Data and Experience Design: Negotiating Community-Oriented Digital Research with Service-Learning

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INTRODUCTION

In fall 2018 we were students in Dr. Jennifer Bay's Rhetoric of Civic Engagement course. The seminar is a foundational course in service-learning and community engagement theory that introduces the scholarship of engagement via a service-learning project in the local community. Within this course, we partnered with Food Finders Food Bank (FFFB), a local organization that works to alleviate food insecurity among individuals in the local community and counties in north-central Indiana. In the semester-long partnership, four groups of students engaged with the organization to support visitors to the food pantry; the goals of our projects were to help reduce food insecurity, uncover hidden barriers to self-sufficiency, improve the assessment of self-sufficiency and self-efficacy, and foster a safer space for visitors' voices to be heard.

Within this larger context, our team's primary objective was to identify and examine the benefits, drawbacks, and potentials of Link2Feed, FFFB's client tracking software. Link2Feed is a third-party software that has been designed specifically for helping food pantries with client intake by tracking client information and other confidential client data. FFFB has been using Link2Feed for the past three years to maintain records of community members who utilize their services, focusing in particular on data surrounding these individuals' self-sufficiency. Over the course of the semester, we worked closely and developed a relationship with FFFB staff to explore the functionality and usability of the software. By the end of the semester, we were able to find out that there were limitations in the software and provided to FFFB a detailed recommendation report on the uses, benefits, and limitations of using the software.

In this reflective essay, we outline our project, what we learned from our semester-long engagement experience, and how it helped FFFB and the larger community. We discuss the challenges of negotiating the needs of the community partner with usability testing and infrastructural limitations, two concepts that are used more commonly in workplace and technical writing contexts. In addition, we also explore the ways in which doing this kind of work in a service-learning context enhances the ties between community, data, and knowledge via digital technologies. In discussing these negotiations, we also reflect on the overall process of conducting a semester-long service-learning/community engagement project,
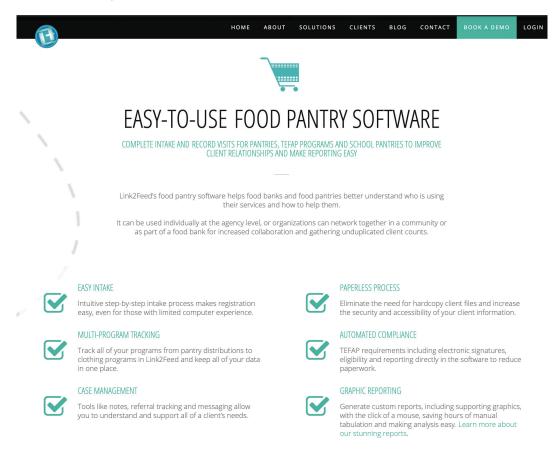
both in terms of impact on the community and impact on ourselves as students.

BACKGROUND

In this section, we will provide a brief background of our community partner, the Rhetoric of Civic Engagement Class, and our project on Link2Feed.

Food Finders Food Bank (FFFB) has been working in Tippecanoe County, Indiana, since 1981 (Food Finders Food Bank, 2019). Currently, FFFB serves Tippecanoe and an additional 15 surrounding counties by providing food to member agencies, advocating for food insecure populations, and educating the public about hunger-related issues. FFFB has distributed more than 9 million pounds of food to a network of nonprofit organizations that work to alleviate hunger throughout North Central Indiana. FFFB operates a food pantry in downtown Lafayette that is available to all low-income people in the area. In addition to the pantry, FFFB also offers assistance to the clients in overcoming the barriers of food security and self-sufficiency.

Dr. Bay's Rhetoric of Civic Engagement graduate seminar provides a foundation in service-learning and community engagement theory by introducing students to the scholarship of engagement and engaging in a service-learning project in the local community. Some students take the course because they are interested in or planning to teach service-learning courses in the future; other students take the course because they are interested in the rhetoric of community engagement. Students work with a variety of local not-for-profits to volunteer, provide research studies, or produce deliverables that rely on the expertise of the students in the class. In fall 2018, students worked with FFFB to develop a variety of assessment measures for visitors to their food pantry, measures that ranged from self-efficacy scales to a secret box in which visitors could provide anonymous feedback. Our class was divided into four different groups that took over one particular aspect of the larger project of developing different assessment measures: surveying self-sufficiency and self-efficacy, piloting a secret box, connecting with other local organizations, and evaluating FFFB's client tracking software.

Figure 1. Link2Feed description on their website: www.link2feed.com

Three years ago, FFFB began using Link2Feed, a customer relationship management software designed specifically for nonprofit food banks with the aim of helping these organizations better track the food insecurity of their guests. Link2Feed tracks guest information, number of visits, services provided, assistance programs recommended to guests, educational outreach, and other areas. As with other client tracking software, Link2Feed has the ability to not only sort and store the data but also to generate prebuilt reports, spreadsheets, and data visualizations. In our early meetings with FFFB staff, we identified a number of challenges that Link2Feed was posing. For the most part, staff felt that while Link2Feed more or less did what it needed to do, it was not user friendly, did not allow for customization, and did not have a way to integrate client data with email functionality, a feature that would allow the food bank to identify and immediately reach out to clients that would benefit from particular programs or events. We determined that in addition to the other aspects of the class project with Food Finders, it would be beneficial to examine Link-2Feed further, dig deeper into its capabilities, and see if there were hidden features or workarounds that would better meet the FFFB's needs and, if not, if there were alternatives for software or reporting.

Over the period of the semester, we had several meetings that were focused on understanding the experiences of FFFB staff and their uses of the Link2Feed software. We met four different staff members of the FFFB, as well as the CEO of the organization, each of whom has different uses for Link2Feed and different experiences with the software. The staff expressed their concerns about not being able to do what they actually want with Link2Feed. The concerns mostly were based on usability and interface of Link2Feed and some issues with data collection as well as data exporting. In our meetings, FFFB staff shared with us their firsthand experiences, and as we came to understand their point of view, we began to categorize this feedback into themes that

Figure 2. Students of English 680 in conversation with CEO of Food Finders Food Bank Katy Bunder in one of the meetings.

captured the essence of the staff experiences. In our meetings, we were also given access to Link2Feed as network administrators. This way, we ourselves could explore and have an experience of using the software.

After collecting the information from the staff of FFFB and their needs and requirements, we started to explore the strengths and weaknesses of Link2Feed as a client tracking software. We focused our usability evaluation based on the interface of the software, the ability and inability to run surveys within the interface, and the prebuilt reporting as well as data visualization for the reports. For additional technical and usability support we also reached out to the Link2Feed technical team for support. We discovered some strengths about Link2Feed as well as weaknesses while conducting our usability evaluation. We also focused on the challenges based on the interface, surveys, reports, as well as some challenges within the user manual that is available via online. The major objectives of our project were the following:

- Tracking Usability Link2Feed: Lack of Usability
  Our project also focused on understanding the usability and various features within Link2Feed. Our major focus regarding usability was to find easier ways within Link2Feed regarding data entry and report exporting.

- Data Input and Reporting: Lack of Reporting Options
  Data input and exporting reports were our other two major focuses as we looked to see what kind of data and customization is currently allowed for both data entry and reporting in Link2Feed.

- Survey Data: No email integration within Link2Feed
  Another focus of our project was to test the survey feature inside Link2feed. We focused on creating surveys to generate data; however, the results were not in our favor because of lack of email integration within Link2Feed. This is why we suggested an option of using Google Forms for this.

- Develop a "Wish List"
  This would be a comprehensive list of data Link2Feed currently does not track, as well as a list of any changes to Link2Feed's interface or reporting that might improve its use and the tracking of self-sufficiency.

- Recommendation on Link2Feed
  Our project focused on developing a recommendation report for FFFB that included the current features of Link2Feed that can

be used, the problems within Link2Feed, recommendations or adjustments that can be done to increase efficiency of Link2Feed, steps for putting together a ticket for Link2Feed, and future database options.

As a result of our own exploration of Link2Feed and our meetings with FFFB staff members, we came up with these major observations about the software:

- Lack of usability in Link2Feed

- Lack of data input options

- Inability of exporting the report when required

- Following up with clients (specifically, surveys)

- Customization of reporting

- Recommendation on FFFB staff: wish list

After discovering these strengths and the challenges of Link2Feed, we presented a detailed report to the CEO of the FFFB, Katy Bunder, at the end of the semester in our class. In the report, we recommended that Link2Feed did not have the capacity to meet the requirements of FFFB staff.

While our early discussions with FFFB surrounding challenges with Link2Feed did not explicitly call these challenges "infrastructural breakdowns," the limitations that were described to us could very well be seen as such, whether they were limitations of technology itself or limitations of those working with the technology to work through such breakdowns. For example, one infrastructural limitation relating to Link2Feed often had to do with the amount of time that FFFB staff had available to utilize and investigate the software. Staff at FFFB had full, eight-or-more-hour work days during which they had responsibilities to complete. This did not allow time for them to dive deeper into Link2Feed, whereas we, as students whose project was focused on this software, did have the time to put in. Meeting with our community partner also gave us a sense of the technological limitations of Link2Feed, and as we began working with and testing the software ourselves, we were able to verify many of these limitations.

At the end of the semester, after our usability testing, we were able to explore the issues FFFB staff were having within Link2Feed and were able to recommend other options that could enhance the capacity of the software. For example, we recommended ways to download the data from Link2Feed and utilize Microsoft Excel to create data visualizations and reports that would do

what the staff needed. In this way, keeping in mind the members of the community kept the task focused on implications beyond just the class requirements or the technology itself.

The lasting value in a service-learning experience, whatever kind of class that experience occurs in, results from a combination of academic rigor and application of academic learning outside of the university. Bringle and Hatcher (2009) note that when learning and research take place with the community, the result is a greater sense of community engagement in students and scholars (p. 39). We experienced this sense of engagement in our own work with FFFB. We determined goals with our community partners, researched according to those goals, and produced a technical document for our partners, a document that could have turned out much differently in a strictly academic setting. We had the experience of working through challenges in infrastructure and user interface, some of which were the same challenges our partners faced, and through the process we forged a stronger connection with our community. Service-learning fosters this kind of connection between learning done in a classroom and experiences outside of the classroom, allowing for learners to not only have experiences outside of their classroom but also interact with individuals of diverse backgrounds. Service learning puts a "face" on the academic experience, helping students and scholars who work with sometimes abstract data and data visualizations to maintain a connection to the real people that data represents.

COMMUNITY IMPACT

Our recommendation report, presented to the CEO of FFFB, was subsequently emailed to all of the FFFB staff with whom we had met over the course of the project. While we were not able to find easy solutions around how to best utilize Link2Feed, our solutions did have an impact on the community partner. First, in the simplest sense, our analysis of the software verified to the FFFB CEO the claims her employees had made regarding Link2Feed's challenges. Having that outside, independent verification can be helpful as a first step in determining future strategies regarding the technology. Second, our recommendation report provided several workarounds that could feasibly be used to sidestep the infrastructural and usability challenges that the staff was facing. These workarounds included detailed instructions on how to download the data from Link2Feed into spreadsheets, and then how to utilize pivot table features in Excel to build tables and visualizations of that data. The task of working with and visualizing the data could

also be picked up by future service-learning courses, allowing students to continue to refine the visualizations and continue to work out ways to interact with the big data. Finally, in a broader sense, any improvements to FFFB's relationship with its software will enable the organization to better track and serve the individuals in the surrounding community.

In addition to creating the recommendation report, we also wanted to better understand the clients who utilize FFFB services in the Greater Lafayette area as well as other counties. To do this, each class member volunteered regularly at the pantry. We worked directly with hundreds of community members as well as other volunteers to register pantry visitors, help them get their food, restock shelves, and even package food in advance. With the other 11 students in the seminar, we also applied for a grant to support FFFB's initiative in nearby Montgomery County, one of the more underserved counties in FFFB's service area. We received a total of $1,750 in grants from the Office of Engagement at Purdue University. With the funding, we were able to staff and supply a mobile food pantry where we served over 200 individuals living in Montgomery County. Students from our class as well as Professor Bay volunteered to help distribute the food. These experiences with FFFB helped us get a sense of the numbers of individuals and their variety of backgrounds, all which gave us greater perspective as we researched ways in which Food Finders could improve its tracking software.

STUDENT IMPACT

On a more personal level, working with FFFB allowed us as students to have experience building a technical document with and for an audience outside of our usual academic context. Normally, we write research papers for classes or for submission to academic conferences or journals, and we tend to focus on academic audiences within our field. In this case, our document was planned from the start with the community partner in mind, and it was aimed at audiences outside academia. Our research was based on the needs of the partner organization, their staff's needs, and the community they serve. We proceeded by looking into the elements of Link2Feed that we felt would most benefit the partner. And when it came time to prepare and produce the recommendation report, we had to utilize language appropriate for a business setting rather than an academic one. Both of us have worked outside of universities before, and it was a valuable experience to revisit this kind of research as well as writing, particularly since both of us are working in the field of technical and professional communication. Building this

Figure 3. English 680 students Lindsey and Sweta with their colleague Priya at a local festival in Lafayette.

recommendation report also had the benefit of giving us an opportunity of creating something that would result in more than a grade at the end of the semester. The report had the potential to impact the lives of the people in the community, which made crafting it feel significant.

This significance was also felt through the opportunities we had to volunteer and participate in FFFB's community work. While volunteering, we had the opportunity to use Link2Feed to check in visitors to the pantry, not only getting a firsthand sense of how the software worked but also seeing the members of our community and, perhaps most importantly, interacting with them. We had the experience of working behind the scenes at the food pantry, meeting other volunteers, seeing the many cogs and gears that are required for FFFB to fulfill its goals. This interaction allowed us to maintain perspective throughout our project. These were not just words on a document, numbers on a spreadsheet, or bars on a graph. These were our neighbors about whom we didn't have an idea until we started volunteering at the FFFB. Having this perspective helped us remember that there are real people involved with writing and rhetoric, and that our actions can and do impact them.

CONCLUSION

Service-learning puts students in the position of working outside the academy, with community members (Herzberg, 1994; Heilker, 1997). This engagement-oriented work allows students to support projects and efforts of community members, while also encouraging students to communicate and work with community members efficiently. Heilker (1997) writes that for students to "experience writing as social action, we need to move

the where of writing instruction to some place outside the classroom" (p. 72). In this service-learning seminar, our own work was done primarily outside the classroom: we focused our investigation on supporting the needs of our community partner. In doing so, we found out that the academic work should be continually informed by the presence of the actual community members that they are serving, and to effectively learn about social issues, we would need to bear in mind the specificity of the population that FFFB serves. In working with our community partners and understanding them on a deeper level, we came to learn that we are not just the students who work on our own individual interests but we are also part of the community who can responsibly contribute to the community via our writing and research skills. We also realized that this kind of graduate seminar allows us students to become more aware of our community and seek out ways in which we can connect our university work in supporting our community.

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