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# Building a Student-Centered (Digital) Learning Community With Undergraduates

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#### Abstract

This article argues that digital humanities projects can promote social change, collaboration, equity, and creativity through a focus on pedagogy in the undergraduate classroom. We analyze a pedagogical project that overtly set out to challenge structures of power and privilege in the undergraduate classroom through the use of an open-source online learning community. The Futures Initiative Commons in a Box site was developed and modified by the university faculty, graduate, and undergraduate students that make up the community of users. This learning community invites undergraduate and graduate students to become active knowledge-producers who contribute to their own teaching and learning. As such, the site works to increase students' agency and reconfigure hierarchical relationships of power and knowledge.

At its best, education catalyzes student agency, encourages critical, creative, and collaborative thinking, and promotes equity, even amidst conditions of widespread inequality and injustice. But how often are these values promoted, or even reflected, in our digital learning environments? As Miriam Posner argued in a recent keynote delivered at the Keystone Digital Humanities Conference, "For all of its vaunted innovation, the digital humanities actually borrows a lot of its infrastructure, data models, and visual rhetoric from other areas, and particularly from models developed for business applications" [Posner 2015]. In digital learning spaces, there is a similar problem: design often borrows from a traditional instructor–centered model of learning, with little room for collaboration among students, peer review, or opportunities for students to design aspects of their courses. In addition, as Audrey Watters recently argued, learning management systems collect massive amounts of student data that is not necessarily owned or protected by universities [Watters 2017]. While closed and proprietary educational technologies often maintain hierarchies between instructors and undergraduates and discourage creative student–driven learning, user–designed and student–centered digital tools can, in fact, redistribute power and contribute to the much larger project of social change.

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In this essay, we examine how an open-access online learning space can work to enhance the egalitarian and participatory nature of an educational community. Based on our experiences creating a customized online network to advance the pedagogical goals of a course taught at the Graduate Center of the City University of New York (CUNY), "Mapping the Futures of Higher Education," we will consider two questions: 1) What might a digital humanities project look like if you start with the educational needs and desires of diverse undergraduate students in a sprawling, vibrant public university system? 2) How can online community spaces enhance undergraduate digital humanities pedagogy? By exploring these questions, we hope to support others in bringing the insights of humanistic inquiry and critical pedagogy to bear on the production of digital learning spaces that maximize participation, equity, and collaboration within and beyond the undergraduate classroom.

Selecting and developing a platform that would help both graduate and undergraduate students form a generative learning community was not only an educational technology project, but one that required the insights of humanistic knowledge and inquiry. It required thinking about power dynamics in the classroom and multiple ways of conceiving student-teacher relationships. For these insights, we turned to critical pedagogy, and the work of thinkers such as Paulo Freire, Jacques Rancière, and bell hooks [Freire 1970] [Rancière 1991] [hooks 2003]. Critical pedagogy challenges

teachers and students to reconfigure hierarchies of power and knowledge in classrooms, institutions, and society. Thinking alongside Freire, who argues that liberatory pedagogy can only emerge by working "with, not for" [Freire 1970, 48] those marginalized by the social order, we took a grassroots approach to knowledge production by developing this platform with ample input from the graduate student instructors and undergraduate students who were using it. Our work was also informed by Rancière's emphasis on teaching students to learn from one another, rather than having to rely on an authority figure. Cognizant of ways that classrooms often reproduce power hierarchies, we sought to create an online community that would support learning through a more egalitarian, collaborative, creative, student–centered, and participatory experience.

While the online community we built can be understood as one possible answer to Posner's call for critical interrogation and radical reimagination, our digital humanities praxis is also inspired by an earlier interlocutor, Audre Lorde, a poet, activist, and theorist who was also both a CUNY alumni and professor. In her essay, "The Master's Tools Will Never Dismantle the Master's House," Lorde argues that feminists need a different relationship to difference: one that understands racial, sexual, and gender differences as sources of vital creativity, the kind of creativity necessary to imagine and bring about a more just and equitable world. In our efforts to build a user-friendly tool that would welcome and celebrate differences among undergraduate student users, we also used the insights of intersectionality, which, as Roopika Risam has recently argued, encourages digital humanities practitioners to "begin their work with an understanding of the particularities necessary to design projects that account for influences of difference on knowledge production" [Risam 2015]. As such, we sought to build a learning community that would help draw out the wide range of experiences and knowledges that diverse undergraduate students bring to their classrooms.

With these considerations in mind, we embarked on our project to create an online environment that would unsettle academic structures of power and privilege, in part by treating differences — including differences in learning styles — as a valuable resource necessary for institutional and social change. We wanted not only to critique the structures of power reproduced through proprietary, hierarchical, and closed-access educational technologies, but to provide horizontal networked and open alternatives developed through structured collaboration between public university teachers and students. As we refined our online community, we sought to actualize these principles, remaining conscious of the ways in which one-size-fits-all assumptions about pedagogy, assignments, composition, and assessment have historically discouraged and excluded students who learn in distinct and creative ways [Davidson 2011] [Davidson 2017].

#### "Mapping the Futures of Higher Education"

"Mapping the Futures of Higher Education" was the inaugural course of the Futures Initiative, a program established in 2014 by Cathy N. Davidson at the Graduate Center, CUNY, in order to advance equity and innovation in higher education. A federated university system that consists of twenty-four colleges spanning the five boroughs of New York City, CUNY has historically been a hotbed of progressive pedagogy, in part due to its diverse, working-class student population.<sup>[1]</sup> The Free Academy (now CUNY's City College) was initially described as an educational "experiment" that would test "whether the children of the people, the children of the whole people, can be educated, and whether an institution of the highest grade can be successfully controlled by the popular will, not by the privileged few" [Our History]. Today, CUNY students come from 205 countries and speak more than 190 languages. Fifty–four percent are Pell grant recipients, 42% are first–generation college students, 75% are students of color, and 39% have household incomes of less than \$20,000 [CUNY Office of Policy Research]. We mention these statistics in order to highlight how the platform we adapted was designed both to engage the school's richly diverse undergraduate student population and to take into account students' financial situations and varied life circumstances.

In spring 2015, Cathy N. Davidson and William P. Kelly co-taught a nontraditional course entitled "Mapping the Futures of Higher Education" at the Graduate Center. While a graduate seminar may seem like an unlikely site from which to rethink undergraduate teaching in the digital humanities, this radically interdisciplinary course focused explicitly on the unique dual role of graduate students as formal learners and teachers: it brought together graduate students who were teaching undergraduate classes with the explicit aim of empowering their students by moving beyond academic models of apprenticeship, expertise, and hierarchical authority — the same ideals that have structured higher education since

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the mid-nineteenth century. The course thematized the discrepancy between our current, standardized forms of education, still shaped by the Taylorized Industrial Age (1865-1925), and the new modes of distributed agency, knowledge production, and communication made possible by the Internet. Graduate students and their undergraduates explored "new methods of peer learning and teaching, interdisciplinary research collaborations, experiential learning, new digital tools, and public (online) contributions to knowledge" [Syllabus] that are critical for 21st-century knowledge-producers.

"Mapping" built a networked community that extended beyond the 13 graduate students enrolled in the course to the 365 undergraduates they were teaching across ten of the CUNY campuses throughout the city, at schools like Lehman College, Queens College, and Kingsborough Community College. While the graduate student teachers came from many disciplines, and were teaching undergraduate courses in topics ranging from chemistry to theater, all used student-centered, peer-driven pedagogy to achieve successful student outcomes. In addition, they all helped their undergraduate students increase their digital literacies through their use of the networked Futures Initiative online community site and guided them in experiments with digital knowledge production. While not all of the undergraduate courses were taught in the humanities, the graduate and undergraduate student instructors engaged in interdisciplinary digital humanities praxis through their frequent interaction with the course website, their final collaborative mapping projects, and their critical reflections on the affordances of digital technology for scholarly inquiry and the process of teaching and learning.



In a moment of decreased educational funding, promoting education as a public good has never been more urgent. As their final project for the course, the graduate student instructors and their undergraduate students used the Futures

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Initiative site as a space to collaborate on their contributions to the "CUNY Maps of New York" project: a compendium of maps, films, visualizations, websites, and timelines, all of which testify to the tremendous resources that public education contributes to a city (futures.gc.cuny.edu/maps). While many digital humanities projects such as Mapping the Republic of Letters, HyperCities, and Around DH in 80 Days revolve around mapping, few showcase the creative, diverse, interdisciplinary work produced by predominantly working-class undergraduate students — "Futures Initiative Scholars" — from across two– and four–year colleges. These multifaceted public maps illustrate what students learned during their semester of intensely student–centered pedagogy, demonstrating how undergraduate education is not something we invest in only for individuals, but that radiates out to benefit larger publics.

#### **CUNY MAPS OF NYC**

Explore the interactive maps created by Futures Initiative Scholars and Fellows



Figure 2. CUNY Maps of NYC: https://futuresinitiative.org/maps/

## The initial installation

As Futures Initiative Research Fellows, we were charged with the task of adapting and implementing a platform that would allow these undergraduate and graduate students to find a supportive online community as they tried teaching and learning methods such as student blogging, student-led class facilitation, student-designed study guides and even quizzes, and final projects that were both collaboratively created and publicly shared. Given that the traditional pedagogies of higher education "have changed far more slowly than the modes of inventive, collaborative, participatory learning offered by the Internet and an array of contemporary technologies" [Davidson and Goldberg 2010, 9], we designed the digital environment for this course to encourage these engaged modes of learning.

In order to help both the graduate student instructors and the undergraduates in their courses connect across geographic divides, we chose the Commons In A Box (CBOX) platform — a free, open-source software project developed by a team led by Matthew K. Gold and based at the Graduate Center, that provides users with various ways

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to engage in online conversations, collaborate on projects, and share content [Commons In A Box]. Since the Futures Initiative advocates for greater equity and innovation at every level of the university, it was important to have a website that was accessible, served to facilitate learning and exploration, could be used by instructors across different disciplines, and also connected community members. Using CBOX, with its open-source and CUNY-based roots, was a logical choice for us, as it aligned with our expectations and needs for a dynamic website structure. According to the platform designers, "CBOX will be useful to any organization that is looking for a shared space in which to build an engaged community of users and developers" [Commons In A Box]. CBOX utilizes both groups and sites as spaces for users to create content and engage with each other. Groups have a user interface similar to discussion forums, presenting an easy way to create conversations or for instructors to ask questions of students.



Networked sites can function as static course sites, course blogs with student-authors, personal blogs, or personal sites.

#### Class Schedule

Week	Date	Blog
	Jan. 22	Syllabus-Building Workshop
1	Feb. 3	First Class
2	Feb. 10	Discussion and Intro to Mapping
3	Feb. 17	Assessment, Part 1
4	Feb. 24	Assessment, Part 2
	Mar. 6	NYPL Field Trip
5	Mar. 3	Visit to the Chancellery
6	Mar. 10	Student-Centered Pedagogy, Part 1
7	Mar. 17	Student-Centered Pedagogy, Part 2
8	Mar. 24	Professors and Persistence, Part 1
9	Mar. 31	Professors and Persistence, Part 2
10	Apr. 14	Discussion with Dean John Mogulescu
11	Apr. 21	Embodiment and (Meta)Movement, Part 1
12	Apr. 28	Embodiment and (Meta)Movement, Part 2
13	May 5	Works in Progress
14	May 12	Works in Progress
	May 22	Celebration and Reception

Our work was deeply collaborative, student-driven, and often looked a little messy along the way.

Figure 4. Public-facing blog for students in "Mapping the Futures of Higher Education"" with links to studentdesigned seminar sessions https://futuresinitiative.org/about-mapping-futures/

For our customized version of the platform, we worked to create a site that further considered accessibility with a safe and open feel while increasing the likelihood of a user to explore content and connect to people through groups and sites affiliated with the primary or parent site.

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Prior to the first meeting of "Mapping the Futures of Higher Education," Futures Initiative Deputy Director Katina Rogers and Graduate Fellow Lisa Tagliaferri ensured that an initial iteration of our CBOX-based site was up and running. At first, the site was set up as a hub site affiliated with the graduate-level course taught by Davidson and Kelly, with the understanding that the graduate student instructors would be creating connected sites for their undergraduate-level courses. To that end, our initial version of the site utilized a customized version of the CBOX Infinity Theme with a few essential plugins such as iframe and document embedders to encourage the use of multimedia. We have also included Leaflet's Maps Marker Pro plugin since the beginning of the course in order to supplement the mapping component of the graduate course.

#### Balancing public pedagogy and supportive learning spaces

Many of our decisions regarding our CBOX installation involved finding a balance between the benefits of public-facing pedagogy and the need to create a supportive learning environment in which students could experiment with new ideas and take intellectual risks without the fear of public scrutiny. While there are certainly benefits to having undergraduates write and learn in public, doing so can make them susceptible to "trolls" — people prowling the Internet looking to attack, rather than meaningfully engage with, those whose viewpoints differ from their own (see, e.g. [Berg 2015]). Though we

are committed to working transparently in public, we also respect the privacy of the individuals participating in our program. Therefore, we have given courses and groups the option to be private or partially-private on the site, so that students and their instructors can decide how public they would like their learning and teaching to be. Upon creating a site or group, users determine the level of privacy, though they can later change permissions and access levels through their administrative dashboard. To ensure a safe and inclusive online area for users and courses, independent groups and individual sites can be set by each networked site's administrator — in this case, the doctoral students teaching undergraduate courses — to be completely public, open to the site's network members but closed to the public, completely private, or public with a locked area. This degree of user autonomy offers users a level of freedom and authority to choose how best to generate and share their content and to what audience(s).

These various levels of privacy allow courses to operate without the public watching if users choose, or users can alternately run a very transparent course so that other instructors can make use of resources and methods coming out of student-centered learning practices. Of the sites on the Futures Initiative network, about 40% are visible to the public to some degree, while 60% are visible only to users affiliated with that specific site. Of the groups, 38% are public, 50% are private, and 12% are hidden. As is evidenced by these numbers, the level of privacy selected by users who administer sites and groups greatly varies, with many choosing each option. The control afforded to users — in this case both course instructors and undergraduate students — in determining the degree of access that others have to their content therefore seems to be valuable, as some prefer public spaces for convening while others opt for privacy to conduct courses or write a personal blog outside of the general public's eye. This balance provides both a haven for discussions to take place and a public platform to those who feel comfortable sharing their classrooms.

Collaborative and user-driven environments can create risks for users, particularly in terms of privacy and data security. As privacy and Internet ethics scholar Michael Zimmer notes,

Web 2.0 also embodies a set of unintended consequences, including increased flow of personal information across networks, the diffusion of one's identity across fractured spaces, the emergence of powerful tools for peer surveillance, the exploitation of free labor for commercial gain, and the fear of increased corporatization of online social and collaborative spaces and outputs. [Zimmer 2008]

To counteract that risk, we advised graduate student instructors in best practices for digital identity management and recommended that they do the same with their students. For example, early in the semester, when creating a digital map of their courses using "selfies," graduate student instructors encouraged undergraduate students to use representational, rather than personally identifiable selfies (e.g. a book, a cat, an office chair) in order to protect their privacy. In addition, we customized the signup and profile creation process to ensure that users could determine how much of their identity they wished to share with others. Especially in a moment of heightened attention to students' immigration statuses, and considering that students may choose to use these online spaces to share personal stories and experiences, these privacy precautions are particularly urgent.

The site sign-up process presented an opportunity for graduate student instructors to talk with their undergraduate students about privacy and online identity. Instructors, in conversation with their students, set up options for signing up for an account using a pseudonym, the true identity of which would only be known by the instructor and (optionally) the students in the class, in order to protect students' privacy. While new users are asked for a CUNY affiliation, they do not have to reveal whether they are a student, instructor, faculty member, or administrator. This exemplifies our commitment to a non-hierarchical academic structure as a user cannot readily be identified by others as to their status, employment, or level of education — unless they decide to disclose this information in the "About you" profile field. While not differentiating among types of users created a more horizontal community structure, such a decision may merely conceal actual differentials of power and privilege between students and instructors, a tension we are working to address in future iterations.

All new users and their profiles are submitted for administrative approval by a human to dissuade advertisers and ensure that spambots do not populate the site, ensuring a protected and generative space. While this sign-up process

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has prevented inappropriate comments, it also caused some users to sign up several times as current web standards tend to grant automatic access to new users. Having an exclusively human administrator may prove to be unsustainable as our website grows with more connected graduate and undergraduate courses enrolling throughout CUNY. To date, we have not required a CUNY-affiliated or .edu email address, allowing each individual user to have greater agency in deciding how they engage with the site and present their identity.

Allowing sites and groups to be public, or at least listed publicly, encouraged users to interact across spaces within the Futures Initiative network. In "Open-Access Student-Centered Learning: The open web as a collaborative space for higher education in public," Lisa Tagliaferri found via network analysis and visualization that users joined course sites and user sites outside of those they were required to join for their coursework [Tagliaferri 2017]. This indicates that the CBOX platform of networked sites presents itself as an open and dynamic structure, similar to a sandbox game like Minecraft that is available for non-linear exploration. Several recent studies have found that games like Minecraft have proven to be effective tools for intrinsic self-motivated learning (see, e.g. [Short 2012] [Bayliss 2012] [Schifter and Cipollone 2013] [Saito et al. 2014] [Roscoe et al. 2014]). Tagliaferri's analysis of our CBOX installation suggests that digital learning environments encourage play and facilitate multi-disciplinary learning. Our Futures Initiative CBOX installation may become an environment in which we further explore how similar open world game mechanics, including the utilization of badges for learning [Grant 2013], may offer alternate ways to achieve educational outcomes.

## Promoting student agency through an online community

Student-centered learning and student leadership were clear focal points from the outset of "Mapping the Futures of Higher Education." On the first day of the course, the instructors, Davidson and Kelly, left the room, leaving behind a blank structured template for the semester's syllabus, plenty of markers, and 13 enthusiastic graduate students to determine the trajectory of the course. The graduate students chose four pedagogical topics that they believed were urgent to learn about:

- 1. student-centered pedagogy,
- alternative modes of assessment,
- undergraduate students' life barriers and the ethics of teaching, and
- 4. embodiment and meta-movement [About Mapping the Futures of Higher Education].

As the course progressed and explored these topics, we continued to develop the Futures Initiative CBOX site in ways 22 that took these lessons into account. In doing so, we used what software developers call "agile development" methodologies, striving for rapid and flexible responses to the evolving course needs and user base. Over time, we implemented additional customization, plugins, and styling in order to better serve the largely undergraduate user population via use cases and support sessions.

The "Mapping" class sessions on life barriers and ethics taught us about the demographics of the CUNY undergraduate student population. Improving our installation of CBOX required interpreting this data about undergraduate CUNY students to build an online community that would help improve their digital literacy, while minimizing barriers of entry and access. As has been noted extensively, the digital divide — or what Jan A.G.M. van Dijk suggests is more aptly named "the digital spectrum" - presents substantial issues for those who do not have access to the Internet [van Dijk 2005, 4]. Literacy and access to books have historically been vehicles for privileged classes to be informed, and today those who do not have access to the web do not have the same opportunities as those who enjoy Internet service in their homes. In the urban centers of the United States, libraries in particular offer computers connected to the Internet as a resource to the public, but this does not ultimately provide the same level of access to the web as broadband at home, school, and work.

The "mobile turn" has served to fill some of this gap, as recent studies have found that young students of color primarily access the Internet through their mobile devices (see, e.g. [Anderson 2015] [Lopez et al. 2013] [Smith 2013] [McGrane 2013]). Due to the increased adoption of smartphones as a tool to access websites, it is increasingly important to have mobile-friendliness or responsiveness at the center of web development [Mohorovičić 2013, 1206-1207]. Maura A. Smale and Mariana Regalado, associate professors working with two CUNY campus libraries, have found that many

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U.S. college students commute to campus and are therefore "mobile by default"; CUNY students in particular use their smartphones for academic activities including reading, research and even writing papers while making their way to campus on public transportation [Regalado 2015, 2] [Smale and Regalado 2014]. The importance of making our site mobile–responsive is underscored by a 2013 study which found that among students in the CUNY system, three quarters of respondents reported using mobile devices — including to access library research resources — while commuting and while out with friends [Becker et al. 2013]. CBOX was developed with a mobile and dynamic student body in mind, and we have further encoded responsiveness via plugins and CSS styling in order to be more available to students who are likely accessing our site while they are commuting to class using the public bus system or subways through New York City's boroughs. Noting that the average length of a CUNY student's commute is between 30 and 60 minutes each way [CUNY Office of Policy Research], and learning about the limited availability of wifi on certain campuses, further inspired us to use a responsive design with elements that would still work in low-bandwidth environments.

Another important theme that emerged from the "Mapping" course was the need to design lessons, activities, assignments, and assessment techniques shaped by an understanding of undergraduate students' diverse modes of learning. We hoped that the blog and forum components of the site would allow instructors to rethink assessment, and particularly how class participation is measured. While some students are either not afforded the opportunity to participate because they are enrolled in large lecture courses or they are intimidated by classroom conversation dynamics, a supplementary online conversation space can allow more students to participate and shape the content of their courses (see, e.g. [May 2014]). In their 2015 study of "Mapping," Janey Oliphint Flanagan and Deborah Greenblatt found that the digital tools used in the class, and the CBOX site in particular, "added to the sense of community by giving quieter students a comfortable place to share their thoughts and continue conversations outside of class time" [Flanagan 2015, 4]. By the completion of the first semester, the majority of the sites and many of the groups on the network were student-created personal sites, blogs, or groups that were not required by their instructors. Approximately 90% of the site users were undergraduate students, and they took the lead not only in creating sites, but also in exploring the course sites of classes they were not enrolled in.

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Figure 5. Site designed by undergraduate students in "Introduction to Narrative" at Queens College: https://futuresinitiative.org/education/

When developing the course- and network-wide final project, we focused only loosely on the concept of mapping, to allow for graduate student instructors and undergraduate students to interpret the project, adapt technologies to their learning goals, and approach technologies that were accessible to their skill and comfort levels. As information technologists Liang Jingjing and Zhan Qinglong note, with user-centered technologies, it is important for users to be able to access and use technologies to meet their goals so that they maintain motivation throughout their learning experience [Jingjing and Qinglong 2010, 301–304]. That is, technologies should be meeting users' needs rather than users adapting for technologies to graduate student instructors and undergraduate students, while encouraging them to experiment and utilize what they found to be most applicable to their educational goals. Rather than — although more often, in addition to — producing traditional final research papers, graduate and undergraduate students affiliated with the "Mapping" course learned to use platforms like Google Docs, YouTube, Google Maps, Maps Marker, Adobe Illustrator, CartoDB, OpenStreetMap, TikiToki, and WordPress to present what they had learned throughout the semester in courses ranging from "Chemistry 201" to "Greek and Latin Roots of English." These various digital tools that students learned to use for their "Mapping" projects illustrate their wide range of digital literacies and diverse modes of creative expression.

The WordPress platform allows users to modify their course and personal sites by selecting themes, and we enabled plugins for more advanced users to customize CSS, while still allowing modifications through simple button-clicking if that is preferred. Flanagan and Greenblatt found that these efforts are heading in the right direction: by analyzing student interviews and surveys they determined that the site was primarily used for "communication, collaboration, and learning with peers" [Flanagan 2015, 12]. While all of the undergraduate courses were represented online, the instructors who incentivized student participation (through, for example, mandatory blog posts for participation credit) predictably had more user interaction, suggesting that more can be done to structure engagement outside of instructor-driven requirements.

bell hooks was a key pedagogical theorist for the graduate students in "Mapping," and her work influenced our design decisions as well. As hooks argues, liberatory education that challenges an imperialist, capitalist, white supremacist, hetero-patriarchy "or any ideology" requires the creation of a community in which students feel supported and empowered "to open their minds, to engage in rigorous study and to think critically" [hooks 2003, xiii]. In an effort to foster community-building across the Futures Initiative network, we included a customized automatic join feature in the WordPress hooks.php file (a file for developers to add their own code, no relation to bell hooks) to enroll all new users in a site-wide group that they could later opt out of if desired. Currently, users are connected to the "Welcome!" group, through which we circulate information about workshops and events related to student-centered pedagogy and institutional change, and invite site users to participate in our multi-year "University Worth Fighting For" initiative. Automatically enrolling users into these groups is a way for us to digitally wave "hello" to users and to connect them immediately with the greater network by giving each user a platform within the "Welcome!" group forum to write and respond to others. Flanagan and Greenblatt found that these initial efforts to build community were successful, explaining, "The blog was an important aspect of the undergraduates["] experiences since it created a stronger sense of a community at ... CUNY campuses made up mostly of commuters" [Flanagan 2015, 11].

The look and feel of futuresinitiative.org and user-friendliness of the design have been significant factors in ensuring that our site encourages interaction, exploration, and community-building. Our site is the direct result of user-producers who engage with it through content creation, illustrating, as David Gallula and Ariel J. Frank have found, that Web 2.0's emphasis on user-generated content and usability can help facilitate "collaborative/peer/social learning" [Gallula 2009, 229]. To foster this user-driven content, we have considered the overall design of the site, and have opted for a bright aesthetic with clean and flat lines that is intuitive to navigate. By incorporating blank negative space throughout our site's design, we provide a relaxed space for users while also allowing them to creatively project onto the negative space, further encouraging user participation (see, e.g. [Zong et al. 2008, 930]).

As a digital humanities project built with the community that uses and continues to expand on it, CBOX as a platform and tool offers a more user-driven approach than other open-source and especially proprietary educational content management systems that are built by developers and technologists rather than teachers and students themselves.

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CBOX is a project that comes out of the CUNY community of teachers and students that are using it, and also contributes code upstream to the greater open-source WordPress community. Through our team's ongoing contributions to our customized version of CBOX and to the greater CBOX network, we can reassess the ideals that are channeled into a broader network through a commitment to code developed by the end users it serves.

# Looking forward

In creating a digital humanities tool and organizing a project stemming from the educational needs and desires of CUNY's diverse student population, we used the insights of humanistic inquiry to inform digital learning spaces at the undergraduate level. The Futures Initiative CBOX tool and its associated mapping project were the beginning of an investigation to find, transform, and develop flexible environments for digital learning alongside innovative classroom practices. As we continue to work together with students to imagine better digital humanities tools, we hope to open this dialogue with other educators interested in building classrooms that incorporate digital humanities methodologies and techniques.

There are quite a few items we would like to address in the years ahead to further our mission of advancing equity and innovation in higher education. Flanagan and Greenblatt's research found that graduate student instructors wanted "special workshops dedicated to mapping software and the CBOX [site]" [Flanagan 2015, 7]. While we have provided one-on-one support in person and via email, there is the possibility to offer extended workshops with fellows and administrators in our group, or else to liaise with other digital initiatives at the Graduate Center to offer specialized instruction. This kind of support may help users to be less dependent on one-on-one help later in the semester, which may make workflows for Futures Initiative Fellows and administrators more consistent over time.

The Futures Initiative quickly developed its own Terms of Use and Privacy Policy, including a Creative Commons Attribution NonCommercial Share Alike 3.0 license to encourage open-access and sharing of materials. However, there is more that can be done to increase transparency, support, and access. Currently, the Futures Initiative site points to the CUNY Academic Commons' FAQs and documentation, though it would be preferable to have our own site-specific FAQs, and perhaps our own documentation as our site evolves over time. To this end, the site's current administrators and developers — FI Fellows Jessica Murray and Michelle Morales — have put together a series of tutorials for building sites on CBOX to encourage self-guided troubleshooting. We plan to use animated GIFs as the primary visual method for explicating use cases (similar to GitHub's Guides), in order to make our FAQs accessible to users who are inexperienced with the WordPress content management system. Additionally, we plan to make our full source code available on GitHub once we have a more stable and more realized Futures Initiative theme.

We also aim to improve the site's accessibility. While the site currently uses the WP Accessibility plugin, which allows users to modify the contrast, grayscale, and text, we are running accessibility reports over the main parent site to make the site more responsive to the needs of users with a wide range of abilities. This will likely include multilingual support (especially in the largely immigrant student community of CUNY), additional keyboard-based controls, text-to-speech support, and a more careful use of alt tags when embedding images.

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While there are many alterations we would like to make in establishing a careful balance between the site's customizability and its ease-of-use, the emergence of a new, recent network site testifies to the success of our first year. Over the summer, thirty-five undergraduates from among the 365 students affiliated with "Mapping" courses applied, were selected, and received a stipend to serve as Futures Initiative Mentors. These were students who had used CBOX in their Futures Initiative courses the previous semester and had contributed to the CUNY Maps of New York. At the end of a two-day intensive mentorship training session, the graduate instructors facilitating the workshop reproduced a version of the pedagogical experiment implemented in "Mapping." After telling the undergraduate peer mentors that they would have two hours to design final projects that would help them mentor other CUNY students in the upcoming academic year, the graduate student mentors and other workshop facilitators left the room, trusting the undergraduate mentors' abilities to collaborate in the production of effective mentorship resources. Upon returning to the workshop, the facilitators found that the undergraduate mentors had abandoned their preliminary plans of creating several projects, and had instead opted to create a mentorship site on the Futures Initiative CBOX platform, one that would serve as a

hub to keep them connected across geographic campus divides, which they would populate with useful information for their peers. Several undergraduate mentors have since taken a lead role in designing this site, creating a private page for mentors to dialogue about the mentoring process, a page for mentees to ask questions, and resource pages for each campus. The fact that undergraduate students from across different campuses and majors, and with varying degrees of digital literacy, felt empowered to design an online space using CBOX testifies to the success of our initial efforts to create a dynamic, accessible online learning community.

Today, the Futures Initiative CBOX site is currently in its fifth semester of use by the greater CUNY community and hosts over 717 users across 18 CUNY campuses. The site is a work–in–progress, but has been serving our needs very well due to it being built upon the familiar platforms of BuddyPress and WordPress. We believe that the site and its student-driven mapping project are scalable to fit the needs of other institutions and courses both nationally and internationally, and that connecting learners across disciplinary and geographical boundaries can enrich educational environments in classrooms, digital spaces, cities, and communities.

# **Building a University Worth Fighting For**

Given that online spaces are an increasingly important location of thinking and learning, it is worth considering how to best develop and provide support for digital learning communities. However, the work that goes into community building is regularly undervalued and underestimated, which can quickly derail well-intentioned efforts to foster learning networks. To address this, we examine key issues related to pedagogical ethics, budgets, time, and organizational labor when building an online community to foster undergraduate learning:

- Consider, regularly consult with, and request feedback from the undergraduate student users. In addition to interpreting relevant data about undergraduate student users, ask for their input and feedback in developing future iterations. Consider having undergraduates help develop the site as a paid internship.
- Have ongoing dialogues with community members about how to balance the benefits of public learning with the need to create caring learning environments, in which undergraduate students can experiment with new ideas without exposure to public scrutiny.
- Treat the online learning community as an opportunity to promote both digital literacy and meta-cognitive learning processes. Ask students how they learn best, and in what ways the online component helps them learn.
- When selecting an online platform to develop into a learning community, assess the amount of labor and skills that each option will require.
  - The CBOX installation described in this article was maintained and developed by the full time Futures Initiative Deputy Director, Katina Rogers, and supported by four part-time Graduate Fellows. In their research, Flanagan and Greenblatt found that the speed with which users received responses to their individual questions was essential for its success.
  - Consider the information technology infrastructure and hosting opportunities available to you within your institution, and whether or not you will be granted server access.
  - If you choose to use a site like CBOX, or a WordPress- or Drupal-based site, it is fairly simple to install, but an IT server administrator available to you would free up some of your or your team's personal resources.
  - The above-mentioned content management systems are shipped with a graphical user interface administrator backend, though if you require more customization and control, a good knowledge of CSS, PHP and server administration would help you work with the source code and server side of the installation.
  - In selecting a platform, consider the needs and skills of the user base. Users who know HTML and CSS can make greater use of creating web-based content in general, and educators may want to offer or organize training sessions for undergraduate students.
  - To maintain a safe and productive online learning space, acknowledge that a certain level of community management will be required, which could add to the labor of individuals and disrupt

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workflows if serious issues occur.

 Consult the "Critical and Creative Precepts for Digital Humanities Projects" included in "An Invitation Towards Social Justice in the Digital Humanities," available via http://criticaldh.roopikarisam.com/

Ever since the late 19th century, when Charles Eliot and a handful of others created the system of modern American research universities we have inherited today, decisions about education have tended to flow from the wealthy, elite schools attended by relatively few students, downwards and outwards to those who teach working-class students, often with minimal resources [Davidson 2017]. Including these very students in the decisions that are made about their education is crucial to their empowerment and sense of agency far beyond the classroom. Drawing on insights from the digital humanities and student-centered pedagogy, the Futures Initiative works to counter institutional and structural inequality not through goodwill, but by building structures for equality. Instead of making decisions "for" undergraduates, we train graduate students across disciplines to work "with" their students in creating their learning and their learning environments, thus engaging the kind of critical, creative, and collaborative participation necessary in the world beyond the classroom. We have found that when undergraduate and graduate students alike are treated as active and dynamic knowledge-producers, each of whom has something to contribute to the scene of teaching and learning, hierarchical relationships of power and knowledge are reconfigured. This, in turn, demands something other than traditional classrooms, practices, modes of assessment, and online learning spaces. Full participation, equitable collaboration, and student-centered learning require and produce different structures and spaces. Through our work on this open-source, community-created, and student-driven online learning platform, we seek to include graduate and undergraduate students in the creation of their learning. By creating environments for equitable participation and successful collaboration among diverse and creative students, we are working to promote social change and redistribute power, starting in the undergraduate classroom. In a climate of educational austerity, we are working to build a university worth fighting for.

#### Notes

[1] Undergraduate students at CUNY have historically inspired educators to move beyond established pedagogical paradigms. In the field of composition and rhetoric, the work of influential scholars such as Mina Shaughnessy and Kenneth M. Bruffee was shaped by their interactions with — and commitments to — students in the CUNY system [Shaughnessy 1977] [Bruffee 1984]. Adrienne Rich's essay "Teaching Language in Open Admissions" illustrates how deeply the poet was influenced by her time teaching in the Search for Education, Elevation, and Knowledge (SEEK) program at City College, alongside educators such as Audre Lorde, Toni Cade Bambara, and June Jordan [Rich 1979]. More recently, Pam Mills and Donna McGregor have begun to redefine how students study chemistry by flipping the lecture classroom and teaching scientific literacy as a social justice issue [Mills and McGregor 2013]. The recent graduate–student run conferences on Feminist Pedagogy and Purposeful Pedagogy at the Graduate Center have helped ensure that justice and equity remain a vital part of CUNY's intellectual mission.

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