

Narrative Report for
NVF-PITUN-University of Chicago-Subgrant-009285-2019-10-15

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April 28, 2022

1. Summary of key findings/results

We created a syllabus for a course integrating data science and social science perspectives on public interest technology. We taught the course to graduate students from multiple disciplines at The University of Chicago. As part of the process, we also gathered related syllabi from other PIT-UN institutions; generated an annotated bibliography, and developed classroom exercises and assignments. All of these materials are available to other PIT-UN institutions, and the course itself is portable. Our original proposal included the possibility of developing a book prospectus based on the course. Ultimately, the process of developing the course and reviewing a broad range of related literature led us to believe that more work would be needed before we would be ready to consider a book prospectus.

2. Background and Problem Definition

a. What was the project's main objective?

Our objective was to develop a course that integrates social science and data science perspectives on public interest technology, and to explore the viability of writing an introductory book on this topic that could be used in similar courses.

b. What was the initial problem you wanted to solve?

Students wishing to enter the field of PIT can take courses in any one of these disciplines, but few courses exist, either at the University of Chicago or within the PIT-UN, that explicitly compare and integrate different disciplinary perspectives. As a result, students generally are left on their own to understand how to bring together the multiple analytical tools and paradigms they encounter in PIT-related coursework across traditional disciplines.

c. Who/what are other individuals or institutions working on similar projects?

In the course of our work, we identified several related courses at other institutions. Those syllabi are included as an attachment.

d. Did you work with other teams or institutions as partners? If yes, how?

We did not work directly with other teams or institutions, but we were informed and inspired by the related courses we identified at other institutions.

e. How did you define diversity, equity and inclusion with respect to your work?

The course was centrally concerned with how public interest technology might be inequality-enhancing, rather than inequality-reducing. Each section of the course included specific concepts and questions related to diversity, equity, and inclusion.

3. Development

a. How did you first approach the project?

The PIT-UN opportunity provided a bridge to collaboration for the project principal investigators, who had not previously known each other. Both of us had been somewhat skeptical of the rush to using “big data” for policy and practice applications, and the project offered a way for us to take a broad look at these issues and attempt to systematize an analysis of the strengths and limitations of the approach. We already knew that a wide variety of disciplines were starting to produce scholarship at the intersection of data science and public policy, but neither of us had previously had time to scope or assess this rapidly growing literature. We aimed to produce a comprehensive bibliography, a course syllabus, and, potentially, a prospectus for an introductory book on this topic. We hired a PhD student as a research assistant for this task.

i. What were the intended methods and processes you wanted to use?

To collect, organize, and synthesize existing literature at the intersection of data science and social science, we began by generating an initial list of relevant topic areas, including quantification, datafication, data production, methods, algorithms, ethics, regulation, open data, data-driven governance, data epistemologies, and public policy problem framing. We then worked with our research assistant to locate and review literature in these areas. We used Zotero bibliographic software to collaborate on building our bibliography, including making notes on our initial readings of the work. We also planned to work together to create a ten-week course syllabus with readings, lecture topics, and in-class exercises.

b. What changes did you make to the project?

As we explored the literature on our initial list of topic areas, we found there was even more than we had anticipated. Due to the confined scope of the ten-week quarter in which we would be teaching the course, we were forced to

do some significant prioritization of topics. We wanted to make sure we had enough time to explore what we felt were the most important and well-developed areas, which meant leaving some of our original topics out. We also discovered that our own interests in the general topics diverged more than we had anticipated, which made it difficult to integrate the more technical concerns about methods, algorithms, and policy recommendations with the more critical concerns about data production, public policy problem framing, and policy implementation. As a result of the latter, we decided that the book project did not make sense as originally imagined, and declined to write the book prospectus.

c. How did you evaluate the success of the project?

We evaluated the project based on student enrollment (successful); student evaluations (mixed success); and the intellectual discussion between us (mixed success).

d. What are the next steps in your project and how would you scale it, if possible?

We plan to share the course syllabus as well as our notes on lecture topics and in-class exercises with other institutions, so that it can be adapted for local contexts. As noted above, we do not think the current iteration of the course would make for an intellectually integrated book for use as an introductory text.

[REDACTED]

NA.

5. Lessons learned

a. How would you summarize your insights?

Interdisciplinary work is very difficult, particularly when trying to truly *integrate* the insights of different approaches, rather than simply presenting them alongside one another. Our particular challenge was about bridging the technical/methodological material to the critical material, and that challenge showed itself in the selection of course topics, the choice of readings, and the diverse knowledge backgrounds of enrolled students. We recognized that one of us was more interested in social science *and* data science, while the other was more interested in a social science *of* data

science. We think there still might be a book to write about this integration, but the project did not allow us sufficient time to develop the key insights that would drive a book project.

b. What specific advice would you offer to other members concerning this project?

We think we might have been able to make more progress on the intellectual integration of the technical and critical perspectives if the course had not been offered to professional degree students (in our case, mostly master's in public policy students). Our ambition might have been better suited to a PhD seminar in the social sciences, where students have more intellectual designs, as well as an interest in pushing forward new perspectives. We might also have had more success in offering this course at the undergraduate level, at least at the University of Chicago, where undergraduates aim to grapple with big ideas.

c. What specific changes at a departmental or institutional level would have made your project more effective or impactful?

None. Our respective schools were very supportive of us teaching the course, allowing us to each count the course as a full course credit towards our teaching load. This is a necessity to incentivize this kind of collaborative, interdisciplinary teaching in emerging areas.

6. Possibilities to replicate

a. How can other members replicate the project, or part of the project?

Other PIT-UN members can draw on our syllabus, bibliography, and in-class lecture/exercise materials as a starting point for replication. Other institutions that use the Canvas course software could directly import our Canvas course. We are also happy to discuss further insights with anyone interested in the syllabus.

b. What considerations should other members have when approaching your challenges?

Other members should carefully consider what type of student is best-suited for a course that has this kind of "Frontiers" ambition. That is, when trying to teach a course that charts new intellectual ground in the space between technical, social, and critical, who is the right student audience?

c. How can the Network support opportunities to replicate your project's success?

The Network should continue to support scholars who are working at the intersection of technical/methodological and social/critical, especially doctoral students and early-career scholars who may be best positioned to break new ground. It also would be useful if the Network would circulate the syllabus and lessons learned to instructors at other institutions.

7. General Information

a. Who can be contacted to get more information?

The two principal investigators, Christopher Berry and Nicole Marwell.

B. What is the current state of the project?

The project has been completed.

8. Annexes & Publications

a. Please attach copies of any media or publications regarding this project.

Attachments include the course syllabus and course planning guide, which details learning goals, lecture content, class exercises, and assignments.

B. Please attach copies of any materials developed as outcomes for your project including links to where materials may be stored.

We have electronic materials that we are happy to share. These includes the course Canvas site, which could be exported to another institution by request. The Canvas site includes all readings, recorded lectures, and assignments, which could be used directly within another institution that uses the Canvas system. In addition, we have a Zotero bibliography created as part of our literature review. This include many readings that were relevant but not selected for the syllabus.