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# A CASE OF JEKYLL AND HUB

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*Revised talk script presented at the Digital Frontiers 2019 conference as “GitAnnotated: Creating a Digital Annotated Bibliography on GitHub.”*

Both yesterday and this morning, we have heard inspiring tales of Digital Humanities work that is shaping the landscape of this field. This presentation is not one of those tales. This is a story about a staff member, a librarian-mentor, and a failure-turned success. It is a story about a learning process to pick the right digital tool during a short affair with digital humanities for me and my colleague Pamela Andrews. I am presenting parts of Pamela’s experience along with my own as she was unable to attend. I will do my best to capture the complexities of both of our experiences.

To begin this story, I have to go back to 2016. As a staff member, I was asked to complete an annotated bibliography for one of the workgroups in the library. I spent a year reading literature and created a draft version for use in 2017. Then I added more literature in 2018 and showed interest in adding more literature the following year. Each version was archived in the UNT Scholarly Work Repository.<sup>1</sup> Because I kept adding literature to the bibliography, my librarian colleagues had a vision for the document to be a collaborative project for self-study and professional development within our libraries. They wanted other librarians to contribute and share their own reading. It seemed like a grand idea at the time. However, static papers, while sharable, are not collaborative. In communicating this with Pamela in passing, she offered to help and mentor me in finding a platform that would allow the project to be collaborative.

In the end, we attempted and generally succeeded to create a website for collaboration for multiple users, though we far from accomplished what we sought out to do. While WordPress was a good possibility for what we envisioned at the time, Pamela suggested using Jekyll and GitHub for the project because they are open access tools that could be easily learned by any DH novice. I, myself, was venturing into Digital Scholarship for the first time, and Pamela didn’t want to overwhelm me with too many new skills to learn. However, Pamela also wondered if this

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<sup>1</sup> The paper version of the annotated bibliography is available at:  
<https://digital.library.unt.edu/ark:/67531/metadc1181169/>.



project would be an interesting opportunity for her to look at using Jekyll to sustain similar projects on GitHub. She too wanted to learn the skill.

Since this was my first digital project, Pamela took the lead in creating the GitHub Pages and the shell of the website. That way she could set up all the back end files needed to run the site, while I focused on transitioning the paper annotated bibliography into markdown syntax, a skill I would need as I continued to compile resources to add to the site. The former English majors in us both agree that one of the fun things about markdown is how every keystroke, even spaces, contain meaning, and only in rare occasions does it require additional html tags to render a command. I used online tutorials to learn Markdown. In creating the files, I mainly used the syntax for heading levels 1, 2, and 3, bold text, italicized text, horizontal rule, embedded link, new paragraph, and block quote. The only non-markdown command that we used is the HTML code for indents. Only half of the markdown commands for indents rendered on the Jekyll site so we used the standard HTML code instead. We still have yet to discover why the Markdown commands did not render. My job was pretty easy compared to what Pamela struggled with.

Pamela's job was much harder and time consuming as she volunteered to put together the website shell. She had wanted an opportunity to tinker with Jekyll-based websites. In theory, Jekyll's folder directory system and preset blog features would allow us to give each annotation its own file for easier locating and record editing. It would allow contributors to add their own content without accidentally editing any other records. Because we were using the blog syntax, each annotation file had to be named according to their purpose and tagged as a post in their own .md files.

- Bibliography/
  - o 2019-08-29-post-one.md
  - o 2019-08-30-post-two.md
  - o 2019-08-31-post-three.md
  - o 2019-09-01-post-four.md

Using this file directory system had the additional benefit of allowing users to navigate the site more quickly without scrolling through long pages.

However, while I liked the theory of the blog format, I still wanted the bibliography to look like a bibliography with subsets of topics in the Table of Contents. I had the entries organized in a very specific way to ease librarians into the content and progress their learning. The blog feature didn't maintain the hierarchy of subtopics that I had created. We had a few options available:

- 1) creating one page containing all the entries;
- 2) creating separate webpages for each major section that would then list of the entries in the subsection, or
- 3) creating separate blog-style webpage for each subsection so that each entry had its own file.

This last and more complicated combination of blog with subsections is why I wanted to simulate the function of a bibliography because it allowed us to have a homepage with a table of contents that could be used to navigate to each blog section. Pamela, herself, wanted to see if Jekyll would allow us to move between multiple blogs within a single site so that each sub-topic's bibliography could stand alone or be combined as could be done in WordPress. There were two methods to create a system. First, Pamela had to combine all blog posts in one

directory with tags that differentiated it by subtopic, and second, she had to build each sub-topic blog with its own subdirectory to read the tags. When we talked about it, it sounded do-able and painless. Then we ran into issues.

The main issue was that the coding for the multiple subdirectories and tags proved to be much more difficult than we expected for our novice understanding of the systems we were trying. We were too ambitious for our knowledge basis and timeframe. We only had one summer to get this right. Pamela reflects:

I broke many things. And fixed many things. I was eventually able to create individual web pages that would only show one subtopic's tagged posts. However, with the blog format, it included preset displays that showed this was a tag. I was not able to find a way to provide introductory text about the topic to frame the entries with, and we found that having the entries exist in isolation without any introductory text was not as desirable. Having the blogs set up as separate subdirectories also invited a similar problem with including introductory text. It also provided the additional complication of needing to direct contributors to each specific subdirectory.

So, we need to reevaluate our remaining options. We could either 1) have one long bibliography on a webpage that would basically serve as an exact digital representation of the original word document; or 2) create multiple webpages for each subtopic that could be accessed from a homepage with a table of contents and statement of purpose.

Since we were determined to defeat our Jekyll and Hub, we went back to our second option to create separate web pages that would contain each topic section and all the annotations for a learning objective in that section. This is both a positive and a negative. The project became much, much easier, but without the added topical breaks, the pages became extremely long and harder to navigate without the blog functionality. In the end, we were able to create a digital annotated bibliography in our short timeframe. However, we failed to complete our vision, despite having a final product.

At this point, you may be wondering why present this at all? We failed to do what we wanted, right? True, but failure is an excellent teacher. Pamela and I both had to teach ourselves a new technology. We empowered each other to try something new without much risk. And for us, it was more important for us to present our struggle than our product. All scholars go through trial and error. We all fail from time to time or create several iterations of a project until we find the perfect digital tool that captures what we envision. So, these processes and struggles of creation can be more important for professional growth than the final product. But academia often ignores those failures, partial wins, and processes. And this does a disservice to our early career professionals and students. They need to hear these stories so that they have the courage to try new things. Thankfully, DF is just the right community to share our failures as well as our successes.

In the following appendixes, we have provided a list of our common Markdown codes, a sample of a markdown entry, and a list of the tutorials that we used to teach ourselves. Finally,

we would like to invite you to contribute the annotated bibliography on GitHub.<sup>2</sup> There are three ways you can contribute:

- 1) Contribute your own annotation! You can do so by creating a pull request on the desired subtopic file and adding the information you would like to include.
- 2) Recommend resources! If you'd like to recommend a resource but don't want to (or don't have the time to) create a full annotation, you can submit an issue in which you let us know what text you'd recommend.
- 3) Leave feedback! You can also submit an issue to provide feedback in the form of any suggested edits, additions, or comments on further ways we could develop the bibliography.

Thank you for your attention and support.<sup>3</sup>

## Appendix A: Common Markdown Syntax Commands

Headings:

# H1

## H2

### H3

Bold text:

**\*\*bold text\*\***

Italic text:

*\*italicized text\**

Horizontal Rule:

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Embedded Link:

[title](https://www.example.com)

New Paragraph:

double enter

Blockquote:

> blockquote

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<sup>2</sup> The GitHub site can be accessed at <https://behenson.github.io/pedagogy4liaisons/>. Contributors must create a GitHub account in order to make pull requests and comment.

<sup>3</sup> The accompanying slides can be found here: [https://drive.google.com/open?id=1ROE7LI\\_KunFS7IzuwpUqww64YlqwPp0a](https://drive.google.com/open?id=1ROE7LI_KunFS7IzuwpUqww64YlqwPp0a).

## Appendix B: Sample Markdown Entry

This is a sample of a markdown entry as you would type it into the file. The lines in the file are pre-numbered and you just add the syntax and the code.

1. ---
2. layout: page
3. title: Types of Pedagogy
4. tagline: pedagogy4liaisonsperma
5. link: /types.html
6. ---
- 7.
8. # Types of Pedagogy
- 9.
10. In this section, you will find individual chapters and essays that have been generally categorized by pedagogy, theory, and theme. The sections include the following topics:
- 11.
- 12.
13. ## Composition and Rhetoric
14. \*\*Fister, Barbara. 1992. "Common Ground: The Composition/Bibliographic Instruction Connection." In \*Academic Libraries: Achieving Excellence in Higher Education: proceedings of the Sixth National Conference of the Association of College and Research Librarians\*, Salt Lake City, Utah, April, 154-58.\*\*
15. ISBN:                   0838976220                   [Link                   to                   UNT Record](https://iii.library.unt.edu/record=b2365251~S12).
- 16.
17. <p style="text-indent: 40px">Fister reflects on the common themes found in composition and library studies. Using citation analysis, she notes the lack of communication between the two fields who both aim to "improve[e] student research" and draws out her argument that they need to communicate with each other. She examines concerns within composition pedagogies and links them to those in library studies. She then suggests ways for librarians to engage with the discourses in composition to network with its practitioners. </p>

## Appendix C: Tutorials Used

"Mastering GitHub." GitHub Guides. Last modified January 15, 2014.

<https://guides.github.com/features/mastering-markdown/>

Cone, Matt. "Cheat Sheet." Markdown Guide. Accessed June 5, 2018.

<https://www.markdownguide.org/cheat-sheet/>

Cone, Matt, "Getting Started." Markdown Guide. Accessed June 5, 2018.

<https://www.markdownguide.org/getting-started/>

Gruber, John. "Markdown." Daring Fireball. December 17, 2004.

<https://daringfireball.net/projects/markdown/>

Pritchard, Adam. "Markdown Cheat Sheet." Markdown Here. Last modified May 29, 2017.

<https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>

Visconti, Amanda. "Building a Static Website with Jekyll and GitHub Pages." The Programming Historian. Last modified May 28, 2019.

[https://programminghistorian.org/en/lessons/building-static-sites-with-jekyll-github-page  
s](https://programminghistorian.org/en/lessons/building-static-sites-with-jekyll-github-pages)