Report: Thinking Digitally

From: Sharon Alker, Emily Jones, and David Sprunger

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This report affirms that we have completed teaching the course *Thinking Digitally* in the Spring Semester of 2017. When we say "we," we mean the following: Sharon Alker, Amy Blau, Emily Jones, Colin Justin, Rachel George, Sarah Hurlburt, Justin Lincoln, Lydia McDermott, Ben Murphy, Mike Osterman, Nico Parmley, Melissa Salrin, and David Sprunger. We have listed below information on the amount of stipend that should be given to each instructor in the course. Overall, the course was successful. Although a few students dropped out part way through the course, 20 students completed the course (21 if you count our Associate Dean of Faculty Development who generously participated in the course). Twelve were female students and eight were male students. This suggests that although computer science as a discipline (across all colleges) works hard to attract female students, there is clearly a demand among female students for digital knowledge.

We used the syllabus that we had designed in the summer workshop. That syllabus had 5 units, including a foundational unit and a 5 class project unit at the end. The units in-between were Manipulating Text, Data Visualization, and Digital Storytelling. The early responses to the evaluation we designed (as opposed to the college evaluations which we have not yet received) suggest that these units worked well, and thus it was an effective way to structure a course that dealt with a wide array of activities.

The grades were pass/fail and the course was taught under the umbrella of a second-year interdisciplinary course. The pass/fail option was an optimal way of teaching the course since there is a substantial emphasis on productive failure in digital studies, and the reduced need to worry about grades allowed students to focus on learning and experimenting with new ideas and tools. Given that we did a lot of group work in the course, the pass/fail rubric ensured that students weren't anxious about how their team members were performing.

The students acquired an array of theories, methods, and tools. For example, we talked about the sort of questions that can be answered using digital means, and the limitations of these questions. We explored how digital tools can be used analytically to raise new questions, and how they can be used creatively to craft stories or exhibits. We also discussed ethical issues such as access, and issues about the level of accuracy we can or cannot acquire with certain tools. The students also acquired knowledge of (and some experience in) a number tools and an awareness of digital projects. This included:

Google Ngram: a viewer connected to Google Books that charts temporally how certain words or search strings have been used in the collection of books between 1500 and 2008.

Voyant Tools: an open source web-based application that analyzes digital texts in a variety of different ways.
Text Coding Initiative (TEI): a consortium that defines encoding methods for texts that are to be digitized)
Fulcrum: a data collection platform that works on mobile phones to take images and collect data on these images (e.g. GPS coordinates). This data can then be uploaded to other programs to analyze.
Tableau: a tool that creates an array of data visualization possibilities. Although it is often used in a business setting it can be adapted to a wide variety of uses. We used Tableau to work with the data collected through Fulcrum.
Adobe Spark: a free online graphic design application that allows users to tell stories with videos, photos, and text.
Twitterbots: a type of bot software that allows users to set up automatic tweets or retweets.
Omeka: (an open-source web-publishing platform that is optimal for archival exhibits),
Electronic Literature: we made available to students an array of works of electronic literature that use a wide variety of tools.

We expect this project to have an influence on future digital studies at Whitman, and thus we tried to publicize it as much as possible. To let our peers know more about our class, we presented on the course at a faculty forum in late April, 2017, and our talk seemed to be well received. This talk not only discussed the course itself, but also the importance of liberal arts colleges and their students participating in digital matters. Given the emphasis on profit and the present in the current web, it is vital that liberal arts students, who are skilled in the methodologies of the humanities and social sciences, intervene to transform this tendency, putting more emphasis on such areas as ethics, history, and cultural complexity. We also pointed out that when we are weaving digital tools into the curriculum it is vital to do so in an organic way, and without diluting the scholarly expertise students will acquire. In other words, we feel that the best way to develop digital studies at liberal arts colleges is to work from the bottom up, allowing faculty to forge alliances with technology and library staff and to develop a digital fellow program that could also give technical support. We expect to weave our newly acquired knowledge of tools into our individual classrooms where it enhances in-depth learning of our subject matter.

To help students who might wish to enhance their knowledge of digital matters, we invited Prof. Janet Davis to class to invite students to take introductory computer science courses. We hosted (thanks to funding from the Associate Dean of Faculty Development) a visiting speaker who conducted a workshop and gave a presentation on twitterbots. We also invited faculty and staff to attend a public presentation of the class's final group projects. The event was well attended. And the library has highlighted this course on its blog.

We maintained a captain's log google document throughout the course (it is now almost 60 pages), so we have extensive notes that can be used going forward to help plan future classes or as a foundation for any research coming from this course. Several members of our group have an

interest in publishing on this experience. We did have all students fill out an IRB form so that we can quote their work anonymously.

Going Forward:

We will be holding a meeting next week in which we will debrief, discussing what the strengths of the course were and what we might do differently had we the opportunity to teach it again. We are not planning to teach the course in this manifestation again (it is very time consuming to organize), but we do think that it has served us very well to think about how to integrate digital approaches into our classroom. We will also want to ask ourselves where do those of us interested in continuing to weave the digital into our teaching, research and other work want to go now. What are small ways we can continue to build our knowledge, keep our connections, and invite others to participate without drowning in extra work? We plan to take ideas that emerge from this discussion to our Associate Dean for Faculty Development, whose support has been invaluable.