A DEH TOOLS LEARNING MODULE
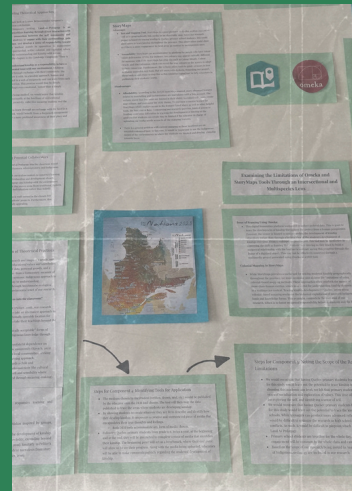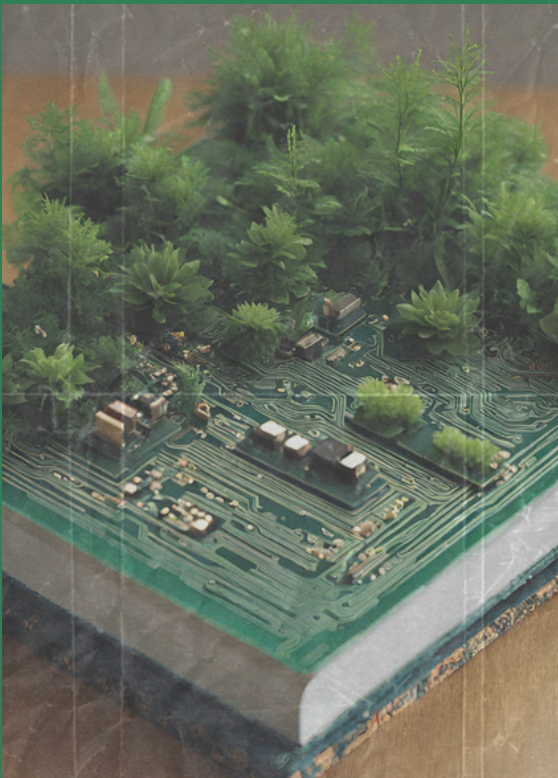
This module prepared students to develop a research proposal in the environmental humanities as a framework for exploring the strengths and limitations of different digital humanities tools. It is well suited as an introduction to digital environmental humanities for undergraduate students and can be easily adapted for a more in- depth engagement with desired tools.

Following **Bloom's taxonomy of learning,** the module pursued a deepening set of learning outcomes. Students began by first **identifying** and **using** DH tools to eventually **compare** different tools. Then students turned to **proposing** a research project and ultimately **evaluating** the different tools they had chosen for their research proposal.

Students were initially introduced to DEH through two lectures. The opening lecture established the topic[1] and provided three exampled of DEH projects ("Native Plants of the High Line: Tending to Turtle Island", "Feral Atlas", "What is Missing?"). The second lecture delved deeper by considering four different dimensions of digital humanities[2] analysis and four specific tools that exemplify them:

MAPPING & TIMELINES

STORYTELLING

TEXT ANALYSIS

VISUALIZATION

In small groups of 4-5, students were given the following prompt to explore the tools more on their own during class time with instructor support as needed.

> Imagine that you had an endless supply of time, energy and resources to research a key question in the environmental humanities using digital humanities tools. What key question in the environmental humanities would you want to research? What two digital humanities tools would you use? And why?

The module concluded with the groups preparing a poster outside of class-time. The research proposals were required to involve two of the four presented DH tools as integral to the methods. The research proposal posters were presented in class to peers, the instructor and invited guests.

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Given the breadth of possible "environmental" topics that could be explored through the four digital tools selected for this module, we provided **examples of inappropriately and well-scoped research questions as a part of the guidelines** for the research proposal poster assignment. Students were encouraged to think about their question alongside the DH tool they were going to use. Prompting students to explore the tools beyond the lectures helped enrich their understanding of how the tools work.

Broad scoping or ill fit between topic to tool can be common at the outset, so students were provided **informal early-stage feedback in class** regarding their emergent research questions. For example, one group proposed the following research question:

> " How has the concept of the Great Chain of Being been perpetuated in science-fiction?"

They were asked to refine their question by **identifying what concept** from the Western ideology of the Great Chain of Being **they were most interested in.** It became clear through discussion that they had an initial hypothesis about science fiction perpetuating the **human/animal binary.**

They were also asked to **focus** in on a specific **period** of science fiction and **break** down their question into different **sub-components**. How would the 'human/animal binary' be approached in terms of the digital humanities tools available?

Conversations about data in the humanities were also helpful for guiding students towards asking appropriate research questions. To engage students with this topic, we included the following discussion questions in the lecture:

What constitutes data in the humanities?

How to collect data in the humanities?

What DH tools can be used to collect, analyze & visualize data in the humanities?

Kanesatake

Oka

Lac des Deux-Montagnes

L'Île-Cadieux

Vaudreuil-sur-le-Lac

t-Lazare

Vaudreuil-Dorion

Carex pedunculata Muhl.

Known as Long-stalked Sedge in English and Carex pédonculé in French, Swales encountered this sedge in Île Perrot, Quebec in May 1932. This sedge,...

Source: Digitizing Botanical Herstory

REFLECTIONS ON THE MODULE

Delivering this module in four sessions over two weeks made for a nimble addition to a course but also means students didn't have a lot of time to revise their research questions for the proposal. More time could be spent with the tools (in or outside of class) before asking students to propose a research question that would use two of the tools.

While the DEH project examples presented by the instructors did give students the opportunity to reflect on the kinds of tools, data and research questions informing these examples, a more independent exploration of DEH projects from a curated list could foster a deeper understanding of the field.

There was a tendency to use high-level concepts in developing research questions (i.e. Great Chain of Being, Traditional Ecological Knowledge) that needed to be productively unpacked as part of a Humanities analysis.

Asking students to share examples of humanities data engaging environmental topics with the class could be useful as environmental data were often assumed to be exclusively quantitative and scientific.

Future iterations of this module might engage the following questions:

1 What other tools could lend themselves to quick learning in class and useful as a way of exploring DEH research questions?

2 How might we expand this assignment into multi-module learning activities? How would the assessments change to reflect this and scaffold the work?
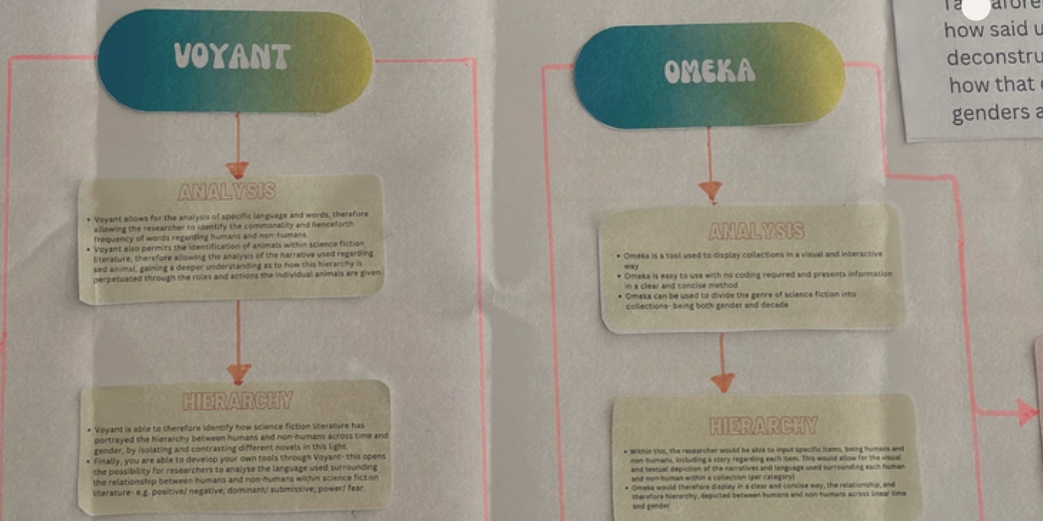
Students' comparison of DEH tools Voyant and Omeka on their research poster

STUDENT FEEDBACK

"the incorporation of digital humanities into Environmental Humanities demonstrates another facet of interdisciplinary work, leveraging digital tools and technologies to explore and address environmental challenges through innovative methods and creative expressions."

"when participating in the section on digital environmental humanities, I was very skeptical, I did not understand how and why this form of study was needed. I felt that it solely added on unnecessary mediation and pulled us farther from human-ness. Through understanding different time forms more, I realized that traditional literature and film cannot always capture varying types of time because they have a particular start and stop. By implementing more spatial understandings of topics through alternative story presentations of the environment, we bypass the expected linearity and gain access to new perspectives."

Students got creative with their poster presentation

NOTES

1. Ryan, Hearn and Longley's "The Digital Environmental Humanities (DEH) in the Anthropocene: Challenges and Opportunities in an Era of Ecological Precarity" (2023) and MacFadyen's "Digital Environmental Humanities" (2022) are great papers for introducing the field.
2. The New York University DH guide https://guides.nyu.edu/digital-humanities is a tremendous resource for thinking through the different possible dimensions of analysis and tools best suited to them.

Visit our slide library in the DEH pedagogy section of the DEH website for more inspiration for your DEH module.

RESOURCES

MacFadyen, J. (2022). Digital Environmental Humanities. In S. Noiret, M. Tebeau & G. Zaagsma (Ed.), Handbook of Digital Public History (pp. 97-106). Berlin, Boston: De Gruyter Oldenbourg. https://doi-org.proxy3.library.mcgill.ca/10.1515/9783110430295-008

Ryan, J., Hearn, L., and Arthur, P. L. (2023). The Digital Environmental Humanities (DEH) in the Anthropocene: Challenges and Opportunities in an Era of Ecological Precarity. Digital Humanities Quarterly 017. https://www.digitalhumanities.org/dhq/vol/17/3/000714/000714.html

Rogers H. 2023. Digitizing Botanical Herstory : Dorothy Swales. https://digitizingbotanicalherstory.com.

https://dig-eh.org/