Digital Studies and Methods: Seminar

Benjamin Miller DSAM 3000, Class Number 31842 / HAA 2045 (CN 29870)

email: millerb@pitt.edu Fall 2024, Monday 9:00–11:50am

office: Cathedral of Learning 617-N class location: CL 329

office hours: drop-ins M/Th 12:30-2:00pm, or by appointment

All this information and more will be posted on our course website, [**benmiller314.github.io/dsam2024fall**](https://benmiller314.github.io/dsam2024fall).   
Please check there for the most up-to-date versions!

# Course Description

The DSAM Seminar is designed to prepare students to undertake independent digital projects in scholarly or creative modes. Each week, we'll divide time between reflective discussion informed by assigned theoretical readings, addressing the relationships between digital computing and the humanities and allied social sciences, and hands-on practice with digital tools and platforms. In addition to smaller skill-building exercises, students will iteratively develop a more sustained project of their own choosing – with feedback from the professor and peers to help keep the scope both tractable and compelling. No prior experience in digital research is necessary.

This course serves as one of the core requirements for the Digital Studies and Methods (DSAM) Graduate Certificate.

# Course Outcomes and Responsibilities

**Students** in this course can expect to…

* respond orally and in writing to the ideas and strategies in both fellow students’ and assigned texts
* practice offering and receiving feedback on your work, examining *process* as well as products
* appreciate the human subjectivity involved in parsing real-world phenomena to make them tractable by computers
* understand basic programming concepts, even if you’ve never programmed before
* propose, design, iterate, and present an original investigation in your own scholarly domain whose construction relies on the use of digital technologies
* reflect frequently, including in writing, on the larger implications of the theories and tools we study as a class

Students in this course can expect **their professor** to…

* respond orally and in writing to the ideas and writing strategies in both students’ and assigned texts
* provide example arguments of the kind he asks students to produce, and lead discussion of their organizational and rhetorical features
* provide theoretical frameworks for understanding and/or generating questions about digital studies and methods
* discuss rationales for what each exercise is designed to do, and why it ought to work
* encourage students to retry earlier exercises in later contexts, to support the development of expertise
* share and reflect on his own work, subject to the same principles of critical generosity and generous criticality that will govern peer review in the class
* encourage collaboration in both formal and informal learning projects throughout the course
* build flexibility into per-class and semester-long schedules, with extension activities and fallback options, to be responsive to the different speeds and competing pressures students bring to bear on the work of the course

I strive to set you up for success. *If there are circumstances that may affect your performance in this class, please let me know as soon as possible so that we can work together to develop strategies for succeeding*, which might include adapting assignments to meet both your needs and the requirements of the course. Please also see my guidance below on [Inclusion and Access](#_Inclusion_and_Access) and on [Resources at Pitt](#_Available_Resources_at) for some of the available institutional supports and suggested ways we can mutually support each other.

# Required Reading

Please see the weekly lesson plans online for the most up-to-date list of required and recommended readings; the latter will be marked EXT, for “extension.” Given the time constraints of the semester, we will not discuss any books in their entirety, though a few may make repeat appearances. Instead, I’ve chosen to give you a varied sampling of ways to model or frame digital studies and/or methods, and after getting a taste you may well decide some are worth having in your collection.

All assigned texts will be available electronically, whether as open educational resources, through the library’s database access, or in scanned copies shared via Canvas. Please do not redistribute scanned texts beyond the class, so as to honor the fair use of these materials. You are certainly also welcome to obtain print copies if you prefer, especially if you want more context for excerpts or less eye strain for longer readings.

# Required Writing

In addition to shared in-class assignments and weekly [reading responses](#readings-and-responses), everyone in the class will be expected to [work on an independent project](#mindful-practice-journal) for several hours a week outside of class, and to iteratively update a [public archive](#palimpsest-of-public-iteration) of your progress as you go. You will [present your project to the class](#presentations-and-peer-review) three times over the semester for generous, formative review by your professor (me) and each other (writing two letters each).

These projects can vary as much as your interests do, and should incorporate tools and theories appropriate to the questions each person is asking. **I’ll expect everyone to** [**meet with me**](file:///Users/MILLERB/OneDrive-UniversityofPittsburgh%20(Archive)/_BoxMigration/teaching/DSAM%203000/office.md) before the end of week 3 (in 2024, that would be by Friday, September 13th) – and **ideally before the end of week 2 (September 6th)** – so I can help point you in productive directions.

We’ll have some time in class to collectively troubleshoot your independent projects-in-progress, which will surely help everyone to learn both about a wider range of tools and about the process of finding paths forward! But you can also always ask me for follow-up advice during office hours.

*MA students and auditors are invited to talk to me about possible workload modifications.*

## Readings and Responses

In most weeks, I will assign several texts or videos to review as preparation for the subsequent class. I’ve tried to keep these relatively light, so you can continue working on your own research, analysis, and/or programming – they peak at about 85 pages, and average closer to 60. That said, I will also suggest some optional extended readings for those of you who want to dig in deeper. (Some of these are already in the [schedule](file:///Users/MILLERB/OneDrive-UniversityofPittsburgh%20(Archive)/_BoxMigration/teaching/DSAM%203000/schedule), marked with EXT.)

To help you process what you’re reading, and to seed our in-class conversation, each week I’ll ask you to post a *reader response* on a shared [discussion forum](https://github.com/benmiller314/dsam2023fall/issues). These should be grounded, where possible, in at least one *quoted passage from the text*, and can include questions, confusions, connections, excitements, or incitements. If you aim to write at least 100 of your own words, that should give us a place to begin.

Direct responses to other students’ posts are optional but encouraged; to make that more possible, please try to post by Friday evening when you can.

## Mindful Practice Journal

*h/t to Alison Langmead for some of this language, including the assignment name*

There is a myth that “computers make things faster,” but this is as misleading as the idea that “practice makes perfect.” In both cases, repeating certain tasks can indeed make them more automatic, but defining those tasks and refining how they’re carried out requires a great deal of time, effort, and mindfulness. In the context of interpretive disciplines, mindful work with digital computing can, in fact, take much *longer* than working in modes you’re already used to.

**You should plan to spend at least two to six hours on your project *each and every week*.** Some of that time will be spent reading documentation, debugging or reformatting, or searching for answers to questions about provenance of your objects of study; some will be spent in direct analysis or composing; some will be spent in preparing presentations, translating notes-to-self into a format more amenable to a wider audience. It is common, faced with this kind of “grey” work, for students to become frustrated with their research because it is hard to see how far they have progressed week by week; what’s more, the heart of their transformative learning is often not visible in the products they are producing, but is rather a transformation in mental state.

To keep you present in this work, and in fact to help you see all the learning you’re engaged in, I ask that you **keep a daily journal of what hours you worked on your project and what you did in those hours.** I will not ask you to share the journal itself with anyone, but as you will see below, you will be asked to draw on it – to interpret and present *what you have learned from the journaling* for our classroom community.

NB: Because of the private, reflective nature of the mindful practice journal, I expect this will be separate from the more public commit messages you may compose for git / GitHub, if you're using it. That said, it's not a bad idea to commit frequently, e.g. at the end of working sessions in which your project's product changes, and to use these commit messages mindfully and reflectively as well.

## Palimpsest of Public Iteration

In addition to your private accounting for time, I am asking that you periodically update **a “deliverable,” public-facing version of your project** that you host on the web. This will develop iteratively: whether you begin with ideas in pursuit of materials or materials in pursuit of ideas, you will most likely need to move back and forth between those poles multiple times, each time sharpening your sense of what you need or what you have. The **palimpsest** of these over-writing refinements will be a core component of your final portfolio for this class.

Note that while your Mindful Practice Journal is written for yourself, this web-based palimpsest is best written for an audience that includes me as well as your peers.

You may use any web-based publishing platform you’re comfortable with, e.g. Wix, WordPress, SquareSpace, Medium; there are many free options. One option you should be aware of, if you’re not already, is [GitHub Pages](https://pages.github.com/), which integrates with the change-tracking software I’ll already be asking you to try out early in the term. Even if you’re not (yet) comfortable with web design, you could begin by using [Open Fuego](https://open-fuego.github.io/Open-Fuego-Coding-Tools/): a templating structure designed from the outset to make it easier to work with HTML *while* you’re learning, and developed right here at Pitt by Dr. Stephen Quigley (English).

## Presentations and Peer Review

In several designated weeks across the semester (see the [course calendar](file:///Users/MILLERB/OneDrive-UniversityofPittsburgh%20(Archive)/_BoxMigration/teaching/DSAM%203000/schedule)), you will prepare a **short presentation** to the class. In addition to sharing the latest iteration of your palimpsest, these presentations afford the opportunity to talk about process breakthroughs and moments of stuckness. By discussing these together, we gift each other the chance to learn about more subjects, more tools, more questions, than we would have time to engage with individually – as well as a chance for a change in perspective that might suggest a promising way forward (or, for that matter, around).

Toward that end, after each in-class discussion of the projects, I will ask you to prepare **written comments to your peers**. This act of writing will help you as a reviewer articulate what you’re noticing, what you’re wondering, and what you’re taking away; it will also ensure for the person and project under review that the conversation doesn’t simply vanish into air. At the end of the semester, I will ask you to review the notes you’ve received and cite the most helpful ones in your final reflection.

To prepare for your presentations, you should begin by asking yourself: *What am I excited about? What am I wondering?* Additional questions, designed to take you deeper into the project with each iteration, can be found on the course calendar in the weeks before each presentation is due.

This being an introductory seminar, I’m not expecting everyone to get to a complete, publishable, argument or exhibit; I *am* expecting everyone to make progress toward defensible claims and presentable artifacts. By the end of the course, you should be ready to propose a semester-long project you *could* take to completion in DSAM 3100: Practicum. Follow your curiosity, and be prepared for some frustration. As long as you can find some pleasure in the difficulty, you should be in a good spot for learning.

## Final Reflection

Reflecting on what you learn in the process is at least as important as reaching any particular goals you set early on. The last assignment for the semester is a **reflective letter to me**, both articulating your learning in the class and illustrating your claims about that learning by *calling attention to features of your products or your processes*. The goal here is less a restatement of what you’ve already written than an opportunity to think synthetically, across iterations and into the future.

To help you get there, I’ll periodically ask you to take stock in writing of both your projects and our in-class discussion, linking the theories we’ve read to your independent work and vice versa.

# Policies

* [Attendance](#attendance)
* [Inclusion and Access](#inclusion-and-access)
* [Avoiding Plagiarism](#avoiding-plagiarism)
* [On Artificial Intelligence](#on-artificial-intelligence)
* [Feedback, Assessment, and Grades](#feedback-assessment-and-grades)

## Attendance

This class meets only once a week, and several of those weeks include holidays that mean we will not meet as a group at all. In a small seminar such as this one, the loss of even a single member of the class can have a major impact on the work we’re able to do and the insights we’re able to reach. I therefore expect everyone to be present whenever class is in session.

That said, I know life is complex, and we have a lot going on – including conferences, illnesses, families, and other legitimate claims on our time and energy. If you know in advance that you will not be able to attend, please let me know and we can try to arrange an alternative form of participation. If you must be absent unexpectedly, please try to reach out to me and your classmates as soon as you’re able. It won’t be the same as if you were here, but something may yet be gleaned as we try to catch you up.

## Inclusion and Access

I ask everyone in the class to help ensure that we can all learn in a supportive and respectful environment, including by using [gender-inclusive language](https://www.gsws.pitt.edu/resources/faculty-resources/gender-inclusivenon-sexist-language-statement-syllabi).

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both me and the Office of Disability Resources and Services, 140 William Pitt Union, 412-648-7890 / [drsrecep@pitt.edu](mailto:drsrecep@pitt.edu), as early as possible in the term. Disability Resources and Services will verify your disability and help determine reasonable accommodations for this course. For more information, visit [www.studentaffairs.pitt.edu/drs](https://www.studentaffairs.pitt.edu/drs).

For my part, I will work to ensure multiple ways of accessing class materials, including written lesson plans in screen-reader compliant html, with alternative text for images, and transcriptions for recorded videos I provide. Because proofreading the latter can be particularly time-consuming, I ask that you please [let me know](mailto:millerb@pitt.edu) early in the semester if you will be relying primarily on transcriptions to access the videos your classmates will produce: I can introduce digital tools like otter.ai that may help with the first draft.

While we’re on the subject of email, I am obligated to include the standard statement on using your University-issued email address:

*Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications.*

*The University provides an e-mail forwarding service that allows students to read their e- mail via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address. To forward e-mail sent to your University account, go to* [*http://accounts.pitt.edu*](http://accounts.pitt.edu)*, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished. (For the full E-mail Communication Policy, go to* [*www.bc.pitt.edu/policies/policy/09/09-10-01.html*](https://www.bc.pitt.edu/policies/policy/09/09-10-01.html)*.)*

## Avoiding Plagiarism

This is a collaborative class, in which we offer each other suggestions and constructive criticism. However, the goal of all this collaboration is to clarify the expression of original ideas – never to substitute someone else’s ideas for our own, or to impose our ideas on someone else. To misrepresent the origins of an idea is plagiarism, and it is a problem both for your own learning and for the well-being of the community, which depends on mutual trust. If you want to incorporate materials that others have created, you can do so if you give credit to your source. At a minimum, readers of your work should be able to get back to the original, so be sure to provide at least the author’s identity; the original title; the publication venue; the date of publication and/or access; and a URL if appropriate. The English department has some useful resources at [www.english.pitt.edu/undergraduate/plagiarism](https://www.english.pitt.edu/undergraduate/plagiarism).

(And if you want to collaborate with an AI, there are ways to do so without sacrificing your learning. [See below](#artificial-intelligence) for starters, but let’s talk!)

If you have any questions, don’t hesitate to ask, because Pitt takes a very hard stance on plagiarism. It could get you expelled. Here’s an excerpt from the official Policy on Academic Integrity, to give you the flavor:

*Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, from the February 1974 Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz or exam will be imposed.*

*A student has an obligation to exhibit honesty and to respect the ethical standards of the profession in carrying out his or her academic assignments. Without limiting the application of this principle, a student may be found to have violated this obligation if he or she: […]*

1. *Depends on the aid of others in a manner expressly prohibited by the faculty member, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.*
2. *Provides aid to another person, knowing such aid is expressly prohibited by the faculty member, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.*
3. *Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources.*
4. *Submits the work of another person in a manner which represents the work to be one's own.*
5. *Knowingly permits one's work to be submitted by another person without the faculty member's authorization.*

You have the right to a fair hearing, and I’ll talk to you before I talk to anyone else, but it’s far easier just to avoid plagiarism in the first place. All clear cases of deliberate plagiarism will be referred to the appropriate Dean for disciplinary action, including an Academic Integrity Board hearing. For the University’s full policy on Academic Integrity and the adjudication process for infringements, including plagiarism, go to <http://www.pitt.edu/~provost/ai1.html>.

## On Artificial Intelligence

In this class, you are responsible for the integrity and accuracy of anything you turn in; if you draw on an outside source, I expect you to provide a citation that would allow me and other readers to return to that source and understand its context. Note that so far, I haven’t said anything specific to AI: this is just a standard statement about academic honesty and courtesy.

In the case of a generative AI, including both large language models (LLMs) like GPT/ChatGPT, BERT, or Sudowrite and image generators like Stable Diffusion or Dall-E, an element of randomness means we can’t go back directly to the original and see the same thing you saw. Even so, the knowledge that you consulted such a model as part of your process adds important context to your work, much as a citation does, and our understanding of that context is further improved if you can share the prompt you submitted. (In some cases, it may even make sense to save the transcript, e.g. to make it available as an appendix or upon request.)

I do not believe LLMs spell the end of writing as part of education – for one thing, the epistemic process of trying to figure out what you mean by trying to put it in language is often the greatest benefit of writing in the first place (see [Perl](https://compcomm.commons.gc.cuny.edu/feltsense/part-one-what-is-felt-sense/); [Vee](https://compositionstudiesjournal.files.wordpress.com/2023/06/vee.pdf)), and LLMs’ outputs aren’t designed for that kind of learning. Working to find the right prompt, though, has some potential for writing-to-learn, and so does figuring out what *doesn’t* work for you in an LLM-generated response. These are still early days, and AI-assisted writing isn’t going away; rather, how to learn and teach writing alongside AI is an open question that I’m genuinely curious about.

Therefore, I will allow AI-assisted submissions in this class, provided that you agree to the following:

1. Along with your submission, you will acknowledge and name the AI tool you used, and describe what you used it for. If you are copying text or an image directly from the model’s output, include the text of your prompt in an appendix or footnote.
2. Whenever possible, you will avoid the temptation to accept a single default output, instead requesting multiple responses from the model and selecting or remixing among them. This will require you to draw on your own discernment and allow you to write reflectively about your choices.
3. You must recognize that LLMs are not search engines: they hallucinate and fabricate citation-like structures without regard to their actual existence – even when they come attached to hyperlinks. Any references, as well as article or book summaries, should be checked for accuracy.
4. The work you submit is ultimately your responsibility, and should serve your goals in light of your understanding of your task and your audience. Therefore, you should review and edit any AI-generated output to ensure you feel satisfied that it represents your views, your voice, and your learning goals.

I’m also happy to talk more about any of this!

## Feedback, Assessment, and Grades

*Much of the language below is adapted from Alison Langmead’s 2022 fall syllabus for DSAM 3000, if not the particular scholarly conversation I situate it within.*

As composition theorist Peter Elbow has written in a number of places (see especially his [“Ranking, Evaluating, and Liking”](https://www.jstor.org/stable/378503)), grades are a surprisingly crude way of measuring or producing learning: they reduce complex phenomena to a single letter or number, and thus obscure the differences between, say, public speaking skills and ability to support an argument. Some teachers might try to get around this by assigning percentages of their grades to particular skill-sets, but I find I can’t know, in advance, what any one of you will need to work on: I want us to be free to give more targeted feedback, and set more targeted goals, than any pre-set percentage allows us to do. As I see it, each of you is here to do more than you could before, not be better than anyone else. Grades distract from that, and distract from the particular reactions and suggestions that can help you improve and grow.

Assessment, though, is more than grading. Throughout the semester, you will be assessing your own work, through your [Mindful Practice Journals](file:///Users/MILLERB/OneDrive-UniversityofPittsburgh%20(Archive)/_BoxMigration/teaching/DSAM%203000/projects#mindful-practice-journal) and reflections on what you were aiming for and what you achieved; you will be offering feedback to each other at presentation time and in conversation; and I will be offering my own formative guidance, based on years in the profession, as you iteratively develop your projects. In short, you will have plentiful moments of evaluation, even as you will not have specific grades ranking your success on any particular assignment against some putative norm.

Nevertheless, at the end of the term, I will be required to submit letter grades to the Registrar. Instead of a fixed rubric or calculation, these **final grades will be based on your own self-assessment:** to the extent that you can point to evidence of *course engagement and learning*, you can succeed in this class, regardless of where your project stands in the grand scheme of projects.

I am more than happy to talk through what it means to produce this kind of self-assessment, with each of you individually or together as a group, but at the heart of it is **a reflection that looks both forward (what do I want to achieve?) and backward (what have I achieved?), recursively.**

One set of goals can come from me, in that I have requested specific types of course engagement and deliverables from you. These have all been chosen to guide you through the process of learning what it means to use digital computers mindfully in the context of the humanities and allied social sciences. In a way, my work requests aspire to be tools for learning in and of themselves, and can serve as signposts of worthwhile engagement. I have offered some metacognitive questions below to help you think through how the work of this course forms a coherent pedagogical point of view and set of structures for you to inhabit.

### **You can be confident that you are successfully working through this seminar by:**

* Contributing respectfully to our weekly topical conversations, whether in class or online.
  + Consider: *What is the purpose of seminar conversation? How do we learn from it? How do we balance speaking up, sitting back, branching out, and listening in, to produce the most effective learning environment for ourselves and others?*
* Completing the project iterations as described in the course plan, and on the schedule recommended.
  + Consider: *Why is iteration important? Why is the schedule important? Why can I be “not answering my question” and nevertheless succeeding in the context of this seminar?*
* Offering a content-rich, public-facing project site that you are proud to share with others.
  + Consider: *Why pride? Why do we share our findings publicly at this point in our (different) careers?*
* Offering cogent and professional presentations that stay within the requested time limit.
  + Consider: *Why is presentation to peers important? Why is the time limit important?*
* Writing two peer evaluations after each iteration is due, reflecting back what you notice and what you wonder about your peers’ projects.
  + Consider: *Why are these evaluations requested on top of in-class discussion? How can I help someone else improve when I am still unsure of what I am doing? How can evaluating someone else’s work help me improve?*
* Working at least 2-4 hours on your project every week, and documenting this effort in your Mindful Practice Journal.
  + Consider: *Why is consistency important? Why is documentation important? Why is so much self-reflection a part of this seminar?*

You will almost assuredly have other goals of your own! To the extent that these goals are Specific, Measurable, Achievable, Relevant, and Time-bound, you will have an easier time of articulating just how far you’ve come; but some immeasurable things are also very much worth pursuing, so feel free to name some of those, too.

We’ll talk more about how I’ll read your final reflections as we get closer to the end of the term. For now, just keep taking notes on your goals and your progress in your Mindful Practice Journals, so you’re more likely to have evidence to draw from.

# Available Resources at Pitt

NB: Additional resources can be found on the course site.

## Digital Scholarship Services at Pitt Libraries

<https://library.pitt.edu/digital-scholarship-services>. As their website says, DSS is "a front-end to the library's resources, expertise, and services in support of a broad range of digital and data-intensive scholarly activities. From designing a digital humanities project to making a data management plan for a grant application, [they]’re here to help." You can make an appointment for a consult on coding and computation; research data services; digital creation and stewardship; geospatial or textual data and analysis; and more. See especially their subscribe-able calendar of free [workshops](https://pitt.libcal.com/calendar/today/?cid=2274&t=d&d=0000-00-00&cal=2274&ct=26796,28278&inc=0) and/or [sign up for their newsletter](https://confirmsubscription.com/h/t/DF8BAC3FE84F3E2D) to get email updates and reminders.

## Take Care of Yourself

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep, and taking time to relax. Despite what you might hear, using your time to take care of yourself will actually help you achieve your academic goals more than spending too much time studying.

All of us benefit from support and guidance during times of struggle. If you or anyone you know experiences academic stress, difficult life events, or difficult feelings like anxiety or depression, I strongly encourage you to seek support. Consider reaching out to a friend, faculty, or family member you trust for assistance connecting to the support that can help. The University Counseling Center is here for you: call 412-648-7930 and visit their website at <http://www.studentaffairs.pitt.edu/cchome>.

### If you or someone you know is feeling suicidal, call someone immediately, day or night:

University Counseling Center (UCC): 412 648-7930

University Counseling Center Mental Health Crisis Response: 412-648-7930 x1

Resolve Crisis Network: 888-796-8226 (888-7-YOU-CAN)

Psychological Services and Sexual Assault Services (412-648-7930)

***Pitt Writing Center***

<https://writingcenter.pitt.edu/>. Though not every consultant will have experience in multimodal composing or digital media, some will; but more importantly, the Writing Center's emphases on process-oriented reflection and rhetorical thinking makes every consultant a useful sounding board for developing ideas, getting feedback from an outside reader, and getting organized for revision and reflection. It's a good idea to [plan for your visit](http://writingcenter.pitt.edu/undergraduate-services) and to make an appointment before you go.

# Assignment Schedule

Assignments are listed *on the day they are assigned*, rather than when they are due, to keep the page in chronological order. Readings should be completed, if possible, **by end-of-day Friday**, so you can post to our [discussion forum](https://github.com/benmiller314/dsam2023fall/issues%7D%7D). Exercises and presentations are due the following class meeting, unless otherwise specified, and given our early start time I recommend aiming to complete them *by 9pm the night before*.

Follow the links from the course website to individual class days for more info, including class notes and more complete homework instructions. **NB: This schedule is subject to revision based on our needs.**

## Outline of the semester:

| Week | Date | Lesson Title |
| --- | --- | --- |
| 1 | Mon, Aug 26 | Digital + Studies |
| 2 | Mon, Sep 02 | no class: Labor Day (setting up and setting out) |
| 3 | Mon, Sep 09 | GitHub, versioning, circulation |
| 4 | Mon, Sep 16 | Data: By whom? For what? |
| 5 | Mon, Sep 23 | Iteration 1: Sources |
| 6 | Mon, Sep 30 | Code: What is it? Why does it matter? |
| 7 | Mon, Oct 07 | AI: Machines learning to classify and predict |
| 8 | Mon, Oct 14 | no class: Fall Break (reflection and planning) |
| 9 | Mon, Oct 21 | Iteration 2: Processed |
| 10 | Mon, Oct 28 | Digital accessibility |
| 11 | Mon, Nov 04 | People’s choice 1 |
| 12 | Mon, Nov 11 | People’s choice 2 |
| 13 | Mon, Nov 18 | Iteration 3: And…? |
| 14 | Mon, Nov 25 | no class: Thanksgiving Break (digesting) |
| 15 | Mon, Dec 02 | People’s choice 3 |
| 16 | Mon, Dec 09 | Iteration 4: Presented |

## Options for People's Choice weeks include...

* Batch editing: regular expressions and pixel manipulation
* Critical code studies
* Data access and metadata standards
* Data exploration and transformation
* Data visualization
* Programming as an exploratory, epistemic process
* Teaching and generative models
* The physicality of the digital
* Topic modeling and distant reading

or something else you suggest (with enough lead time…)! We’ll vote asynchronously in week 8 and finalize in week 9, setting the agenda for weeks 11, 12, and 15.

### **Week 1: Mon, Aug 26 – Digital + Studies**

**Schedule a meeting with Ben** for some time next week (that isn’t Monday) to talk about possible sources/objects for you to process and present on. See the [office hours](https://benmiller314.github.io/dsam2024fall/office) page for how to claim a slot or request an alternative if the usual slots won’t work for you.

Before that meeting, ideally by this Friday, **watch**:

* Posner, Miriam. “How Did They Make That? The Video!” Miriam Posner’s Blog, April 17, 2014. <http://miriamposner.com/blog/how-did-they-make-that-the-video/>.

and **read**:

* Posner, Miriam. How Did They Make That? 29 Aug. 2013, <https://miriamposner.com/blog/how-did-they-make-that/>.
* Risam, Roopika, and Alex Gil. “Introduction: The Questions of Minimal Computing.” Digital Humanities Quarterly, vol. 16, no. 2, 2022, <http://www.digitalhumanities.org/dhq/vol/16/2/000646/000646.html>.
* EXT for eager readers:
  + Sample DSAM project reflections from years past
  + Murray, Janet H. “Affordances of the Digital Medium.” Inventing the Medium: Principles of Interaction Design as a Cultural Practice, The MIT Press, 2011, pp. 51–85. <https://ebookcentral.proquest.com/lib/pitt-ebooks/reader.action?docID=3339350&ppg=66>.
  + D’Ignazio, Catherine, and Lauren F. Klein. “7: Show Your Work.” Data Feminism, MIT Press, 2020, pp. 173–202. ProQuest Ebook Central, <https://ebookcentral.proquest.com/lib/pitt-ebooks/detail.action?docID=6120950>.

### **Week 2: Mon, Sep 02 –  No class: Labor Day** (setting up and setting out)

Meet Ben in [office hours](https://benmiller314.github.io/dsam2024fall/office) some time this week. Take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

To prepare for week 3:

* **install a plain-text editor** if you don’t already have one (e.g. [Pulsar](https://pulsar-edit.dev/) or [Visual Studio Code](https://code.visualstudio.com/)).
* **create a GitHub account** if you don’t already have one. Think about your username: it can, but need not, indicate your real name or match your other online profiles. (Pros and cons either way.)
* **install the**[**GitHub Desktop**](https://desktop.github.com/)**app** and any dependencies it recommends. (NB: This may take up to 20 minutes, so please don’t wait until the morning of class.)
  + NB: If you get an error saying it’s not an approved app, don’t worry: it’s safe. Instead of double-clicking to open the installer, right-click and choose “Open” to give yourself permission to open it anyway.

and **read**:

* Stolley, Karl. “The Lo-Fi Manifesto, v 2.0.” Kairos: A Journal of Rhetoric, Technology, and Pedagogy, vol. 20, no. 2, Jan. 2016, <https://kairos.technorhetoric.net/20.2/inventio/stolley/>.
* EXT for eager readers:
  + Stolley’s “[README for The Lo-Fi Manifesto, v 2.0](https://kairos.technorhetoric.net/20.2/inventio/stolley/readme/)”
  + Stolley’s notes on his earlier draft, “[Lo-Fi Manifesto, v 1.2](https://kairos.technorhetoric.net/20.2/inventio/stolley/1.2)”

### **Week 3: Mon, Sep 09 – GitHub, versioning, circulation**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

To prepare for week 4, **read**:

* D’Ignazio, Catherine, and Lauren F. Klein. Data Feminism, MIT Press, 2020. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/pitt-ebooks/detail.action?docID=6120950>.
  + “Introduction: Why Data Science Needs Feminism.” pp. 1–19.
  + “4. ‘What Gets Counted Counts.’ ” pp. 97-124.
* Onuoha, Mimi. On Missing Data Sets. 2016. 16 July 2024. GitHub, <https://github.com/MimiOnuoha/missing-datasets>.
* Schöch, Christof. “Big? Smart? Clean? Messy? Data in the Humanities.” Journal of Digital Humanities, Nov. 2013, <https://journalofdigitalhumanities.org/2-3/big-smart-clean-messy-data-in-the-humanities/>.
* Ghorayshi, Azeen. “No One Knows How Many L.G.B.T.Q. Americans Die by Suicide.” The New York Times, 1 June 2023. NYTimes.com, <https://www.nytimes.com/2023/06/01/health/lgbtq-suicide-data.html>.
* EXT for eager readers:
  + D’Ignazio and Klein. “3. On Rational, Scientific, Objective Viewpoints from Mythical, Imaginary, Impossible Standpoints.” Data Feminism, MIT Press, 2020. pp. 73-96.
  + Drucker, Johanna. “Humanities Approaches to Graphical Display.” Digital Humanities Quarterly, vol. 005, no. 1, Mar. 2011, <http://digitalhumanities.org/dhq/vol/5/1/000091/000091.html>.

and **watch**:

* Brown, AmyJo. “Building Your Own Data Set: A Journalist’s Approach.” What Are Digital Humanities?, 11 Nov. 2022, <https://cmu-lib.github.io/dhlg/project-videos/brown/>.

### **Week 4: Mon, Sep 16 – Data: By whom? For what?**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

For week 5, [**pre-record** a 5-minute presentation](https://benmiller314.github.io/dsam2024fall/projects#presentations-and-peer-review) on your independent project, which we can view in class and discuss. For this iteration, you should be able to answer the following:

* What sources/objects are you working with?
* What questions do you have about them?
* What are your long-term goals?
* What are your next steps?

NB: bring your own dongle, if you need one.

Optionally, schedule a meeting with Ben in [office hours](https://benmiller314.github.io/dsam2024fall/office) for early feedback as you build your presentation.

### **Week 5: Mon, Sep 23 – Project presentations, iteration 1: Sources**

Post **feedback for your partners** on their current project iteration.

In preparation for week 6, please **read**:

* Ford, Paul. What Is Code? If You Don’t Know, You Need to Read This, Bloomberg.com, <http://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/>.
  + Section 1: “The Man in the Taupe Blazer.”
  + [Section 6.5](https://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/#and-now-for-something-beautiful): “And Now for Something Beautiful.”
* Vee, Annette. “Introduction: Computer Programming as Literacy.” Coding Literacy, MIT Press, 2017, pp. 1–42, <https://doi.org/10.7551/mitpress/10655.003.0003>.
* Miller, Benjamin. “Chapter 17: The Pleasurable Difficulty of Programming.” Methods and Methodologies for Research in Digital Writing and Rhetoric: Centering Positionality in Computers and Writing Scholarship, Volume 2, edited by Victor Del Hierro and Crystal VanKooten, The WAC Clearinghouse; University Press of Colorado, 2022, pp. 159–83. <https://doi.org/10.37514/PRA-B.2022.1664.2.17>.
* Montfort, Nick. “Appendix A: Why Program?” Exploratory Programming for the Arts and Humanities, 2nd ed., The MIT Press, 2021, pp. 319–330, <https://mitpress.ublish.com/ebook/epah2e-preview/12629/1>.
* EXT for eager readers:
  + Montfort, Nick, Patsy Baudoin, John Bell, Ian Bogost, Jeremy Douglass, Mark C Marino, Michael Mateas, Casey Reas, Mark Sample, and Noah Vawter. “10: Introduction.” 10 PRINT CHR$(205.5+RND(1)); : GOTO 10, The MIT Press, 2012, pp. 1–17. direct.mit.edu, <https://doi.org/10.7551/mitpress/9040.001.0001>.

### **Week 6: Mon, Sep 30 – Code: What is it? Why does it matter?**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

In preparation for week 7, please **watch / read**:

* “Computer Scientist Explains Machine Learning in 5 Levels of Difficulty.” WIRED, YouTube, 18 Aug 2021. <https://www.youtube.com/watch?v=5q87K1WaoFI>.
* Newhauser, Mary. “What Is Generative AI? A Comprehensive Guide for Everyone.” GPTech, 26 June 2023, [https://www.gptechblog.com/](https://www.gptechblog.com/what-is-generative-ai-comprehensive-guide-beginners)
* Crawford, Kate, and Trevor Paglen. “Excavating AI: The Politics of Training Sets for Machine Learning.” 19 Sep 2019, [https://excavating.ai](https://excavating.ai/). what-is-generative-ai-comprehensive-guide-beginners</a>.
* Onuoha, Mimi and Mother Cyborg (Diana Nucera). “A People’s Guide To Tech: Artificial Intelligence.” Allied Media Projects, Aug 2018, <https://alliedmedia.org/resources/peoples-guide-to-ai>.
* Shane, Janelle. “An Exercise in Frustration.” AI Weirdness, 21 May 2024, <https://www.aiweirdness.com/an-exercise-in-frustration/>.
* Shane, Janelle. “When Algorithms Surprise Us.” AI Weirdness, 13 Apr 2018, <https://www.aiweirdness.com/when-algorithms-surprise-us-18-04-13/>.
* EXT: eager learners can read / watch the following:
  + Alammar, Jay. “ChatGPT Has Never Seen a SINGLE Word (Despite Reading Most of The Internet). Meet LLM Tokenizers.” YouTube, 26 Jul 2023. <https://www.youtube.com/watch?v=uSinkCeUg9U>.
  + Karpathy, Andrej. “State of GPT | BRK216HFS.” Microsoft Build 2023. YouTube, 25 May 2023. <https://www.youtube.com/watch?v=bZQun8Y4L2A>.
    - NB: at 42 minutes, this is long; the first 20 minutes go into some more detail on how large language models are trained and built up, and is perhaps the more DSAM-level portion; the second half is advice on how to work with models, e.g. through prompt engineering, and what may be coming next.
  + Kozyrkov, Cassie. “Introduction to ML and AI - MFML Part 1.” posted to YouTube 3 Oct 2021, but filmed in 2018. <https://www.youtube.com/watch?v=lYWt-aCnE2U>.
    - NB: another long video, and part of an even longer series. I recommend the following sections:
    - [from 16:13](https://www.youtube.com/watch?v=lYWt-aCnE2U&t=973s) to 34:45: The process of building a regression model and why that matters.
    - [from 39:42](https://www.youtube.com/watch?v=lYWt-aCnE2U) to 45:37: Why did AI start booming in the late 2010s?
    - [from 54:28](https://www.youtube.com/watch?v=lYWt-aCnE2U&t=3264s) to 1:07:05: When can you trust machine learning?
  + Cheung, Diana. “Demystifying Generative AI: Introducing the Underlying Technologies & Models of Generative AI.” Codesmith.io/Blog, Aug 30, 2023, <https://www.codesmith.io/blog/demystifying-generative-ai-introducing-the-underlying-technologies-models-of-generative-ai>.

### **Week 7: Mon, Oct 07 – AI: Machines learning to classify and predict**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

By Friday, look through the options for the three upcoming People’s Choice weeks, and register your preferences.

### **Week 8: Mon, Oct 14 –  No class: Fall Break** (reflection and planning)

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

In preparation for week 9, [**pre-record** a 5-minute presentation](https://benmiller314.github.io/dsam2024fall/projects#presentations-and-peer-review) on your independent project, which we can view in class and discuss. For this iteration, you should be able to look back through your journal to answer the following:

* What sources / objects are you working with? (Remind us or update us)
* What have you done with or to them?
* What have you learned in the process?
* What are your next steps?

NB: bring your own dongle, if you need one.

Optionally, schedule a meeting with Ben in [office hours](https://benmiller314.github.io/dsam2024fall/office) for early feedback as you build your presentation. Also optionally, you may want to read [section 6.2](https://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/#what-is-debugging) of Paul Ford’s What is Code?: “What is debugging?”

### **Week 9: Mon, Oct 21 – Project presentations, iteration 2: Processed**

Post **feedback for your partners** on their current project iteration.

In preparation for week 10, please **read / watch**:

* Eisenberg, David. “Digital Accessibility: What It Is and Why It Matters.” Perkins School for the Blind, 17 May 2021, <https://www.perkins.org/digital-accessibility-makes-the-world-a-better-place/>.
* Selections from the W3C Web Accessibility Initiative (WAI, <https://www.w3.org/wai>):
  + [“Accessibility Principles”](https://www.w3.org/WAI/fundamentals/accessibility-principles/) (Overview)
    - [Perception - hearing, feeling and seeing](https://www.w3.org/WAI/people-use-web/tools-techniques/perception/)
    - [Presentation - distinguishing and understanding](https://www.w3.org/WAI/people-use-web/tools-techniques/presentation/)
    - [Input - typing, writing, and clicking](https://www.w3.org/WAI/people-use-web/tools-techniques/input/)
    - [Interaction - navigating and finding](https://www.w3.org/WAI/people-use-web/tools-techniques/navigation/)
  + [“Web Accessibility Perspectives - Compilation of 10 Topics/Videos”](https://www.youtube.com/watch?v=3f31oufqFSM)
  + [How People with Disabilities Use the Web: Tools and Techniques](https://www.w3.org/WAI/people-use-web/tools-techniques/)
* Yergeau, M. Remi, Elizabeth Brewer, Stephanie L. Kerschbaum, Sushil Oswal, Margaret Price, Michael J. Salvo, Cynthia L. Selfe, and Franny Howes. “Multimodality in Motion: Disability and Kairotic Spaces.” Kairos: A Journal of Rhetoric, Technology, and Pedagogy, vol. 18, no. 1, Aug. 2013, <https://kairos.technorhetoric.net/18.1/coverweb/yergeau-et-al/index.html>.
* EXTs for eager readers:
  + D’Ignazio, Catherine, and Lauren F. Klein. Data Feminism, MIT Press, 2020. ProQuest Ebook Central.
    - [3: “On Rational, Scientific, Objective Viewpoints from Mythical, Imaginary, Impossible Standpoints”](https://ebookcentral.proquest.com/lib/pitt-ebooks/reader.action?docID=6120950&ppg=86)
    - [5: Unicorns, Janitors, Ninjas, Wizards, and Rock Stars](https://ebookcentral.proquest.com/lib/pitt-ebooks/reader.action?docID=6120950&ppg=138)
  + W3C Web Accessibility Initiative (WAI), [“Stories of Web Users”](https://www.w3.org/WAI/people-use-web/user-stories/)

### **Week 10: Mon, Oct 28 – Digital accessibility**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

Readings / resources for next week are t.b.d. based on the vote!

### **Week 11: Mon, Nov 04 – People's choice 1**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

Readings / resources for next week are t.b.d. based on the vote!

### **Week 12: Mon, Nov 11 – People's choice 2**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

In preparation for week 13, [**pre-record** a 5-minute presentation](https://benmiller314.github.io/dsam2024fall/projects#presentations-and-peer-review) on your independent project, which we can view in class and discuss. For this iteration, you should be able to look back through your journal to answer the following:

* What questions are you pursuing by processing your sources? (Remind us or update us)
* What answers do you have so far, however tentative?
* What are your next steps to deepen your questions and answers?
* What have you learned in the process?

NB: bring your own dongle, if you need one.

Optionally, schedule a meeting with Ben in [office hours](https://benmiller314.github.io/dsam2024fall/office) for early feedback as you build your presentation.

### **Week 13: Mon, Nov 18 – Project presentations, iteration 3: And...?**

Post **feedback for your partners** on their current project iteration.

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

### **Week 14: Mon, Nov 25 –  No Class: Thanksgiving Break** (digesting)

Readings / resources for next class are t.b.d. based on the vote. Have a great break!

### **Week 15: Mon, Dec 02 – People's choice 3**

Continue working on your project, and take notes in your [Mindful Practice Journal](https://benmiller314.github.io/dsam2024fall/projects.html).

In preparation for our final class, **pre-record** a now-**10**-minute presentation on your independent project, which we can view in class and discuss. For this iteration, you should be able to look back through your journal and your ***public-facing project site*** to answer the following:

* What materials (sources, processing steps, arguments) are you providing on your site?
* How have you prepared your materials for presentation to a public readership?
* When you look back at your initial goals, where have you ended up?
* What have you learned in the process that could apply to future projects?

NB: bring your own dongle, if you need one.

Optionally, schedule a meeting with Ben in [office hours](https://benmiller314.github.io/dsam2024fall/office) for early feedback as you build your presentation.

### **Week 16: Mon, Dec 09 – Project presentations, iteration 4: Presented**

Enjoy the break!