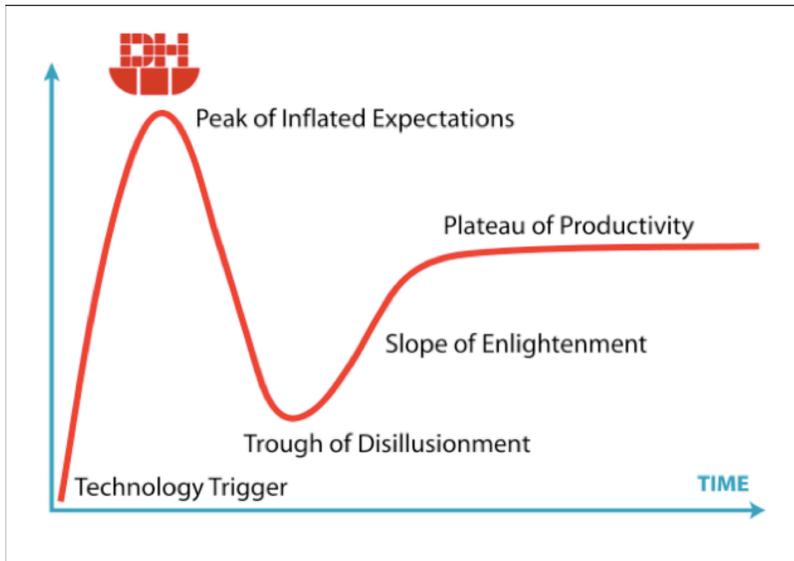


Digital Humanities in Practice

WEEK 4a: PLANNING & MANAGING DIGITAL PROJECTS



Before launching any project, it's important to consider how you are going to PLAN and MANAGE your work. You will need to identify what your goals are and what the scope of the work is. We'll discuss planning an appropriate time frame, accountability issues, teamwork, funding and documentation. We'll look at some broad project management issues and work on developing a project charter and project one pager for your quarter's work.

Preliminary Reading

1. Paige Morgan, '[How to get a Digital Project off the Ground](#)' *HASTAC* blog, June 6 2014.
2. [Collaborators' Bill of Rights](#)
3. Lynda Gratton & Tamara J. Erickson, '[Eight Ways to Build Collaborative Teams](#)', *Harvard Business Review*, November 2007.
4. Stan Ruecker & Milena Radzikowska, '[The Iterative Design of a Project Charter for Interdisciplinary Research](#)', *DIS '08: Proceedings of the 7th ACM conference on Designing interactive systems*, February 2008, <https://doi.org/10.1145/1394445.1394476>
5. Jennifer Guiliano & Simon Appleford, '[Building your First Work Plan](#)', www.devdh.org

6. Large Project Management (DHSI Coursepak compiled by Lynne Siemens - a lot of articles here, which you can use as a reference moving forward).

Project Management from start to finish

Sarah Storti and Brooke Lestock for UVa Scholars' Lab Praxis Program, 2011-12

1. Decide whether the project should happen.

- (Does it make a worthwhile scholarly or technical intervention? Is it sustainable? What resources do we have/need?)

2. Devise a clear project workplan.

- A good workplan is a statement of deliverables with a path to completion: a "necessary fiction" that accounts for both the intellectual vision and reality.
- Putting together a workplan involves making frank assessments of the skills/resources available and getting honest estimates from team members.
- The workplan must be flexible, but only changed for good reasons.
- The workplan must lay out clear, core deliverables, and be broken down into small, manageable chunks.

3. Delegate tasks and maintain momentum.

- Let team members help define how they will be involved.
- Let the person taking on an assignment help to set the due date.
- As PM, take responsibility for making final decisions when necessary.

4. Manage communication.

- Schedule meetings and keep them on track. Meetings should include regular check-ins with the whole team as well as smaller, task-focused group meetings.
- Each meeting should address:
 - what has been done,

- what needs to be done,
- and what may be holding people back.
- The PM is responsible for devising a clear, easy way to track progress and work.
- Team members should report regularly: in public, to self, and to partners.

The PM's main goal is to keep all team members on task, and to deliver what was promised.

Basic Tools for Project Management

- [Basecamp](#) (free educational account)
- [Trello](#)
- [Airtable](#)
- Gantt charts (Google Sheets Add On)
- [Slack](#)
- Google Drive/Microsoft OneDrive/Dropbox
- [Github](#)
- Microsoft Project

Data Management

The organizational structure of your data can help **secondary users** find, identify, select, and obtain the data they require. As you work through the material for this section, keep these questions in mind:

How should you source your data?

Why should you organize your data?

How should you organize your data?

In which format should you organize your data?

How should you name your files?

When developing a digital humanities project, planning and building sustainably will mitigate the risk that your work becomes inaccessible, trapped in an obsolete platform within a few short years. While your work on your class project may not extend beyond the timeframe of this course, you will need to develop an awareness of best practices for project planning and managing the data that you work with and present online or in other digital formats. The resources below will give you an introductory framework for:

- developing a Data Management Plan
- assessing the risks that are associated with building a digital project.

[Start with UW Libraries' Data Management Guide](#)

Additional resources:

[Write a Data Management Plan](#), MIT Libraries

[DMPTool](#) (log in with your UWID)

<http://www.data-archive.ac.uk/create-manage>

Risk Assessment

In working with digital data, here is a list of risks to consider and plan for in building a DH project:

- **Media Failure.** All storage media must be expected to degrade with time, causing irrecoverable bit errors, and to be subject to sudden catastrophic irrecoverable loss of bulk data such as disk crashes or loss of off-line media.

- **Hardware Failure.** All hardware components must be expected to suffer transient recoverable failures, such as power loss, and catastrophic irrecoverable failures, such as burnt-out power supplies.
- **Software Failure.** All software components must be expected to suffer from bugs that pose a risk to the stored data.
- **Communication Errors.** Systems cannot assume that the network transfers they use to ingest or disseminate content will either succeed or fail within a specified time period, or will actually deliver the content unaltered. A recent study "suggests that between one (data) packet in every 16 million packets and one packet in 10 billion packets will have an undetected checksum error".
- **Failure of Network Services.** Systems must anticipate that the external network services they use, including resolvers such as those for domain names and persistent URLs, will suffer both transient and irrecoverable failures both of the network services and of individual entries in them. As examples, domain names will vanish or be reassigned if the registrant fails to pay the registrar, and a persistent URL will fail to resolve if the resolver service fails to preserve its data with as much care as the digital preservation service.
- **Media & Hardware Obsolescence.** All media and hardware components will eventually fail. Before that, they may become obsolete in the sense of no longer being capable of communicating with other system components or being replaced when they do fail. This problem is particularly acute for removable media, which have a long history of remaining theoretically readable if only a suitable reader could be found.
- **Software Obsolescence.** Similarly, software components will become obsolete. This will often be manifested as format obsolescence when, although the bits in which some data was encoded remain accessible, the information can no longer be decoded from the storage format into a legible form.
- **Operator Error.** Operator actions must be expected to include both recoverable and irrecoverable errors. This applies not merely to the digital preservation application itself, but also to the operating system on which it is running, the other applications sharing the same environment, the hardware underlying them, and the network through which they communicate.

- **Natural Disaster.** Natural disasters, such as flood, fire and earthquake must be anticipated. Other types of threats, such as media, hardware and infrastructure failures, will typically manifest then.
- **External Attack.** Paper libraries and archives are subject to malicious attack; there is no reason to expect their digital equivalents to be exempt. Worse, all systems connected to public networks are vulnerable to viruses and worms. Digital preservation systems must either defend against the inevitable attacks, or be completely isolated from external networks.
- **Internal Attack.** Much abuse of computer systems involves insiders, those who have or used to have authorized access to the system. Even if a digital preservation system is completely isolated from external networks, it must anticipate insider abuse.
- **Economic Failure.** Information in digital form is much more vulnerable to interruptions in the money supply than information on paper. There are ongoing costs for power, cooling, bandwidth, system administration, domain registration, and so on. Budgets for digital preservation must be expected to vary up and down, possibly even to zero, over time.
- **Organizational Failure.** The system view of digital preservation must include not merely the technology but the organization in which it is embedded. These organizations may die out, perhaps through bankruptcy, or their missions may change. This may deprive the digital preservation technology of the support it needs to survive. System planning must envisage the possibility of the asset represented by the preserved content being transferred to a successor organization, or otherwise being properly disposed of. For each of these types of failure, it is necessary to trade off the cost of defense against the level of system degradation under the threat that is regarded as acceptable for that cost.

adapted from Rosenthal, David S. H., et al. "[Requirements for Digital Preservation Systems.](#)" *D-Lib Magazine*, vol. 11, no. 11, 2005, doi:10.1045/november2005-rosenthal.

Additional reading:

Bailey, Jefferson. *I Review 6 Digital Preservation Models So You Don't Have To*, 2014, www.jeffersonbailey.com/i-review-6-digital-preservation-models-so-you-dont-have-to/

[Digital Preservation Handbook](#), *Digital Preservation Coalition*

Tips for choosing a File Format

Pick a file format that's less likely to become obsolete.

- Open standards (so not owned by any particular corporation), not patent-encumbered
- With at least one open-source reader/writer
- In broad use
- As high-quality (whatever that means given the medium) as practical

Key point: you may need two copies!

- One for access/use, one preservation master
- Make the preservation master first! The other is derivable.

Backing up your data

The 3 - 2 - 1 backup strategy is one which is widely recognized as being effective:

3 – Keep 3 copies of any important file: 1 primary and 2 backups.

2 – Keep the files on 2 different media types to protect against different types of hazards.

1 – Store 1 copy offsite (e.g., outside your home or business facility).

Example: I have a favorite photo of my dog with a file name of woody.jpg that I want to preserve. I have a copy on my laptop (primary), and I keep a copy in my Dropbox account (Cloud storage, offsite, backup #1). I also backup to an external hard drive every Sunday (backup #2, second type of media).

Paul Ruggiero and Matthew A. Heckathorn, 'Data Backup Options', *Carnegie-Mellon University for the United States Computer Emergency Readiness Team (US-CERT)*, 2012

In Class Activity Week 4a

This session, you'll have the opportunity to discuss and develop a preliminary Project Charter, and Project One Pager which you'll be using to guide your research and StoryMap development this quarter. You'll also spend a little time formulating a draft Data Management Plan for the materials you gather.

Developing a Project Charter

Once you have designated a Project Manager, they will be responsible for finalizing and overseeing the Charter, which will be included in the final project presentation.

Overview and Purpose

Even if you think everyone in your group is on the same page, it's still a really good idea to have a discussion about expectations, ways of working, and even pet peeves. Think of a charter as an excuse to have a healthy discussion.

1. Choose three words to describe the spirit in which your group will work together.
2. How will you communicate with each other (e.g., text messaging, email, Google group, Trello, etc.)?
3. Where will you store your files (e.g., Dropbox, Google Drive, server, Github etc.)?
4. When you work on a document collaboratively, how will you ensure that you don't overwrite each other's changes?
5. How often will you meet outside of class? Where will you meet? Do you need a regular meeting time? If you'll schedule meetings as necessary, what days and times are generally good for people?
6. When are people planning to be out of town or especially busy? How can you work around this?
7. Assign the following roles to project member(s). Please note that no single team member is responsible for any of these roles; rather, the specialist coordinates activity related to this work and assigns tasks to team members. If your team has more than six members, multiple people may be assigned to one role. If your group has fewer than six members, please combine two roles.

1. **Project Manager:** Pays close attention to schedule and milestones. Alerts the team to possible roadblocks or time-crunches. Ensures that communication among team members is efficient and harmonious. Keeps track of all project documentation. Takes notes at meetings. Communicates team needs (for example, additional training on a tool) to the professor, TA and/or IT Assistant. Communicates with subject-matter expert. Submits milestones on time via Canvas -
 2. **Web Specialist:** Oversees the design and structure of the site on Omeka. Works with the CMS (or HTML files) to ensure that the site performs to the team's specifications. Installs any required updates to the CMS. Archives the project and submits the files to the professor by the end of the quarter.
 3. **Data Specialist:** Oversees the cleaning, refining, and augmenting of the group's dataset. Teaches other team members how to use OpenRefine. Ensures the data is standardized, usable, and well-formatted.
 4. **Mapping Specialist:** Oversees the project's maps. Geolocates data. Learns how to use (and teaches teammates how to use) the appropriate tools. Fine-tunes map display. Adds maps to site.
 5. **Data Visualization Specialist:** Oversees the project's data visualizations. Ensures that data is in the right format. Learns how to use (and teaches teammates how to use) the appropriate tools. Fine-tunes data visualizations and adds them to site.
 6. **Content Specialist:** Oversees the authoring of the site's main narrative and ensures that the data visualizations and maps integrate neatly with the written content. Writes section headers and captions. Obtains necessary images and embeds them in the site. Oversees the creation of the "About" page.
8. Do all decisions need to be unanimous, or is "majority-rules" OK?
 9. How will you prevent meetings from going off-track?
 10. What are group members' pet peeves from previous collaborations? How will you avoid these?
 11. What will happen to the project when you're done with it? Will you maintain it, or let it expire?

Here is a more formal [Sample Project Charter Template](#) for ContentDM/Omeka. *Source: Utah State University*

Developing a Project One-Pager

This document will be a ‘work in progress’ for the next couple of weeks as you get to grips with the data and the scope of the work. A copy of this document will be included in the Final Project. Look at the example to give you a sense of what information you’ll be including.

1. Project Name
2. Objective Statement
3. Requirements
4. Out of Scope
5. Team
6. Schedule

It’s ok to change/edit the document as the scope of the work becomes clearer over the next couple of weeks.

Developing a Data Management Plan

How will you back up your work?

Choose at least three of the risks listed in the Risk Assessment section above, which you consider relevant for the material you are working with. Discuss strategies for dealing with these risks in the planning stages of your digital project work.

How will you ensure the (hypothetical) long-term sustainability and accessibility of your project and the data you are collecting?