RADICAL TEACHER

A SOCIALIST. FEMINIST. AND ANTI-RACIST JOURNAL ON THE THEORY AND PRACTICE OF TEACHING

Disrupting Data: Developing Technology Integrated Assignments to Teach about Race and Racism

by Vanessa Rosa and Caro Pinto



"WATER" BY ERIK RUIN VIA JUSTSEEDS.ORG

"Professors cannot empower students to embrace diversities of experience, standpoint, behavior, or style if our training has disempowered us, socialised us to cope effectively only with a single mode of interaction based on middle-class values."

-bell hooks "confronting class" Teaching to Transgress, p. 187

"Authority Is Constructed and Contextual: Information resources reflect their creators' expertise and credibility, and are evaluated based on the information need and the context in which the information will be used. Authority is constructed in that various communities may recognize different types of authority. It is contextual in that the information need may help to determine the level of authority required."

- Framework for Information Literacy for Higher Education, Association of College & Research Libraries

Introduction

Developing assignments that move beyond traditional writing-based course requirements can create opportunities to meet a multiplicity of learning needs as well as creative ways to engage with course themes. Drawing on the lineage of liberatory pedagogy and critical information literacy, we (Vanessa Rosa, Assistant Professor of Latinx Studies and Caro Pinto, Research Librarian) created the Disrupting Data Project-an assignment where students visualizations to explore key course themes. We constructed the project to offer an opportunity for students to center their own expertise and embodied knowledge in a 200-level course, Race, Racism, and Power. While teaching about race and inequality in higher education can be a challenging endeavor, Disrupting Data allowed us to encourage students to think critically about the role of "data" in the history of race science. The assignment also helped students question the perceived value of data science, data visualization, and data-driven decision making, to challenge the notion that data is neutral or objective and in turn disrupt the privileging of European positivist frameworks. In addition to empowering students to see themselves as a part of knowledge production in the classroom, the project also allowed us to model sustainable collaboration to students and to our colleagues on the Mount Holyoke College campus. The purpose of this article is to share our approach to creating and sustaining an assignment that centers collaboration (between us and between students) and can serve as a starting point to consider how technology-based assignments can facilitate achieving learning objectives.

Who We Are

We are a librarian and a faculty member in Latina/o/x studies at Mount Holyoke College, a gender diverse women's college that centers dynamic and student-centered learning. The College nourishes a strong culture of innovation in its pedagogy; faculty have the resources to collaborate with

centers across campus, the art museum, as well as with librarians and instructional technologists to create technology enhanced assignments and scaffolded research assignments. In this context, there are ample opportunities for faculty, librarians, and technologists to work together to create meaningful learning opportunities for students.

Pinto (the remainder of the essay uses third person for clarity and refers to the authors by their last names) is a Research and Instruction Librarian at Mount Holyoke. She works as a liaison to multiple Departments, including Rosa's home department, Spanish, Latina/o, and Latin American Studies. She has extensive experience as an instructional designer and in digital humanities and is known by faculty for her work on interdisciplinarity and critical information literacy. In addition to her work with students and expanding the library's collection in her subject areas, she provides course-integrated instruction to support information and digital literacies. She embraces a creative and collaborative approach to instructional design. Rosa is an Assistant Professor of Latina/o/x Studies at Mount Holyoke. Her interdisciplinary scholarship examines interinstitutional inequality, with particular focus on urban studies and housing. In her teaching, Rosa creates opportunities for mutual learning between students and faculty and centers student experience in her pedagogy.

Context

Race, Racism, and Power is a 200-level course housed in Latina/o Studies and cross-listed with Gender Studies and Critical Social Thought. Rosa first taught this course in 2015 and has since taught it one time per year. The course generally has between 17-18 students, from across graduation years and majors. Majors include Psychology, Astronomy, Gender Studies, Critical Social Thought, Environmental Studies, Sociology, History, Anthropology, International Relations, Spanish, Urban Studies, and students who have not yet declared a major. The course serves as an interdisciplinary introduction to race and racism in the United States and focuses on structural and institutional racism. The description on the syllabus describes the course as follows:

This course analyzes the concepts of race and racism from an interdisciplinary perspective, with focus on Latinas/os/xs in the United States. We will explore the sociocultural, political, economic, and historical forces that interact with each other in the production of racial categories. In particular, we will focus on racial ideologies and processes of racialization, as well as the relationship between race and ethnicity. The course will examine racial inequality from a historical perspective and investigate how racial categories evolve and form across contexts. This approach will require us to draw connections between micro and macro processes and interactions. We will consider a range of issues and topics including colonialism, systemic and structural racism, immigration, intersectionality, violence, resistance/refusal. The analysis that we develop will ultimately allow us to think rigorously about social inequality and transformation.

RADICAL TEACHER 44

Key Learning Outcomes: at the end of the semester, students will be able to...

- Discuss the meaning of the social construction of race and racism
- Explain the history of race and racism in relation to colonialism
- Describe the different types of racism and racial ideologies
- Define intersectionality and the relationship between race, class, gender, age, sexuality, ability, citizenship, ethnicity, etc.

In the past, Rosa primarily used traditional written forms of evaluation (papers, film reviews, exams, and reflections). She wanted to incorporate a technology-based assignment that gave students another medium to engage with specific arguments in each reading to achieve learning outcomes.

Pinto and Rosa got to know each other through Pinto's position as the Library and Information Technology departmental liaison for Latina/o Studies at Mount Holyoke College. In Pinto's role as a departmental liaison, she assists faculty with book/media acquisitions, technology in the classroom, setting up and managing course Moodle sites, class visits for the library, etc. These types of relationships tend to situate the librarian as a service provider for the faculty member; in other words, it is not designed to be an equitable relationship. They first interacted during the fall of 2015 when Rosa was planning two Skype guest lectures for Rosa's Latinx Urbanism course and Pinto assisted with the setup of the technology in the classroom. Pinto expressed interest in the topic as well as seeing firsthand different ways that technology is used in the classroom, so Rosa invited her to join the class for both Skype lectures. This allowed them to have more informal conversations after class about their interests and to get to know each other on a more personal level. Rosa had recently arrived at Mount Holyoke and was only familiar working as an adjunct instructor at larger institutions, so the role of the liaison was new. Through these interactions, she was able to get a better sense of Pinto's broad areas of expertise and desire to work more closely with faculty and students.

As functional expertise overtook subject expertise as the bedrock of a successful career as a teaching librarian over the last twenty years, subject authority (expertise with particular disciplines) has been devalued. While liaison programs across higher education jettison subject expertise in favor of functional expertise, especially in favor of technology, this collaboration reinforces the importance of subject expertise combined with technical expertise. When Pinto was a hybrid librarian and technologist, she prided herself in the cultivation of both subject expertise and technical expertise; cultivating expertise around specific academic disciplines continues to be the most challenging and most rewarding part of Pinto's role. Reading plays a central role in this process; reading widely across disciplines

and mediums is essential. As Pinto's department unmerged the technologist and librarian roles into two distinct positions, the importance of centering subject expertise as the driving force in pedagogical conversations remains essential to Pinto; technology can be a tool in the classroom as long it does not usurp the energy of the class at the expense of the larger learning goals. Her subject and technology expertise were therefore essential in the Disrupting Data collaboration; the author's modeled to students that authority does not live solely in the faculty member, but alongside peers, librarians, and technologists.

Developing Disrupting Data

Rosa contacted Pinto in November 2016 to express interest in developing a technology-based assignment for one of her classes. They arranged a meeting in December to discuss the possibilities for working together. During the meeting, Rosa described why she wanted to pursue a new technology-based assignment and used the example of a digital timeline that was developed by a colleague. Fresh from learning about an exciting digital scholarship project using Timeline JS, Rosa wanted to explore the possibility of incorporating Timeline JS into her Race, Racism, and Power Class for the spring 2017 semester. In many contexts, a librarian or technologist in Pinto's place might say, 'your wish is my command' or 'this is my not my expertise,' but she was interested in the space between those extremes: how can a timeline project from another campus be used as a starting point to imagine a high impact project on our own campus and for this particular course?

Cultivating these types of relationships requires time and good faith on both sides. As relationships like this one develop, librarians and faculty can build mutual trust and take intellectual risks together. The accrued trust in this relationship allowed Pinto to talk freely about the limits of certain tools, how to consider balancing an innovative project with other established course goals, and clearly articulate the limits of labor she could offer in support of Rosa's vision. The distance between technology use in pedagogy and technology integration is vast; many faculty, librarians, and instructional technologists struggle to realize the goal of integration over use; in many ways it is more art than science and is more responsive than prescriptive. It was a credit to the solid footing in their relationship that Pinto felt comfortable suggesting a new path for this collaboration. Beyond the assumption that 'technology is good,' many faculty may read about a project at another campus or attend a conference session where a particular tool was used and suggest that we integrate it on our own campus. Rarely are questions of labor addressed (where did that custom CSS come from?) or how much expertise is required to use different technologies or software (how easy is SketchUp for a novice?) or which parts of the syllabus could be adjusted to create space for technology. Often, instructional technologists must negotiate with faculty to devise an assignment or conditions that allow for innovative technology within the boundaries of the semester, the experience levels of students, and the technologies available on a given campus. When Rosa approached Pinto with an

RADICALTEACHER 45

idea to pursue a technology-based assignment, they conversed and explored different opportunities to engage.

Rosa described the course and the course objectives to Pinto. Pinto provided feedback on what she heard and suggested the concept of an assignment inspired by "Dear Data" by Georgia Lupi and Stephanie Posavec's *Dear Data* (2016). In *Dear Data*, Lupi and Posavec (2016) explain their year-long exploration of everyday life visualized through data:

Each week, and for a year, we collected and measured a particular type of data about our lives, used this data to make a drawing on a postcard-sized sheet of paper, and then dropped the postcard in an English "postbox" or an American "mailbox (Lupi and Posavec, 2016).

So, for example, one week the authors recorded how many times they encountered a door, goodbyes, laughter, or complaint. They would track their experiences with each theme and then choose a way to visualize it on a postcard. Both authors had different interpretations of their data and how to communicate the data from their everyday life to each other. The illustrations in the book vary from postcard to postcard and week to week. The different visualization styles and the critical understanding of what constitutes data, interrogating how we communicate different types of data, and questioning and exploring how visualizations impact our interpretation were foundational questions for conceptualizing how to employ Dear Data as a framework for the assignment. Rosa and Pinto drew from the author's insights on different conceptualizations of data to implore students to consider the role of data in race science and processes of racialization as well as how reimagining what constitutes data and how we represent data can facilitate deeper engagement and give students the tools to understand the many ways racism is produced and reproduced in our society.

Important in the preliminary project planning conversations was Pinto's clear understanding of the course content and objectives. She was careful to express the challenges with technology-based assignments and ensure Rosa calibrated her expectations. Pinto explained the Dear Data concept and clearly articulated two key aspects of the project in relation to this class: 1. That it would allow students to use Dear Data to visually conceptualize the key course concepts; and 2. That it would allow students to critically engage with course content about the relationship between knowledge production and race.

Looking at the syllabus, Rosa expressed her learning goals to have her students consider the relationship between race and knowledge production. As an ardent fan of the Association of College and Research Libraries Framework for Information Literacy framework, Pinto realized that the Dear Data project could be a way to explore how we understand and process readings about knowledge production and the social construction of race:

I came across a post in Brain Pickings about *Dear Data* (Lupi and Posavec, 2016) that piqued my interest. Data, data visualizations, and data fluencies represent emerging facets of academic libraries and the project was an opportunity to learn about data. When Princeton

Architectural Press released the Dear Data project in monograph form, I immediately purchased it for our library, pouring through it to gain a foothold to consider questions about how drawings and symbols can be as powerful as numbers or graphs. I knew that this project and framework would inform my teaching when the right opportunity arose. Happily, when Rosa and I met at the end of the fall term in 2016 to talk about collaborations for the spring, the right opportunity emerged." -Caro Pinto, Research Librarian, Mount Holyoke College

Because of Pinto's subject expertise and her instructional design background, she quickly made a strong case for Dear Data and it was clear that this would be a great starting point for exploring technology based assignments in Race, Racism, and Power. Pinto suggested building a WordPress website where students would upload their assignments. Rosa had experience working with WordPress in the past, so this was an appealing suggestion that would not require her to learn how to use new software. A paid student technology mentor would build the site under Pinto's supervision.

Rosa was attentive to Pinto's critical articulation about the role of data and visualizations in scientific racism. In the course, students learn about the history of race and racism in the United States, racism as a justification for colonialism and enslavement, and the centrality of scientific explanations of racial difference to justify white supremacy. So, for example, students critically interrogate racist scientific "evidence" that posited race as biological and therefore measurable. Pamphlets and documentation that highlighted visualizations of skull size and other physical features were central to constructing ideologies around racial superiority and racial inferiority as a justification for enslavement and eugenicist practices and policies. Through the assignment, students were encouraged to rethink traditional ideas of what is considered data. This framing of the assignment encouraged students to develop and employ critical thinking skills to engage with the course readings. Therefore, students not only cultivated critical thinking and close reading skills to reinterpret the texts or concepts visually, but also were able to reconsider what is considered as objective evidence or data versus what is not. By questioning science's insistence on objective reasoning, students examined the possibilities of social scientific and humanistic inquiry and analysis. The critical framing of the assignment was central to facilitating understanding of both the historical constructedness of race and racial categories, and simultaneously, the real material impacts of racism.

Integrating Disrupting Data into the course

Rosa and Pinto established a schedule prior to the beginning of the semester that outlined specific dates in the semester where Pinto would attend class to meet with students. It was important to them to make sure students saw both Rosa and Pinto as resources as they navigated this new learning framework. In the first class of the semester, they co-introduced the project to students. Rosa described

the logistics of the assignment: what students were required to do, how it would work, and the learning objectives (see Appendix 1 for assignment guidelines in syllabus). She explained to students that they would be required to make a series of blog posts on WordPress that visualized a specific aspect of the assigned reading. Each visualization would require students to think critically about the "data" in the reading. In student responses on WordPress, they could pull out statistics, demographic information, or visualize theoretical concepts (see Figure 1 and 2 for examples). Pinto described the technological aspects of the assignment and demonstrated how to upload the assignment. She also made a sample Dear Data entry on whiteness and race so that students had a sense of what was being asked of them. Pinto provided students with her email so that students could be in contact with her regarding any technological questions. Students were asked to sign-up for three Dear Data posts over the course of the semester. Students signed-up for their posts in the second class and began posting for the readings for the third class.

At the beginning of the third, fourth, and fifth class meeting, Rosa took five minutes at the beginning of class to answer any questions about the assignment. She also opened the Dear Data WordPress dashboard and showed students how to upload their posts again. This proved to be a very important review for many students who were still confused about how to use WordPress.

They also built in two Dear Data check-ins throughout the semester and added them to the syllabus so that students knew to expect facilitated discussions and group reflections about the project. Pinto came to class and facilitated the discussion with students. Having Pinto facilitate and engage with students at key moments throughout the semester was crucial to emphasize her role as a collaborator in the assignment and also allowed Rosa to participate in the discussion as a co-learner with students. The shifting of roles, ongoing reflection, and amplification of Pinto's expertise elevated the impact of the assignment. During check-ins, Pinto invited the class to look closely at several Dear Data entries and also talk about any challenges or issues students were having. Intentionally planning moments to pause and reflect about both the logistics of the assignment and the objectives allowed students to see in practice how collaboration (between Rosa and Pinto) can be employed as a pedagogical strategy and how it can be a tool for disrupting top-down educational models and hierarchies in higher education (between faculty and staff and between faculty/staff and students).

Additionally, during the group check-ins and project reflections, students worked together in two groups to write the text for the homepage of the Dear Data website. Two students worked as the group facilitators and one student was the notetaker (she typed the google doc with the notes from the class on the projector) (Figure 3). Students collaboratively wrote the goals and objectives for the

Inequality in Homeownership

Classi

To create this image, I pulled some of the most striking figures about black homeownership from the chapter and superimposed them on a photo that shows a nonwhite hand at a gate (signifying a barrier or a lack of access to whatever lies on the other side). I intended to illustrate the effects of those statistics on people. It is one thing to read numbers on a textbook page, it is another to see someone physically encountering a boundary constructed by the wealth disparity.



Discussion question: How would the statistics represented on this image have to change in order to demonstrate a significant change in the black-white wealth disparity in the United States? Would a change in statistics actually represent a change in the lives of members of marginalized communities affected by wealth disparity? Why or why not?

+

FIGURE 1. SAMPLE STUDENT POST (BY LUCY JAMES-OLSON) ON THE COURSE DISRUPTING DATA WORDPRESS SITE, SPRING 2020.

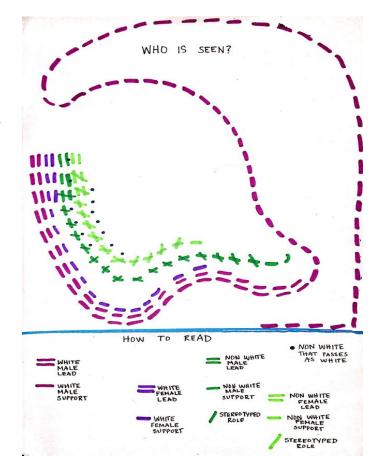


FIGURE 2. SAMPLE STUDENT POST (BY ELIZABETH DELORME) ON THE COURSE DISRUPTING DATA WORDPRESS SITE, FALL 2017.

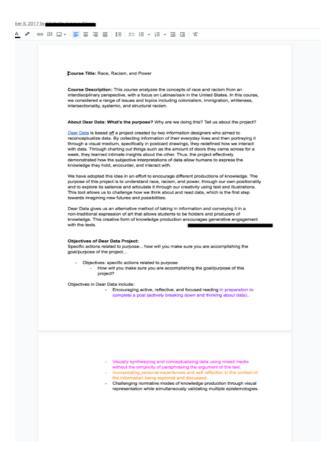


FIGURE 3. STUDENTS WORKED TOGETHER IN GOOGLE DOCS TO COWRITE THE TEXT FOR THE HOMEPAGE OF THE CLASS WORDPRESS SITE. FALL 2017.

assignment on the homepage of the WordPress site (Figure 4). This was a transformative experience for the class and added another layer to the collaborative aspects of the project. While students worked individually on their blog posts, they were able to co-write the website homepage based on their experiences with and knowledge of the project. This was another opportunity for students to center their voices in the classroom.

Similarly, in spring 2020, students worked in twogroups to write descriptions of the project. Students in group 1 brainstormed the following:

- Effectively disrupts traditional structures of knowledge production by prompting students to critically interpret course materials through creative visualizations
- Students regaining agency over the way that they learn
- Collaborative
- Allows students to work without restrictions which also changes the way we engage with / approach materials
- Personal introspection // Personal GROWTH
- Array of interpretations of the text no two are the same

- Freedom of creativity and analysis
- Caters to different learning methods
- Adaptable to different learning styles
- FUN

Here, students reflected on the various aspects of the assignment. Although students constructed each post on their own, they center the collaborative nature of the assignment (learning from each other). They also highlight how the assignment allowed them to creatively engage with the materials and interpret the readings from their own perspective.

Evaluation

From the outset, Pinto and Rosa discussed how to evaluate the process and project. While Rosa conducts midsemester evaluations for all of her classes, in Race, Racism, and Power, students were able to anonymously comment on or express concerns specifically about Dear Data early in the semester. The Dear Data check-in classes also served as an opportunity for group informal evaluation and reflection. Pinto also attended the last class of the semester and facilitated a Dear Data debrief with students. As a final project evaluation, they worked together to develop an end of semester anonymous evaluation for the assignment in addition to the formal evaluations required for all courses. Pinto wrote the first draft and Rosa revised it. Using a google form with anonymous responses, the author's asked students the following questions:

- Name, Major, Graduation Year (Optional)
- How familiar with WordPress were you before this project?
- Do you prefer creative assignments over papers?
- What has been the most challenging part of this assignment?
- Has this project impacted your learning/engagement in other classes?
- If you answered yes to the above, how has the project impacted your learning/engagement in other classes?
- What did you learn from participating in the Dear Data Project?

SEPTEMBER EIGHTEENTH	SEPTEMBER TWENTIETH	SEPTEMBER TWENTYFIFTH ¥	OCTOBER SECOND OCT	OBER FOURTH OCTOBE	R SIXTEENTH OCTOBER EX	SHTEENTH
OCTOBER TWENTYTHIRD	OCTOBER TWENTYFIFTH	OCTOBER THIRTIETH NOV	EMBER FIRST NOVEMBER SO	KTH NOVEMBER EIGHTE	NOVEMBER THIRTEENTH	
NOVEMBER FIFTEENTH	NOVEMBER TWENTIETH	NOVEMBER TWENTYSEVENTH	NOVEMBER TWENTYNNETH	DECEMBER FOURTH	DECEMBER SIXTH FINAL I	MAX

The Dear Data Project

About This Project

Latina/o Studies agoRP-ox. Fall 2017

Course Titler Race, Racism, and Power

Course Description: This course analyzes the concepts of see and racism from an interdisciplinary personation. with first not all interviews of interviews to the concepts of see and racism from an interdisciplinary personation. with first not all interviews of interviews was considered a range of

FIGURE 4. WORDPRESS DEAR DATA HOMEPAGE, 2018.

- How did your visualizations change or shift during the semester?
- If you were to chat with someone taking this class next term, what would you want them to know about participating in the Dear Data Project?
- What was something about this project that could be altered to improve the Project experience?

There were many important reflections from students about the assignment. One key response was that students reported that Dear Data impacted their learning in other courses: 60 percent of students responded that the project positively impacted their learning/engagement in other classes. Students were given the opportunity to explain their response:

"I've learned to contextualize in a different manner. Since all of my classes are reading intensive, learning another way to analyze readings has been very helpful."

"I have tried Dear Data notes for readings in other classes."

"It has helped me visualize facts and data and be able to explain it to others in ways that we both understand. Visual representation also aids in making connections to other readings and information."

"I have a class that is called Problems in Global Ethics so a lot of the concepts and materials I learned from my peers' Dear Data Assignments I incorporate into this class and it really helps a lot because there are a lot of similarities in these two classes."

Another key reflection was that students reported that Dear Data impacted the way they read the course materials and their analytical engagement with the readings. For example, students wrote:

"I appreciated that this assignment allowed me to demonstrate what I got out of the readings in a visual form. I was able to engage with the readings in a deeper level and outline the main argument/points."

"I've learned the power of visualization vs. writing notes."

"It has helped me to think more deeply about the readings and information that I have been learning about."

In response to the question, "What did you learn from participating in the Dear Data Project?", students responded,

"I came to understand the concepts I did a Dear Data entry on much deeper level than any of the other readings. I was also struck by the difference in interpretation of the materials, not in the message drawn from the reading, but the way people visualized it. Specifically, the connections they would make that I wouldn't, the context they would place it in, and places where I saw connections that they didn't. The subjectivity of our experiences of the readings was really underscored as it was the inspiration for this project."

"Drawing visuals to represent readings really helped me try to focus on what the reading was saying as a whole and to find the key points of it."

"I think I learned the most from seeing other people's Dear Data interpretations. People did really interesting things that I wouldn't have thought of."

Overall, students reported a positive experience with the project. In response to the question, "If you were to chat with someone taking this class next term, what would you want them to know about participating in the Dear Data Project?"

"It's the best thing ever! It's valuable in synthesizing the readings, and more fun than just writing responses. It turns the class into a collaborative space which is open to new ideas and ways of learning."

"Dear Data is amazing! It's a great hands-on way to engage with the text, communicate with others in the classroom, and personalize the readings. It is also a way to sort out what you are thinking and discover questions you might have."

"It is going to be fun and spoil you for readings in other classes. Sometimes I will read something for another class and think to myself that I wish I could do a Dear Data entry on this. I would encourage people to make time to really do their entries well because you can get much out of it and do an effective entry given time and heavy thought. Artistic skill is by no means necessary. It is all about the concepts and how you see them."

Additionally, in the formal College course evaluations, students commented specifically about how the assignment impacted their understanding of race and racism. Students wrote:

"I learned a great deal about racial conditions and racial justice; I thought that I was already educated on these topics as I try to stay aware of current and past events, but I genuinely feel enlightened now that the semester is coming to a close."

"I liked that as the semester progressed we used our own questions and our own dear data posts to start discussions. It helped expand the range of topics we were able to cover and helped clarify anything we were confused about."

"I felt like the students learned a lot from each other which gave us agency in the classroom. Overall, the structure of this class is different from others I've taken at Mount Holyoke College, and I'm very happy about that. It's not the traditional format of learning through lectures and taking exams/writing papers which helped me understand that learning can be done through various avenues."

"We used great tools in the class to further the ideals of challenging pedagogy and hegemony, most notably the "Dear Data Project" where we as students were challenged to create a visual piece and discussion question or each week's reading. By using a creative outlet rather than a traditional writing response, students were able to represent a diverse range of responses in a manner much more approachable format. As a first-year, this was especially appealing. As I was trying to navigate how to write a college paper in other classes and questioning my ability to do so, I was able to use skills like collage creation and digital art in Professor Rosa's class-- things I am much more well-versed in and comfortable with."

"The readings reflected the concepts well and the Dear Data Project allowed us to really dissect those concepts. There weren't many written assignments which I personally prefer. Dear Data allowed me every week to really reflect on the content and so did the discussions in class."

In the formal course evaluations, students reflected on the relationship between Disrupting/Dear Data and their own learning about race, racism, and power. Students expressed an appreciation for assignments that were not a formal paper and also that the assignment allowed them to dive deeper into specific concepts.

Based on student feedback, one significant change was implemented was how the assignment was incorporated into the class. While the first time they used Dear Data in spring 2017, students were only required to complete three posts during the semester, in fall 2017, students posted on the Wordpress site one time per week (for a total of 9 posts during the semester). Students commented that the assignment was transformative for their learning and that they would have liked it to be used for weekly discussions in class and worth a higher percentage of their grade (because of the amount of time they put into developing each post). Because of students' suggestions to make the assignment a more central part of the course, Rosa also restructured class time where class would begin with students working in small groups and discussing each other's visualizations. After working in small groups, the class would come back together and discuss the posts and key concepts as a larger group. Rosa would end the class by emphasizing the key takeaways from the readings and the Dear Data blog posts to ensure the learning objectives for each class meeting were met. This approach both generated a collaborative classroom dynamic where students deeply engaged with one another's disrupting data posts and also supported neurodiversity in the classroom.

After incorporating the assignment into the course three times, Rosa consulted with Pinto to make another significant change and revised the name from Dear Data to Disrupting Data to better capture the goals of the assignment. Given the role of data science in the production and reproduction of race and racism, the title "Disrupting Data" more precisely captured the need to challenge, question, and critique the perceived objectivity of positivist representations of data.

Conclusion

While the outcomes from this assignment index the impact on student learning, this reflection centers the collaborative development process, different possibilities for engaging with students about the histories of race and

racism, as well as the importance of creating and supporting collaborative learning spaces. Cultivating mutually supportive relationships that benefit faculty and librarians can enhance student learning. It also models to students that there are many "experts" on campuses and outside of the classroom-including in library and technology departments. Pinto also asserts that collegial and respectful collaborations make librarian and technologist working conditions better and move away from positioning librarians as staff who provide services to faculty and students-and instead positions librarians as crucial resources on campus. The bridging of ideas and expertise across campuses and between faculty, librarians, and students can be transformative for campus communities and student learning. Opening up classrooms and syllabi in ways that promote collaboration-in planning, implementation, and evaluation, including using student feedback to improve the assignment for future classes. These are some of the ways that equitable and collaborative partnerships can decenter hierarchies, particularly between faculty and staff, that often dominate learning environments in higher education.

Much can be gained for both students and the teachers to bring in other experts and introduce students to collaborative teaching models. While professors are generally the sole authority in the classroom in traditional higher education contexts, and, unless co-teaching, hosting a guest lecture, or being supervised for a teaching review, they might have limited need to share instruction or open the classroom to peers. For the Disrupting Data assignment, close collaboration in the classroom was not something Pinto and Rosa extensively discussed prior to the first class meeting; it was nurtured before the first class and developed organically during the process. One key reason for this was because of Pinto's technology expertise and her skills in project management and instructional design. This was something she brought to the project and was a welcomed asset. As such, during classes where Pinto attended, she led discussion and answered questions as a co-instructor and co-facilitator modeling collaborative instruction in the classroom. This dynamic decenters the traditional power dynamics that one often encounters in American higher education where the professor is the sole authority in the classroom. While acknowledging the power dynamic between a professor and librarian, Pinto was able to point to their relationship with Rosa when seeking to build other collaborations across campus. This gave Pinto more agency to promote her expertise, protect her time, and experience better working conditions.

Finally, courses about race and racism can be challenging for both instructors and students. It can also be liberating and offer students the tools and vocabulary to understand our social worlds and give order to their experiences. This assignment allowed students to grapple with multiple layers of course content by simultaneously troubling how we conceptualize data while also visualizing concepts like intersectionality, institutional racism, or the school-to-prison-pipeline. Giving students the space and creative outlet to engage with course concepts allowed for deeper classroom discussion and overall better understanding of the course concepts. Digital based assignments also give students the opportunity to grapple

with what they are learning through other forms of creative expression beyond written reading responses and essays.

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(http://www.ala.org/acrl/standards/ilframework)

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Notes

This document was updated on June 14, 2023 to correct minor typographical errors.

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Appendix A: Assignment Guidelines

Spring 2017 syllabus

Dear Data: Details to be discussed on the first day of class. Dear Data (the book) is on reserve at the library.

Dear Data entries are assigned to encourage students to engage with the readings through visual/artistic reflection and representation. How can we visually represent the ideas/concepts/theories we learn in class/in the readings? What images, words, pictures help express/represent the content of the readings? You can use drawings (markers/crayons/colored pencils and sketch paper), drawing apps on your phone, video, concept mapping, collages, etc. You can choose your creative medium, however, if it is not listed above, please confirm your medium with me. Also, your representation must be able to be uploaded to the class Wordpress site. Each entry must include a title and 1-2 sentence description.

You are required to do three Dear Data entries over the course of the semester. You will sign up for your entry date on January 31st in class. You must upload three Dear Data entries to the class WordPress Site on your assigned dates.

Additional information on Dear Data, including the login information for the website, is available on Moodle.

Fall 2017 syllabus

Dear Data: Details to be discussed on the first day of class.

Dear Data entries are assigned to encourage students to engage with the readings through visual/artistic reflection and representation. How can we visually represent the ideas/concepts/theories we learn in class and in the readings? You can use drawings (markers/crayons/colored pencils and sketch paper), drawing apps on your phone, video, concept mapping, collages, etc. You can choose your creative medium, however, if it is not listed above, please confirm your medium with me. Also, your representation must be able to be uploaded to the class WordPress site. Each entry must include a title, a 1-2 sentence description, and a discussion question. Please upload your entry by 9 pm the night before class.

You must upload nine Dear Data entries to the class WordPress Site on your assigned dates. Students with last names A-M will post on Sunday night and students with last names N-Z will post on Tuesday night (the night before class). The first day of posts will be September 20th. Each post is worth 5%.

Additional information on Dear Data, including the login information for the website, is available on Moodle. *Dear Data* (the book) is on reserve at the library.

For technical questions about Dear Data please email Pinto

Spring 2020 syllabus

Disrupting Data: Details to be discussed on the first day of class. Dear Data (the book) is on reserve at the library.

Disrupting Data entries are assigned to encourage students to engage with the readings through visual/artistic reflection and representation. How can we visually represent the ideas/concepts/theories we learn in class and in the readings? What

images, words, pictures help express/represent the content of the readings? You can use drawings (markers/crayons/colored pencils and sketch paper), drawing apps on your phone, video, concept mapping, collages, etc. You can choose your creative medium, however, if it is not listed above, please confirm your medium with me. Also, your representation must be able to be uploaded to the class WordPress site. Each entry must include a title, a 1-2 sentence description, and a discussion question.

Students are required to make nine DD posts during the semester on your assigned day. Please upload your post to the class WordPress site by 8 am on the morning of class.

Last names A-K-post on Mondays

Last names L-Z -post on Wednesdays

Each post is worth 5%. The rubric for grading can be found on Moodle.

Additional instructions will be discussed in class on January 22 and 27.

For technical questions about Dear Data please email Pinto

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53 **RADICALTEACHER** No. 125 (Spring 2023) DOI 10.5195/rt.2023.972