

Final Performance Report

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Overview

“Learning in the Public Square: An Open Platform for Humanities Education” brought together two successful CUNY initiatives, CUNY Graduate Center’s Commons In A Box community-building software (<http://commonsinabox.org/>; CBOX) and City Tech’s OpenLab platform for teaching, learning, and collaboration (<https://openlab.citytech.cuny.edu/>), to create Commons In A Box OpenLab, free and open source software that enables anyone to launch a commons for open learning. The project seeks to bring humanities education into the public square by making the work of students and faculty visible to one another and the outside world, enabling them to build connections across institutional and disciplinary boundaries. It also seamlessly integrates software developed by digital humanities practitioners, moving these tools and their benefits for learning within reach of teachers and students at any institution.

The software developed for this project consists of multiple components:

- 1) An installation tool that manages installation for both CBOX OpenLab and the original Commons In A Box software (now CBOX Classic), via a streamlined process that lowers barriers to entry;
- 2) A suite of tools, accessed via a user-friendly dashboard, that enable the administrator of each individual CBOX OpenLab installation to customize the behavior of the site (support for use in languages other than English is also included);
- 3) A visually appealing and accessible WordPress theme, which controls the site’s overall appearance and may also be customized via the dashboard;
- 4) A set of WordPress and BuddyPress plugins that are required or recommended for installation with CBOX OpenLab; this collection of tools provides such functionality as discussion forums and robust email notifications, teaching-oriented features such as support for grading, and includes digital humanities tools such as Anthologize, Braille, and PressForward.

In addition to building the CBOX OpenLab software, we worked with a group of testing partners from a range of institutions around the country: SUNY Geneseo, The University of Wisconsin at Green Bay, The Futures Initiative at CUNY, Lane Community College and the DH at Community Colleges Consortium, and the San Diego Regional DH Consortium. The testing partners participated in user testing and provided feedback at key points in the project’s lifecycle.

Finally, we developed robust documentation, including demo sites and a support forum that we are using to provide support for adopters of the software, and a submission process via which digital humanists can contribute code to the project as it moves forward.

CBOX OpenLab was successfully launched in October 2018 and is already being adopted at institutions locally, nationally, and internationally. We are excited by its potential to make a major contribution to humanities education, offering a powerful and flexible open alternative to closed proprietary platforms that is built by, with, and for the community it serves.

Project Activities

Year 1: September 2016 - August 2017

During the first year of the grant, the team primarily focused on analysis, design, and development of the initial (alpha) version of the Commons In A Box OpenLab software.

Analysis

We began the analysis phase by creating a set of “user stories” to describe the software’s potential users and their needs; this helped us to clarify the project’s scope and prioritize features for design and development. The team also conducted a thorough review and critique of both CBOX and City Tech’s OpenLab, documenting their functionality, analyzing their usability successes and challenges, and identifying enhancements that should be incorporated in the new software. The development team also did extensive technical analysis of CBOX and the OpenLab to strategize the steps necessary to abstract the OpenLab’s bespoke architecture into a form that can be distributed as part of CBOX. We also mapped out a detailed timeline for design, development, and testing.

Design and Development

During the design phase, we created a set of wireframes, which laid out the user interface, along with visual designs, and specification documents, which provided detailed descriptions of the functionality and the technical approach to development.

We then proceeded with development, using an iterative approach in which we built prototypes of each component; these were subjected to review and feedback before incorporation into the alpha version of the software, which was scheduled for release at the beginning of Year 2.

By the end of Year 1, three major components of the software had been completed--the installation manager, admin tools, and WordPress theme--and the team was in progress with conducting thorough end-to-end testing in preparation for the alpha release.

Outreach

Meanwhile, we engaged with our testing partners, colleagues from institutions around the country who have prior experience with the CBOX platform. This included conducting a survey aimed at understanding their goals for using CBOX OpenLab, their interest in specific features and functionality, the educational technology infrastructure at their institutions, and their needs for training and support.

We also began to create awareness of the project and seek additional participants, presenting our work both locally within CUNY and beyond (see the Award Products section below for details).

Finally, we designed the branding for the new software: Commons In A Box OpenLab: A Commons for Open Learning (project logos can be found here: <https://commonsinabox.org/about-the-project/logos>).

Year 2: September 2017 - August 2018

Design and Development

In Year 2, the team completed the end-to-end testing described above and released the alpha version of the software at the beginning of November 2018.

The team also designed and conducted a user test of the software, working with our testing partners across the country. This was a facilitated test, in which the testing partners completed a set of tasks using the alpha release software under the supervision of our user experience consultant in a shared test environment.

The user testing was extremely productive: the testers were excited to engage with the software and responded to it very positively. However, the tests did bring to light some usability issues that we needed to address. As a result, we spent significant time in Spring 2018 making revisions to the visual designs and specifications, completing the associated development work, and testing the changes; this resulted in some delays to the project timeline overall (discussed further in Accomplishments below).

Meanwhile, the team continued to move forward with development of the final component of the project, i.e. integration of the WordPress and BuddyPress plugins that are required or recommended for use with CBOX OpenLab. These include important Digital Humanities plugins such as Anthologize, Braille, and PressForward.

Once software development was complete, we conducted extensive end-to-end testing of the entire CBOX OpenLab package across web and mobile platforms, in preparation for public release.

Documentation

With the software design finalized, we also began creating documentation for the project. The team updated the Commons In A Box website (<https://commonsinabox.org/>) to alter it from a site that described a single project (CBOX) to one that described a single project (CBOX) with two available packages (CBOX Classic and CBOX OpenLab), and creating extensive detailed documentation for the features and functionality of CBOX OpenLab, along with a support forum and demo site.

We also documented the process via which DH and other practitioners may submit plugins for potential inclusion in the CBOX OpenLab package.

Outreach

In addition to working with our testing partners, team members presented at local, national, and international conferences (see the Award Products section below for details), and were invited to discuss the project with interested groups at other CUNY campuses.

No-Cost Extension: September 2018 - August 2019

Towards the end of Year 2, we requested and were granted a no-cost extension year to enable us to finalize and release the software and conduct post-release support and outreach.

Finalization

In addition to completing our end-to-end testing of the beta release and the project documentation, we worked with Reclaim Hosting, a popular hosting service for educational institutions and digital humanities projects, to enable CBOX OpenLab administrators to easily launch the software in a Reclaim-hosted environment. We developed two options for hosting: (1) integration into Reclaim's CPanel administration interface, which will allow users to experiment with CBOX alongside other DH platforms such as Omeka, WordPress, and Scalar, via a low-cost account and a one-click installation process; and (2), a specialized managed hosting service for CBOX installations that require more robust infrastructure.

Prior to the public release, we also conducted a session in which we demonstrated the beta version of the software to our testing partners; they were very enthusiastic about the platform and excited by its many features, including the changes we had made in response to their earlier feedback.

Public Release

With testing and documentation complete, and the Reclaim partnership in place, the team launched the CBOX OpenLab software on October 29, 2018, with a formal announcement from The Graduate Center, CUNY (<https://www.gc.cuny.edu/News/All-News/Detail?id=46706>), posts on the CBOX site, City Tech's OpenLab, and the CUNY Academic Commons, announcements via listservs (such as Humanist, Centernet, DHSI, and Global-DH), and broad dissemination via Twitter. Our announcement was very well received, as indicated by the responses to our social media work (for instance, @mkgold announcement:

<https://twitter.com/mkgold/status/1056951699129151489> and @cbox announcement: <https://twitter.com/cbox/status/1056951237650903041>).

Adoption of the software is discussed in the Audiences section below.

Post-Release Support

In the months since the software launched, the project team has provided technical and user support for early adopters of CBOX OpenLab via our active online support forum (<https://commonsinabox.org/groups/openlab-help-support/forum/>).

Additionally, we developed, tested, and implemented two maintenance releases (versions 1.1.1 and 1.1.2) which included improvements to compatibility with underlying software (WordPress, BuddyPress, and PHP), along with plugin updates and fixes to issues reported by CBOX OpenLab users (details of the releases can be found here: <https://commonsinabox.org/archives/category/releases>).

Outreach

Following the successful creation and release of the software, our focus has turned to outreach and fostering uptake of the platform. We have continued to publicize the project at local, national, and international conferences (see the Award Products section below for details), and to discuss the project with interested faculty and staff at institutions within CUNY and beyond.

Accomplishments

We are delighted to report that we successfully achieved the project's goal: designing, building, and releasing Commons In A Box OpenLab, free and open source software that enables anyone in the world to create a commons for open learning (see Award Products below for details of the software produced).

This was a complex technical task which involved: refactoring the existing CBOX software to support two versions (CBOX Classic and CBOX OpenLab); abstracting key features and functionality originally built for the City Tech's OpenLab and implementing them as a WordPress theme and suite of plugins for inclusion in the CBOX OpenLab package; integrating digital humanities plugins (Anthologize, Braille, and PressForward) and other needed BuddyPress and WordPress plugins; conducting end-to-end testing of the entire software package across multiple browsers and hardware platforms; and producing robust user documentation.

For an in-depth look at our timelines and processes, please see the Development Timeline attached in Appendix [?](#), which tracks our activities across a range of development tasks:

- the installation process
- member types management
- group types management
- top-level dashboard page
- plugin feature management
- registration management
- theme customization
- academic units management
- modifications of the existing OpenLab user interface
- group categories
- communication settings
- project website text
- full end-to-end testing

We did encounter some challenges along the way: the initial design and development phase took longer than anticipated, and user testing of the alpha version of the software revealed some issues that we had to resolve before the public release. As a result, we needed to concentrate our resources on the software development aspects of the project, and were unable to conduct full pilots with the testing partners as originally envisaged, along with the associated workshops and webinars.

However, the project has successfully delivered software that is sophisticated, full-featured, visually appealing, and thoroughly tested and documented. CBOX OpenLab is already being enthusiastically adopted by institutions in the US and beyond (see Audiences below), and we are excited about the project's prospects for continuation, and its long-term impact on humanities education and educational technology more broadly.

Audiences

The project was conceived to enable faculty and staff at educational institutions to launch digital communities for open learning, with a particular focus on pedagogy in the humanities and digital

humanities. While it typically takes institutions some time to adopt large-scale institutional software such as Commons In A Box, because of its requirements for both technical and support infrastructure, we are delighted to report that several institutions and initiatives have already begun to use CBOX OpenLab as our proposal envisioned.

One example is the installation at the University of New Haven (<http://unewhavendh.org/>), led by Mary Isbell, Assistant Professor of English and Director of First-Year Writing and the Writing Center. The OpenLab at University of New Haven is being used by faculty and students participating in the Digital Humanities Lab program (see the course site here: <http://unewhavendh.org/digital-humanities-lab/>), along with courses and projects in English and other disciplines.

CBOX OpenLab is also being implemented at the Borough of Manhattan Community College (BMCC), which is part of the CUNY system and serves more than 26,000 students. BMCC launched its OpenLab in Spring 2019 (<https://openlab.bmcc.cuny.edu/>); currently it is running as a limited pilot for students in the Media Arts and Entertainment program, but the project team expects that the platform will soon host a wide array of courses, projects, clubs, and open educational resources across the institution.

We are also seeing adoption of CBOX OpenLab outside the US. Sally Everson, Assistant Professor of English at the University of the Bahamas, is launching an installation designed to host Collaborative Online International Learning (COIL) initiatives. For instance, the “Climates of Inequality in the Bahamas” project is using the platform for student research focused on the impacts of Hurricane Dorian on Grand Bahama through the lens of global inequalities in climate change. As the project description notes: “The results of these projects will be incorporated into a local exhibit for the Sustainable Grand Bahama 2020 conference, and as a contributing chapter for the international travelling exhibit Climates of Inequality of the Humanities Action Lab” (see <https://globalx.junkanooingb.com/education/groups/climates-of-inequality-in-the-bahamas/>). In addition, CBOX OpenLab is being used by Thompson Rivers University, Canada, under the leadership of Brian Lamb, Director of Innovation, Open Learning, for the institution’s Graduate Certificate in Online Teaching and Learning program.

We should note that the examples above are gleaned from direct contact with the users involved. Gathering quantitative data about adoption of the software is currently a challenge, since CBOX does not use cookies or other mechanisms for tracking usage, due to an intentional decision, on the part of the project team, to refrain from collecting installation data due to privacy concerns.

Looking forward, we are in discussion with several campuses at CUNY and beyond about potential installations of CBOX OpenLab, and we anticipate further interest in the platform from colleges and universities across the country and around the world as our outreach work continues and we are able to showcase more examples of the software in action.

Evaluation

As already noted, the project followed an iterative model of development, meaning that formal evaluation and integration of feedback played an essential role throughout the project lifecycle. Team members reviewed designs and completed code at each development milestone, and we gathered feedback from our testing partners via both formal user testing and demonstration sessions. Following the software's public release, we have continued to respond to bugs reported and feedback and suggestions received via our support forum (<https://commonsinabox.org/groups/openlab-help-support/forum/>).

As we described under Accomplishments above, the project was challenging from a technical perspective, and we had to revise the timeline to accommodate user feedback, and focus our efforts on the development aspects of the project. This meant that we were unable to engage as fully with our testing partners (via pilot installations and workshops) or the wider DH community (via outreach, webinars, etc.) as we had originally planned, within the scope of the grant funding.

However, as we also note, the award has resulted in high-quality, well-documented software that has the potential to have a transformative impact on humanities education. And standing behind the project as we move forward is another key strength: the expertise, enthusiasm, and dedication of the project team.

Continuation of the Project

After the grant ends, we will provide ongoing support and maintenance for the software (addressing bugs and answering user queries) through continued commitments by the CUNY system and our parent projects, the CUNY Academic Commons and the City Tech OpenLab.

Going beyond this baseline, however, we are already working on enhancements to CBOX OpenLab via two key project partnerships. The first is a grant-funded collaboration that focuses on smoothing the path for students transferring from BMCC to City Tech to pursue programs in communication design and computer systems technology (U.S. Department of Education HSI-STEM project, "Digital Pathways," 2016-2021, P031C160132). As part of this work, we are partnering with BMCC to enhance the portfolio components of both City Tech's OpenLab and CBOX OpenLab, enabling students to create attractive portfolios to showcase their digital work and transfer them seamlessly between institutions. We expect that other enhancements will be needed as the project moves forward; this development work will benefit all users of CBOX OpenLab.

We have also secured modest funding from CUNY's Open Educational Resources initiative, a New York State-backed program that aims to promote large-scale adoption of OERs across CUNY. These funds will enable us to take important recent enhancements that the City Tech team has made to the OpenLab, abstract them, and implement them in CBOX OpenLab. For example, City Tech's OpenLab allows faculty to make their courses available for other faculty to "clone," a powerful feature that promotes adoption of best practice pedagogies and a culture of generosity and sharing. The OER initiative is also enabling us to provide consulting support to other campuses at CUNY who are interested in adopting CBOX OpenLab, and to promote CBOX OpenLab locally, nationally, and internationally via outreach to the OER community. We view this as an important collaboration that we will continue to foster in upcoming years.

Long-Term Impact

Key to the long-term sustainability of Commons In A Box OpenLab is that it is built on widely-used open source software, which enables us to participate in the worldwide WordPress and BuddyPress development community. As part of the OER initiative described above, we will be convening discussions with other open source software initiatives locally at CUNY, with the goal of identifying opportunities for collaboration that will result in further enhancements to the CBOX OpenLab software in future.

Similarly, we expect additional opportunities for collaboration to emerge as institutions beyond CUNY continue to adopt CBOX OpenLab. As promised in our proposal, we have created a technical framework and a workflow that will enable other projects, large and small, to submit plugins for review and inclusion in CBOX OpenLab. This will make their work more readily usable in humanities education, amplifying the impact of their efforts—and the investments made by their funders—while contributing to the ongoing sustainability of CBOX OpenLab by providing a pipeline for new features and enhancements.

In this way, we envisage CBOX OpenLab serving as a nexus for collaboration at CUNY and beyond. It is our belief that digital initiatives are made stronger by working together; by building collaboration into our workflow, we enable others to join us in the important work of opening education for the humanities and for the common good.

We are extremely grateful to the NEH Office of Digital Humanities for funding this important project. As envisioned in our proposal, the grant has enabled us to combine the innovations of two projects with strong track records at CUNY—Commons In A Box and City Tech's OpenLab—and leverage the deep knowledge and expertise of the project teams to create free and open source software that we believe will make a major intervention in humanities education.

We would also like to thank our testing partners for their many contributions, and our colleagues on the CUNY Academic Commons, Commons In A Box, and City Tech OpenLab teams, without whose prior work our project would not have been possible. Finally, we would like to acknowledge the fantastic work done by our project team in delivering and continuing to support the platform: <https://commonsinabox.org/project-team>.

Award Products

Software

The primary product of the grant is the Commons In A Box OpenLab software. This was released in October 2018 as a major release of the Commons In A Box WordPress plugin, which is freely available via the WordPress plugin repository:

<https://wordpress.org/plugins/commons-in-a-box/>

Our code is also openly shared on Github under the GNU General Public License; please see the following repositories for details:

Commons In A Box -- <https://github.com/cuny-academic-commons/commons-in-a-box>

CBOX OpenLab Core -- <https://github.com/cuny-academic-commons/cbox-openlab-core>

CBOX OpenLab Theme -- <https://github.com/cuny-academic-commons/openlab-theme>

CBOX Theme -- <https://github.com/cuny-academic-commons/cbox-theme>

We will continue to update the codebase regularly; see our project website for details.

Documentation

Additionally, we rewrote and redesigned the Commons In A Box website (<http://commonsinabox.org/>), which now provides extensive documentation, demonstration sites, and support forums for both the CBOX Classic and CBOX OpenLab packages.

The website will continue to be enhanced as new features are released and to provide additional information in response to user questions.

Conference Presentations

Team members have also presented about CBOX OpenLab in a number of venues, both nationally and internationally:

Digital Humanities 2017, Montreal, Canada, August 2017

Developing Hispanic-Serving Institutions (Title V) Project Directors' Conference, Washington, DC, November 2017

American Studies Association conference in Chicago (November 2017) - who did this?

CUNY IT Conference, December 2017

Bronx EdTech Showcase, April 2018

Critical Pedagogy, April 2018 <- did this happen?

Open Education Global Conference in the Netherlands (April)

CUNY Coordinated Undergraduate Education Conference, May 2018

CUNY Digital Humanities Initiative, November 2018

CUNY IT Conference, November 2018

Invited presentation to Undergraduate Research Directors from across the CUNY system at the CUNY Office of Research, December 2018

Bronx EdTech Showcase at Lehman College, CUNY NY, May 2019

CUNY CUE (Coordinated Undergraduate Education), City Tech, CUNY NY, May 2019

OER19 conference, Galway, Ireland, April 2019

ACH 2019 conference, Pittsburgh, PA, July 2019