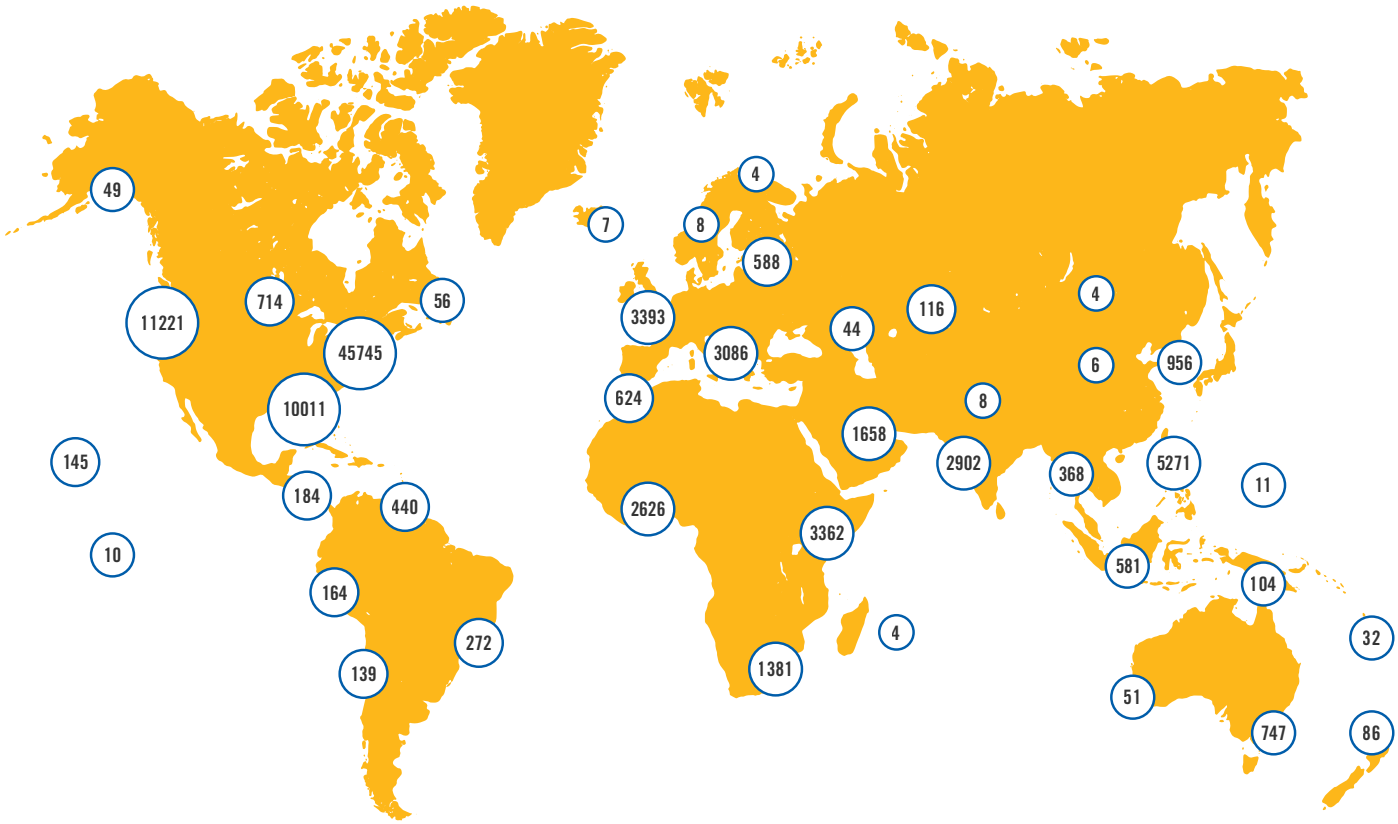


Figure 3. Developed from data captured from CUNY Academic Works as of January 3, 2020.

CUNY RESEARCH

CUNY faculty and librarians have contributed to the growing collection of research about OER, publishing 23 studies since 2011[2] Tackling such topics as OER impacts on pedagogy, the role of the library in OER, the implications on campus diversity efforts, and the impact of students, these studies help to codify the advantages of OER, and provide examples of effective practice in this growing field. Examples of these works include the following.

- Student Textbook Purchasing: The Hidden Cost of Time (2019)[3] – Stacy Katz of Lehman College used systemwide student survey data to explore the time it takes for students to research textbook costs in order to find the lowest cost options. She found that most students spend at least two hours searching for the best price, but most ultimately purchase from the campus bookstore. She concludes that "By assigning openly available or free resources, faculty can help students save time, in addition to money."
- Open Educational Resources (2018)[4]: Why Libraries are Incentivizing Open Content Creation, Curation, and Adoption – Katz describes the important leadership role libraries have to play in OER implementation, and discuses examples of system-wide and institutionally-focused library-led efforts from across the country.
- What Impacts do OER Have on Students? Students Share Their Experiences with a Health Psychology OER at New York City College of Technology[5]. Cailean Cooney of New York City College of Technology reports on the findings of a series of interviews and surveys among student who accessed OER for the Health Psychology course. Overall, students responded positively to the variety of OER resources, indicating they were more easily accessed than traditional textbooks, were of the same or better quality than traditional textbooks, and would be willing to register for another course offering OER in the future.benefit of adopting OERs."
- Opening Up to OERs: Electronic Original Sourcebook vs. Traditional Textbook in the Introduction to American Government Course (2018)[6] – Dr. Shawna Brandle, political science professor at Kingsborough Community College, documented her experience creating an OER sourcebook for her American Government course and using it to replace an expensive textbook. Among her conclusions was that while the student outcomes were not what she would have hoped, "I nonetheless developed a redesign of my course and my approach to teaching, which is the true benefit of adopting OERs."

[2] See complete bibliography at https://docs.google.com/document/d/1IZxwUcZK9Ox3rgtr8eBp2ypkcqRFm8IcpuqZqEi95sM/edit.

[3] Katz, Stacy, "Student textbook purchasing: the hidden cost of time" (2019). CUNY Academic Works. https://academicworks.cuny.edu/le_pubs/251. Accessed September 28, 2019.

[4] Katz, Stacy, "Open Educational Resources: Why Libraries Are Incentivizing Open Content Creation, Curation, and Adaptation" (2018). CUNY Academic Works. https://academicworks.cuny.edu/le_pubs/242. Accessed September 28, 2019.

[5] Cooney, C. (2017). What Impacts do OER Have on Students? Students Share Their Experiences with a Health Psychology OER at New York City College of Technology. The International Review of Research in Open And Distributed Learning, 18(4). doi:http://dx.doi.org/10.19173/irrodl.v18i4.3111. Accessed September 29, 2019.

[6] Brandle, Shawna M. 2018. "Opening up to OERs: Electronic Original Sourcebook Versus Traditional Textbook in the Introduction to American Government Course." Journal of Political Science Education. doi:10.1080/15512169.2017.1420482. Accessed September 29, 2019.

BUT WHAT DO THE STUDENTS THINK?: RESULTS OF THE CUNY CROSS-CAMPUS ZERO-TEXTBOOK COST STUDENT SURVEY

The findings of a survey of 890 CUNY students enrolled in Zero Textbook Cost (ZTC) courses, revealed their overwhelmingly positive experience Ninety-five percent indicated they would recommend a ZTC course to other students. In explanation for the support, students reported that accessing digital course materials was easier than accessing traditional textbooks. A vast majority (90%) accessed the materials early—either before the start of the class or during the first week of class. In explaining the benefits of their digital materials, students pointed to cost savings and ease of access. Ease of access was further explained by the ability to retrieve the materials anywhere at any time; the fact that all the materials were available online or in Blackboard; and/or the reduced burden of cost.

These benefits were further explained by students indicating that the easy access and reduced financial burden helped to reduce their stress. They also mentioned not having to physically carry their textbooks, and the reduction in paper makes digital resources more environmentally friendly. When asked about the drawbacks, "approximately half indicated there were not drawbacks." Among those who reported drawbacks, some questioned the quality of the materials and others indicated a preference for printed materials, and in some cases the difficulty of printing the materials. Finally, some mentioned that lack of a WIFI connection would preclude access.

Source: Brandle, S., Katz, S., Hays, A., Beth, A., Cooney, C., DiSanto, J., Miles, L., & Morrison, A. (2019). But What Do The Students Think: Results of the CUNY Cross-Campus Zero-Textbook Cost Student Survey. Open Praxis, 11(1), 85-101. doi:http://dx.doi.org/10.5944/openpraxis.11.1.932. Accessed Septemaber 29, 2019.

CUNY SYSTEMWIDE APPROACH: FROM INCREASING ADOPTION TO BUILDING INSTITUTIONAL INFRASTRUCTURE

During Year 2 of the New York State OER investment, CUNY, through the Office of Library Services (OLS), shifted its focus for the program. While Year One's emphasis was on the promotion and adoption of OER, Year Two's work emphasized institutionalization and sustainability. The work, then, involved providing shared resources, tools, and infrastructure to advance and sustain the OER efforts. OLS played a far-reaching role which involved not only administering grant funds, but convening stakeholders, collecting and analyzing program data, advocating for OER among University stakeholders and policymakers, and overseeing the implementation of tools and resources to discover, adopt, adapt, author, and share OER.

As **convener**, OLS convened and facilitated six work groups taking on the issues and challenges that emerged from the first-year implementation. The six work groups were OER & Technology, OER & Diversity, OER & Student Outreach, OER & Tenure & Promotion, and OER & Assessment. Membership was comprised of stakeholders representing administration, faculty, Centers for Teaching and Learning (CTLs), and librarians. Each identified important concerns and established work plans to address those concerns.

As a **disseminator**, OLS engaged in a variety of activities including encouraging participation in regional and national conferences to promote CUNY's efforts. For example, 36 faculty and staff representing 11 CUNY institutions delivered 19 presentations at OpenEd 2018. Additionally, 37 CUNY representatives presented at the CUNY/SUNY OER Showcase in March 2019.

As an **advocate**, OLS promoted the use of OER throughout the system, facilitating conversations with Chief Librarians, the CUNY Faculty Senate, and the University Student Senate to garner their support. As a result of these efforts, the University Student Senate endorsed OER through a resolution in February 2019. The Resolution "encourages the City University of New York to offer the support needed to faculty in order to adopt open textbooks."[7]

[7] Elvis Bakaitis. "CUNY University Student Senate Endorse OER". City Tech Buzz. 3/19/2019. https://library.citytech.cuny.edu/blog/cuny-university-student-senate-endorses-oer/ Accessed on September 29, 2019.

As a **grantor**, OLS designed and implemented the Year Two grant program to focus on institutionalization and acceptance of OER throughout the University. This involved building out platforms, expanding professional development programs, encouraging cross-institutional partnerships, and supporting the creation of new OERs and Z-Degrees.

INFRASTRUCTURE ENHANCEMENTS

Important to the sustainability of CUNY's OER advancement has been the seeding and development of curation and course delivery platforms, as well as those for authoring and sharing. These have been created and made available both at the system-level and through specific institutional initiatives as described below.

- **OpenEd CUNY** - Built on the same software as the OER Commons, OpenEd CUNY is a community for producing, sharing, and discussing OER at the City University of New York. Built as a part of CUNY's involvement in the New York State OER Scale Up Initiative, OpenEd CUNY is used by the 24 CUNY campuses to facilitate OER-enabled pedagogy and make the work that CUNY faculty, staff, and students are doing with OER more visible and shareable[8]

- **CUNY Academic Works** - A service of the CUNY Libraries, CUNY Academic Works is dedicated to collecting and providing access to CUNY's research, scholarship, and creative work. The site provides for the preservation and dissemination of a full range of scholarship, including faculty research student works; scholarly journals published by or associated with the University; and digitized archival documents from CUNY's libraries and special collections.[9]

- **CUNY Academic Commons** – In its 10th year, the CUNY Academic Commons, hosted and supported by the CUNY Graduate Center, was designed for and with CUNY faculty, staff, and students as an open source software project to support faculty initiatives and build community through the use of technology in teaching and learning.[10] According to Luke Waltzer, the CUNY Graduate Center's Director of the Teaching and Learning Center, while the Graduate Center does not have undergraduate students, most of its students teach undergraduate courses. The Commons and other Graduate Center resources were designed with this "professoriate of tomorrow" in mind. Therefore, "the Commons' user base has expanded rapidly over the past three years as more undergraduate courses are taught using the platform. Many of the users are new to teaching on the open web."[11] To support its use, the Graduate Center brought two instructional technologists on board to work with faculty. During the 2019 academic year, those technologists worked with "over 300 faculty members through conference presentations, consultations,

[8] https://opened.cuny.edu/about. Accessed on September 29, 2019.

[9] CUNY Academic Works. https://academicworks.cuny.edu/about.html. Accessed September 28, 2019.

[10] CUNY Academic Commons. https://commons.gc.cuny.edu/about/about-the-commons/. Accessed September 28, 2019.

[11] Luke Waltzer, "Beyond the Horizon: OER, Open Pedagogy, and the CUNY Graduate Center". City University of New York. New York: March, 2019. https://cuny.manifoldapp.org/read/337def73-85ba-4e2a-b1d1-4033d825036f/section/179c0c72-8597-4cfa-b365-a08e6802b4c6. Accessed September 29, 2019.

and training sessions to introduce the CUNY Academic Commons as an open teaching platform."[12] In line with keeping the Commons relevant as its user base and their needs grow and change, new enhancements were released this year to facilitate launching groups and sites[13],[14], inviting colleagues or students[15], and creating templates, plugin packages, and widgets to facilitate open licensing, branding and integration with the library system.[16]

- **Manifold** – Created by the Graduate Center Digital Scholarship Lab in partnership with University of Minnesota and Cast Iron Coding, Manifold at CUNY is designed to serve as an OER repository "built by faculty for use in the classroom"[17] According to Krystyna Michael, "Manifold allows instructors to create dynamic course materials by publishing custom editions of public domain texts and open educational resources (OER). Instructors can embed additional notes, files, images, videos and interactive content into the text to create a multimedia reading experiences…it also supports social reading through collaborative annotation, so students can "meet" in the margins of the texts and discuss course content online."[18]

- **TeachOER.org** - Baruch's TeachOER.org is a user-friendly resource developed to help faculty explore and find existing OER and open repositories. As it evolved, the CETL worked with faculty to create and share teaching materials. These, in combination with faculty reflections are shared and provide examples for interested Baruch faculty. A recent addition has been a new section of the site devoted to teaching about OER, including the Baruch CETL's own faculty development materials which are shared under a Creative Commons licenses to facilitate education about OER for interested faculty across CUNY.

- **Vocat media artifact platform** - Vocat is an open source platform that was originally created for Baruch College faculty members to provide specific feedback on students' in-class presentations. As the creation and sharing of video content became easier, the utility of Vocat expanded. When the redeveloped version launched in 2014, students could upload video, audio, and still images themselves, and instructors could provide feedback from any web browser. Faculty and staff have used it for diagnostic assessments of English Language Learners, to facilitate student analysis of well-known speeches, and as a space for students to perform interpretive readings of Shakespeare. Faculty at the CUNY School of Law have used Vocat to help first-year law students refine their oral arguments, and at York College, music faculty have had students post performances and original compositions to the tool.

[12] CUNY Graduate Center. "CUNY Academic Commons Annual Report: 2018-2019". New York: 2019. https://news.commons.gc.cuny.edu/wp-content/blogs.dir/15/files/2019/08/2018-2019-CUNY-Academic-Commons-Annual-Report.pdf. Page 3. Accessed September 29, 2019.

[13] https://news.commons.gc.cuny.edu/2019/05/07/version-1-15-released-streamlined-creation-for-groups-and-sites/. Accessed September 29, 2019.

[14] Stephan Real. "Announcing Version 1.14: Improving The Commons for OER Teaching and Research". CUNY Academic Commons News. November 13, 2018. https://news.commons.gc.cuny.edu/2018/11/13/announcing-version-1-14-improving-the-commons-for-oer-teaching-and-research/. Accessed September 28, 2019.

[15] Scott Voth. Welcome to Commons 1.13!". CUNY Academic Commons News. https://news.commons.gc.cuny.edu/2018/05/07/welcome-to-commons-1-13/. Accessed September 28, 2019.

[16] Real, 2018.

[17] Krystyna Michaels. "Manifold for Open Educational Resources". Building Open Infrastructure at CUNY. New York City: March 2019. https://cuny.manifoldapp.org/read/untitled-84d43a1f-0a80-4404-ad34-448a687f9d49/section/69bda1c1-d995-43c6-842b-b38bc1655b7f. Accessed September 28, 2019.

[18] IBID.

COMMONS IN A BOX (CBOX) OPENLAB

Commons in a Box OpenLab is a CUNY-built free and open source software that enables anyone in the world to launch a commons for open learning. It brings together two successful projects: The Graduate Center's Commons in a Box (CBOX; http://commonsinabox.org/), which allows organizations of all kinds to create vibrant online community spaces, and City Tech's OpenLab (https://openlab.citytech.cuny.edu/), an open digital platform that has been used by almost 29,000 members of the City Tech community since its launch in Fall 2011. The result, CBOX OpenLab, is a new version of CBOX modeled on the OpenLab that is specifically designed to support teaching, learning, and collaboration. Unlike closed online teaching systems, CBOX OpenLab allows members to share their work openly with one another and the world. Like a lab, it provides a space where students, faculty, and staff can work together, experiment, and innovate. CBOX OpenLab is now being used by faculty at BMCC.

FACULTY AND STAFF SUPPORT

Perpetuating OER usage requires exposure and substantial know-how on the part of faculty. Centers for Teaching and Learning (CTLs) and libraries throughout the University have worked to address that need, designing and delivering a variety of staff development training and education workshops to prepare faculty for course conversions. Examples of these include the following.

- **The Graduate Center (GC)** offered programs to support faculty development of OER. These programs offered a rich set of content and featured speakers from across CUNY who spoke to critical and emerging issues.
    - » **Open Pedagogy Fellowship** – Fourteen doctoral students were selected as fellows through The CUNY Graduate Center's (GC) Open Pedagogy Fellowship. Fellows were selected for their interest in open resources and the scope of potential projects: all were currently teaching across seven CUNY campuses. The Fellows engaged in a rigorous, 4-day OER Bootcamp.
    - » **OER Bootcamp** – The GC-sponsored OER Bootcamp featured presentations and hands-on experiences for the Fellows who participated. Fellows created course sites on the CUNY Academic Commons, converted to ZTC, and were trained to find and use OER in their discipline. They learned about Open Access (OA), Fair Use, Creative Commons, archival resources, attribution, remixing content, and the ethical and pedagogical considerations of teaching in the open.
- The Center for Teaching and Learning at **Baruch College** ran two seminars that provided 22 faculty with information on OER/ZTC, copyright issues and Creative Commons licensing. The workshops encouraged adoption of OER/zero cost materials while sharing best practices for implementing them in the classrooms. Faculty then had a chance to explore how they might create a ZTC course. Of this year's faculty participants, eight have committed to converting a course to ZTC and two further faculty are exploring coordinating the conversion of multi-section courses. In addition, several participants have stated their intention to replace some of their current, cost-bearing course materials with OER or zero cost materials. Faculty can share their work through the Blogs@Baruch platform and will be able to showcase their work on the newly developed teachoer.org repository.
- **City College of New York (CCNY)** utilized part of their OER grant to implement day-long workshops throughout the year defining OER, discussing fair use and Creative Commons licensing, and articulating the kinds of support the Library can provide. Faculty were provided a $300

"

We give faculty a chance to get some definitions and practice before they make any kind of commitment to actually changing the course... because while we want everyone to embrace OER, it is important to offer faculty development with no strings attached...come and learn and see if this is right for you."

Pamela Thielman, OER Coordinator, Baruch College's Center for Teaching and Learning

stipend to attend, and an additional $700 - $2,000 for converting their courses to zero textbook cost sections.

- **Lehman College and School of Professional Studies (SPS)** – Beginning in June 2017, the office of Faculty Development and Instructional Technology at CUNY SPS and the office of Online Education at Lehman College with the support of Lehman Library offered a two-week fully online, asynchronous workshop on OER. The workshop, which is now offered once per semester, has an enrollment cap of 25 faculty per semester and takes a faculty development approach. It focuses on a process of exploring, evaluating, and selecting resources, as faculty share ideas and observations with their peers and are provided with targeted feedback from the workshop facilitators. Participants are offered a modest stipend as a thank you for their participation, which they receive only if they complete all the workshop requirements, receive an 80% evaluation on their course plan, and complete and report on each of the required tasks. Additionally, participants must also complete a 10-hour synchronous "Teaching Online" course. To date 68 faculty have completed the workshop, many of whom have gone on to convert their courses. The workshop content has been made available to the OER Community via the CUNY Academic Commons so that colleagues can offer this OER faculty development opportunity on their campuses.

- **Queens College** introduced a Digital Literacy and OER Faculty Fellowship aimed at cultivating a culture of open at the College. The inaugural cohort included eleven faculty members from nine departments. The fellows met eight times as a group to learn the fundamentals of OER and digital literacy, copyright, accessibility, digital rhetoric, collaboration, storytelling, assessment, and the Makerspace. Faculty also worked one-on-one throughout the semester with the College's Emerging Technologies and Digital Scholarship Librarian to develop creative pedagogical uses for OER. At the end of the semester, each fellow had composed learning objectives, identified or created course content, developed an assignment or assignment sequence and rubric, and completed a syllabus for a fully ZTC course.

- **Achieving the Dream hands-on sustainability workshops** – During the Spring of 2019, four OER strategy and planning workshops were delivered to CUNY institutions. The goals of these workshops were to identify the institutional challenges and opportunities of implementing an OER project ; describing the effective components of sustainable OER implementation and integrating these components into a draft OER implementation plan to be used to strategically guide an institutional OER project. These hands-on sessions resulted in the development of OER implementation action plans that are being used to strategically advance participating college's OER projects.

"

There is such a diverse student body at CUNY. Faculty are learning from the students. The student voices and their perspectives need to be heard publicly. With [open pedagogy] both faculty and students are engaged and excited."

Miriam Deutch, Associate Librarian for Access Services/Art Specialist, Brooklyn College

BUILDING A CULTURE OF OER AT BARUCH COLLEGE

Allison Lehr Samuels came to Baruch's Center for Teaching and Learning (CTL) with a background in entrepreneurship and consulting. She used that consultative approach to create and implement the CTL's OER services. Those services include faculty seminars, support for adapting and creating OER, and the development of the TeachOER repository. All the services have been informed both by best practice from across the University as well as Baruch faculty input all along the way.

When she came on board, Lehr Samuels undertook a listening and speaking tour among stakeholders at Baruch. She would start her meetings by explaining there is an opportunity to bring a grant to the campus and soliciting ideas, trying to find out who would be interested and what they would like to do "It was an opt in from the start."

Through focus group discussions and an assessment of faculty and students participating in year one of the grant, she learned a great deal. First, faculty needed a course resource manual to help ground them in the terminology and process. She also learned why they were opting in to participate in OER –textbooks weren't able to keep current in rapidly changing disciplines and others felt many textbooks had only one, very Euro-centric voice, and wanted to include new voices.

This learning informed the seminar model created at Baruch for which faculty receive a stipend to participate. The seminar is one day, and the topics include OER, Creative Commons, accessibility, and backwards course design. Faculty bring an assignment to use for hands-on activities. Lehr Samuels and her team view the OER work as a continuous improvement effort. They implement ongoing assessment of their OER programming—faculty focus groups and interviews, ZTC course syllabus analysis, and online student surveys. These have been key to developing new services and programs or adapting the ones they have.

In asking her if she had advice for others she said, "I can't emphasize enough about learning from others and from other campuses, but also making sure it makes sense for your campus."

She also spoke about the importance of broadening the discussion around OER. "The initial focus of the grant has been on OER and textbook savings, yet I think this is higher ed's opportunity to rethink about how and why we use course materials in our teaching. How can course materials help instructors meet their course learning goals, and also inspire student research, creativity and greater access to learning for all?"

And, she reminds us about the need to weave OER into the promotion and tenure policies if we want to sustain the efforts over the long term.

"

"Building in some flexibility is a way to build a culture of OER - even if faculty don't commit to teaching a ZTC course, after participating in the seminar a greater number of faculty have awareness of OER, understand fair use, accessibility, and reflect on their pedagogy."

Allison Lehr Samuels

OPEN PEDAGOGY

Among the innovations undertaken within the second year of state OER investment was the emphasis on exploration and experimentation with Open Pedagogy. CUNY faculty worked with their Centers for Teaching and Learning (CTLs) to utilize OERs to engage students in not just consuming knowledge but creating it. Examples include the following:

- **Brooklyn College** – The OER Development Team partnered with the Brooklyn College Center for Teaching and Learning to offer a series of workshops on Open Pedagogy. These workshops illustrated different ways of enacting the belief that students, as part of their learning, can be—and should be—not only consumers of knowledge but also producers of it. Each workshop connected faculty with a technologist who can assist faculty and students with the digital tools used to support various pedagogies. Workshop topics included Teaching with Maps and Podcasts; Annotation in the Digital Classroom; Using Wikipedia as a Teaching Tool; and Using Open Publication Platforms.

- **Borough of Manhattan Community College (BMCC)** – In 2018, leveraging the initial New York State OER funding, BMCC created The Open Pedagogy Program. Focused on the process of moving their classrooms from teacher-centered to student-centered to learner-centered, seventy BMCC faculty have redesigned their courses using Open Pedagogy.

- **The CUNY Graduate Center** - 75 participants, mostly students of color, discussed open access, labor, and race and diversity within higher education at Breaking Open: An Open Pedagogy Symposium. Keynote speaker Clelia Rodriguez, author of Decolonizing Academia: Poverty, Oppression, and Pain, situated the OER project in contexts of representation, knowledge production, and academic labor. Attendees had the opportunity to "deconstruct the syllabus," through a dynamic and participatory activity that highlighted the everyday politics of salt, soil, sugar, and coffee. Twenty-two Graduate Center doctoral and master's students, predominantly students of color, received stipends of $150-$175 to attend the event.

CHANGING STAFFING MODELS

Institutionalizing OER at the colleges requires changes in staffing— increasing staff time, shifting job titles and roles and/or hiring more staff to support OER efforts— as detailed in a couple examples below:

- **Brooklyn College** – Unlike other institutions who offer workshops or seminars, Brooklyn College determined that a one-on-one consultation model would work within the institution's culture. To accomplish this, Librarian Miriam Deutch hired two instructional technologists and created an OER room, equipped with an LCD screen and hook-ups for a Mac and PC. Using this approach, faculty have completed approximately 100 OER courses to date, saving students $2.7 million.[19]

- **LaGuardia Community College** – After a piloting OER in five sections each of eight courses in in the Spring 2018, the Mathematics, Engineering and Computer Science department went full-scale OER with basic skills and gateway courses, totaling 200 sections. Such a large implementation required a coordinated team with clearly defined roles. The project leads were Drs. Abderrazak Belkharraz (MEC Chairperson), Tao Chen, Jeanne Funk, Alioune Khoule, Milena Cuellar, and Glenn Henshaw. In addition, the project included MAT 107, 121, 200, 201, 202, 203 coordinators, ten faculty mentors to oversee training, a project coordinator, technical support, professional development team, and a copyright team. Additional faculty partnered with lead players to continually evaluate the project. They continued to hold weekly meetings in addition to the department meeting, and examined student survey data, numerical data (pass rates and attrition), and qualitative reports of faculty teaching experience in order to improve courses' master sections. In describing the sequence of events leading up to the implementation, Dr. Belkharraz said it was not hard to convince faculty, "people wanted to do it because it will help students — it was personal to them."

"

The faculty have done amazing work. Supporting faculty to do this work is so important. They have no time but throw themselves into this [to] transform their courses. [They] care so much about their students."

Jean Amaral, Associate Professor, Library, BMCC

[19] Brooklyn College OERs may be found at https://libguides.brooklyn.cuny.edu/oeralt

OER CHAMPION
CHING-JUNG CHEN

In 2017 Ching-Jung Chen, City College of New York's Digital Scholarship Librarian, took the reins of the institution's OER efforts. Before that time, "there was no OER. People didn't know about it." The State funding gave the institution the incentive they needed to move forward, and Dr. Chen made it her priority. Though she was very interested, she hadn't had much OER training. She needed to learn in order to be able to lead. She visited her CUNY colleagues who had shown some success and brought back effective practices to apply at City College.

This was a real change of culture for the institution. Early in Initiative, she attended a faculty meeting during which a participant shared his perspective of OER, "They are trying to take your work from you." And, with the workload the faculty were already carrying, Dr. Ching recognized it was a hard sell to ask them to find the time to convert their course materials.

With support from the administration and a few early faculty adopters, she persevered, attending faculty meetings, engaging with NYPIRG to train students to speak with their professors about OER, talking to anyone who would give her 5 minutes, even to the faculty member who happened to sit next to her at commencement . And, buy in they did. Faculty converted 98 courses to OER. This amounted to 290 course sections impacting over 8,700 for a savings of over $1 million in the first year.

Ching-Jung knows that she needs to stay ahead of the curve in order continue to advance the growth of OER at City College. This year she was named a SPARC Open Education Leadership Fellow. Over the next two semesters she will participate in peer-to-peer project-based learning activities designed to arm her with the knowledge she needs to lead City College's efforts to grow.

Does she have any advice for others looking to start OER programs at their campuses? "You need faculty buy-in or there won't be any OER courses." She recommends finding early adopters among the faculty to help champion the efforts and encourage participation among their peers.

"

there was no OER. People didn't know about it."

Ching-Jung Chen

DEVELOPMENT OF Z-DEGREES AND Z-PROGRAMS

Students had access to a variety of new zero textbook cost or Z-degrees leveraging the State's investment and that of an Achieving the Dream grant.

- **School for Professional Studies** – In the Fall of 2018 the CUNY School of Professional Studies launched its Z-Degree in Communications and Media. This program, the first undergraduate Z-Degree at a CUNY senior college, has now made it possible for the bachelor's degree to be completed without students ever purchasing a textbook.[20]

- **Baruch Entrepreneurship Z-major** – In Spring 2019 the Entrepreneurship group in the Management Department of the Zicklin School of Business successfully completed a total revision of the undergraduate curriculum for the BBA Minor and Major in Entrepreneurship. A key element of the revision is that all the required courses in the minor (3 courses) and the major (5 courses) will become OER/ZTC. The entrepreneurship faculty are also revising all the electives for the major (9 courses available; students must take 3).

- **Z-Degrees**[21] – Three Zero Cost Associate Degrees were developed with support from an Achieving the Dream grant—Criminal Justice at Borough of Manhattan Community College (BMCC), Early Childhood Education at Hostos Community College, and General Education with a concentration in History at Bronx Community College, all of which are now being shared across the University.

[20] "CUNY SPS Makes First Undergraduate "Z Degree" Possible at City University of New York". CUNY: November 27, 2018. https://sps.cuny.edu/about/news/cuny-sps-makes-first-undergraduate-%E2%80%9Cz-degree%E2%80%9D-possible-city-university-new-york. Accessed September 29, 2019.

[21] "Achieving the Dream OER Degree Initiative". https://www2.cuny.edu/libraries/open-educational-resources/achieving-the-dream-oer-degree-initiative/. Accessed September 29, 2019.

OER CHAMPION
MADELINE FORD

Hostos Community College (HCC) Chief Librarian Madeline Ford had concerns about diving into OER because she knew such an undertaking would require a high level of faculty support, and HCC just didn't have the resources. However, she was intrigued. When the Achieving the Dream OER initiative landed on her desk she saw her opportunity. The Provost resoundingly supported the project and suggested the Early Childhood Education program because the majority of classes are offered as hybrid and asynchronous. Madeline contacted department the chair and unit coordinator who also supported the idea but suggested a need to engage chairs and faculty more broadly. New to OER, she wanted to understand not just the "how" of OER, but "how to do it well". Several library faculty put together a LibGuide on OER seeking to answer the question "Why do we want to do this?" She focused on the ability to have greater control over the content than faculty have with textbooks. Her research was the tool she needed to gain the support of all the department chairs. They submitted a proposal and received the funding. Working with faculty and librarians, and with help from Lumen Learning, they were able to produce and launch the Early Childhood Education Z-Degree.

There were certainly obstacles along the way. Timeframe, for one, was a challenge. There were limited OERs available in early childhood for curation, adoption and adaptation. This left faculty with the choice of using free resources not openly licensed or creating new OERs. Creating new OERs brings added challenges of designing them for ease of use by students. The librarians were willing to jump in and help but did not have the technical confidence. Lumen did much of this work. While that helped with the first degree, Dr. Ford and others knew this would be an unsustainable model for the future. The institution hired two part-time librarians who had a coding background to support this work. LibGuides are created to support the OER material. Faculty are paired with librarians based on subject-matter and course content area.

They have had some success and are building on those efforts—capturing and publishing student voices to engage other students; encouraging faculty to become involved even if they are not yet ready to adopt or adapt OER. Making them aware of small things they can do which will make a difference to their students. And, they share with and learn from their peers at other institutions including joint OER celebrations with the other Bronx campuses so that faculty can discuss what they are doing and learn from one another.

"

New to OER, she wanted to understand not just the "how" of OER, but "how to do it well".

CROSS-INSTITUTIONAL COLLABORATIONS

Learning from one another and leveraging promising practices from one institution to the next will result in greater outcomes for students, faculty, librarians and stakeholders throughout CUNY.

- **CS+X** - In December of 2018, The Office of the Associate Dean for Technology Education, under the supervision of Susan Imberman published a request for proposals for the CSO4All CUNY OER Initiative. The purpose of the project is to create OERs that "serve as a resource for the creation of general education, pathways courses in tech." CSO, or non-major, computer science courses are designed to provide students with an understanding of the field of computer science with the intent of creating a knowledgeable digital citizen. The first phase of the project created a set of tech-based materials focused in the computer science domain, all available as OER. In the second phase, materials that embrace the CS plus X for X plus CS nature of tech, where X is any field other than traditional computer science.[22]
- **Code Control: A Serious Game as an OER to Improve Coding Skills** - A partnership between Brooklyn College and the College of Staten Island resulted in the development of Code Control, a game designed to help teach and improve fundamental coding skills. The game is intended to be used in introductory programming classes in our institutions, as well as other CUNY colleges, to help students practice their programming skills in an engaging and motivating fashion. A key feature of our game is that instructors can easily upload customized challenges for students to complete in the game, thus making this an educational tool that is tailored for specific sections and their course goals.

[22] ACERT. CS+X4All CUNY Request for Proposals. https://acert.hunter.cuny.edu/blog/csx4all-rfp/2018/12/03/. Accessed September 29, 2019.

WHAT THE FUTURE HOLDS: LOOKING AHEAD TO AY 2019-20 AND BEYOND

Looking ahead, OLS is focused on three areas: supporting OER creation, sharing CUNY-created content both across CUNY institutions and outside CUNY, and developing new cross-institutional cross-university collaborations that leverage the strengths of institutional and university partners. Additionally, leveraging CUNY's data driven strategy the university will identify and target growth opportunities in pathways courses and across under-represented disciplines.

SUPPORTING OER ADOPTION AND CREATION

There was substantial adoption and remixing of OER during Year 2 of the State investment. During Year 3, institutions across the system will be creating new OER adding to the repository of resources available to faculty and students. Some examples of those efforts include the following.

- **Guttman Community College** is in the process of creating a monograph, Ethnographies of Work, to replace the text they currently use. This monograph, which will be house of Manifold, is a creation that involves students and faculty working together.
- **City College of New York** will help faculty adopt WeBWorK as their homework system. Additionally, the Center for Excellence in Teaching and Learning (CETL) staff are developing ancillary materials in collaboration with OER faculty and library staff.
- At **Hostos Community College** a team of faculty members will collaborate and develop the ancillary Biology materials needed for the successful completion of the course by students.
- **The School of Professional Studies** will convert 25 additional courses, including 100 percent of General Education sections, to OER/ZTC courses by continuing to offer its successful OER Faculty & Course Development Workshop, followed by hands-on course development support. They will launch Z bachelor's degrees in liberal studies and sociology, bringing the school to a total of three Z-Degrees.
- **City Tech** will partner with Reading Effectively Across the Disciplines (READ), Writing Across the Curriculum (WAC), and honors scholars' programs to convert learning materials that have been developed by faculty experts to be shared more widely with faculty and students as OER.

"

Instead of just replacing $110 textbook with a free textbook, the materials have to align to the students you are working with."

Jonathan Cornick, Associate Professor, Mathematics and Computer Science, Queensborough Community College

- **Teachers of co-requisite courses** – To address the additional remediation and support needs of co-requisite students, faculty at Queensborough Community College created materials for College Algebra and non-STEM Quantitative Reasoning co-requisite courses. These free materials—notes, labs and homework—have been added to MyOpenMath so students have "just-in-time" access to the materials. Additionally, the faculty have created pre- and post-online homework assessments so students can identify where they are having trouble and fix any mistakes on the spot.

- **CUNY Arts** was founded to facilitate the integration of the arts into all aspects of university curriculum. Created on the belief that exposure to the arts improves students' critical thinking skills, CUNY Arts adopts New York City cultural institutions as an extended campus and provides for paid internships. Activities and assignments created through CUNY Arts collaboration with OLS will be documented and openly licensed so others can adapt the content for their own context.[23]

FUTURE CROSS-INSTITUTIONAL COLLABORATIONS

CUNY institutions are continuing to join together in order to learn from one another and scale their innovative work, as illustrated by these projects which will take place during the 2019/2020 academic year.

- **Bronx Open**- Hostos Community College, Lehman College, and Bronx Community College faculty will apply to participate in a professional development and assignment conversion program. In the Fall they will receive a full-day of workshop introducing Open and Open Pedagogy, exposure to a rich variety of open pedagogy case-studies, and a facilitated workshop where they will convert one of their own existing assignments to an open pedagogy approach. Following the full-day event, they will be required to finalize the assignment design, openly license it, deposit it in Academic Works, and submit a guided reflection of the experience. There will be a showcase in spring where participants will have an opportunity to share their work. Each participant will receive a $300 stipend. This will be open to all faculty with targeted marketing to adjunct professors.

- **Open Pedagogy Overview and Teaching with Wikipedia** - In collaboration with the Hostos Center for Teaching and Learning, Borough of Manhattan Community College will offer two teaching institutes related to open pedagogy, taught by Jean Amaral, the Open Knowledge Librarian at BMCC and Megan Wacha, the Scholarly Communications Librarian at OLS, and open to faculty from all three Bronx CUNY campuses.

[23] From: CUNY Arts webpage - https://www1.cuny.edu/sites/cuny-arts/about/, accessed October 30, 2019.

[24] https://openpedagogy.commons.gc.cuny.edu/2019/09/26/open-pedagogy-fellowships-gc-doctoral-students-apply-now/ Accessed October 4, 2019.

FUTURE EFFORTS IN OPEN PEDAGOGY

Building on the work during Year Two, CUNY institutions will continue to proliferate Open Pedagogy efforts both through expanding projects begun during Year Two and by providing faculty development workshops.

- **Brooklyn College - Brooklyn Beyond the Classroom: Reimagining Pedagogy Across Campus and Community** - This interdisciplinary project involves an English course, Brooklyn in Literature; Art History, History of Architecture and Urbanism in New York City; and a Sociology course, Children and Youth Studies. The project will include original research as well as curation of existing resources by students and faculty. Students will research the tremendous richness of Brooklyn through literature and architecture, while the Sociology students will research the impact of public policies on young people growing up in various communities. Initial plans are to begin in three neighborhoods: Brooklyn Heights, Marine Park, and Red Hook.

- **Borough of Manhattan Community College Open Pedagogy/WordPress Seminar** - Using the Borough of Manhattan Community College Open Lab and CUNY Academic Commons platforms, faculty across the University will be able to engage students through open pedagogy, promoting student agency and positioning students as knowledge creators with the possibility of publicly expressing their learning through the open course sites. This faculty development program will support faculty in creating course web sites to teach their OER/ZTC courses in the open.

- **Open Pedagogy Fellowship** - In 2020, the Graduate Center will extend the Open Pedagogy Fellowship [24] to both full-time and adjunct faculty. The Fellowship experience will enhance participants' understanding of open pedagogy and their ability to employ elements of open pedagogy in their teaching. Throughout the Fellowship, a variety of concepts relating to open pedagogy will be introduced, including evaluating, supplementing, and teaching with Open Educational Resources (OER), integrating zero-cost course materials, and licensing, copyright, and fair use as it pertains to OER. Fellows will participate in a four-day OER Boot Camp, an Open Pedagogy Symposium, a Syllabus Conversion Project, and OER Scholarly Engagement.

- **Open Pedagogy Seminar** – A selected group of faculty representing a variety of disciplines at John Jay College of Criminal Justice will participate in a seminar designed to cultivate proficiency in open pedagogy. A faculty fellow responsible for assisting with the seminar and promoting faculty buy-in will be appointed to support that effort.

- **Open Pedagogy and Renewable Assignments among Civic Engagement Faculty** – At Kingsborough Community College, ten faculty fellows who will work with and OER Faculty Leader to develop three renewable assignments based on the United Nations Sustainable Development Goals; student fellows will participate in these meetings and assist fellows in developing their materials. Faculty and student fellows will license their work through creative commons, share them through CUNY's OER platform, and ideally present them at a regional or national conference.

LEHMAN COLLEGE USES OER TO TEACH OER

At Lehman College, Dr. Olena Zhadko, Director of Online Education and Dr. Susan Ko, Faculty Development Consultant and Clinical Professor in History, are passionate about OER, and practice what they teach. Together they have created a two-week, fully online, asynchronous workshop, Enhancing Your (Online or Hybrid) Course with Open Educational Resources (OER), to engage and prepare faculty to design courses with OER.

Serving as a catalyst for innovative teaching and learning, the workshop is designed to help get faculty started and emphasizes course planning and instructional design as key elements. During the workshop, faculty receive specific feedback and complete hands-on assignments driven by their interests and needs. At the conclusion of the workshop participants develop a course planning document that will guide intentional course planning with OER. To date, 68 Lehman faculty have successfully completed the workshop.

Zhadko emphasizes that the workshop is an OER. "We want others to adopt it and adapt it. Not every place does online faculty development and OER. It can really help a college or department get started. You can access workshop materials at https://oerworkshop.commons.gc.cuny.edu/."

Dr. Zhadko and Dr. Ko' s book "Best Practices in Designing Courses with Open Educational Resources (OER)" is being published and will become available in December 2019 as part of the Routledge's Best Practices in Online Teaching and Learning Series.

"

We want others to adopt it and adapt it. Not every place does online faculty development and OER. It can really help a college or department get started."

Dr. Olena Zhadko

ONGOING OER RESEARCH

With more innovation comes more research and learning. CUNY OER stakeholders are continuing to experiment, learn, and share their findings. During the 2019/2020 academic year, several studies will take place, the results of which will be published to add to the growing library of OER research.

- **OLS Research Grant** - During the 2020 academic year, the CUNY Office of Research and Library Services will fund approximately eight grants of up to $10,000 to faculty to contribute to a growing evidence base focused on the effectiveness of open educational resources (OER). The grants will be open to faculty from all departments in all disciplines at CUNY two-year and four-year schools who have built, or are interested in building, OER capacity.
- **CUNY Collaborative Open Education Resources in STEM Program (COERS)** –CUNY OLS asked grantees to collaborate and develop OER courses for STEM between community and senior colleges. The projects include:
    - » Increasing the OER Capacity of Pre-calculus Courses at York College & Queensborough Community College
    - » DC and AC Circuit Analysis Laboratory Manual Set At Queensboro and City Tech
    - » Challenges and Impact of Implementing Waymaker OER in General Biology at two CUNY Colleges, MEC and KBCC
    - » Redesigning College Algebra and Pre-calculus track with Open Education Resources at Hunter College and BMCC
    - » Anatomy and Physiology Laboratory Content Assessed between a Non OER and OER Anatomy and Physiology Laboratory Class at Hostos and Lehman College
    - » John Jay and BMCC OER Mathematics and Computer Science Collaboration
    - » Development and Utilization of OER in General Chemistry @ LaGuardia Community College and York College
    - » Using OER and computable content open platforms in a CS0 course at Medgar Evers College and BMCC
    - » Project-based pedagogical approach in introductory C++ courses at Queensboro Community College and Queens College

- **Evaluation and Assessment** – Institutions across the system will be evaluating programs and reporting on their results.
    - » **LaGuardia Community College** will conduct student surveys and focus groups to revolving around OER use; The LAGCC Open Resources Librarian will lead post-development/-use faculty and student focus groups around new content development and faculty training.
    - » **Borough of Manhattan Community College** will evaluate their OER sections launched through the CUNY OER Scale-up Initiative looking at student costs, progress toward degree and creation of systems and structures that better connect curriculum and pedagogy.
    - » **Hostos Community College** will provide release time for an Assessment Ambassador who will implement assessment projects and author corresponding reports.
    - » **Lehman College** will administer a Zero Textbook Cost Student Experience Survey.
    - » **School of Professional Studies** will conduct a full learning outcomes assessment for at least two General Education courses that have been converted to OER/ZTC.

These projects represent just a small handful of innovative work across CUNY to build and sustain OER adoption. As CUNY kicks off AY 2019-20, OLS and institutional leadership will continue to support and enhance efforts to pilot, create, scale, and sustain OER projects for the benefit of faculty, students and institutions across the University.

Report Prepared by

edBridgePartners.com


CUNY
THE GREATEST
URBAN UNIVERSITY
IN THE WORLD