



Digital Scholarship and the future of cross-disciplinary work in research

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Key Points

- **Preserve, share, visualise**

Collecting data with the goal of preserving, sharing and visualising it is important to data management.

- **Research as a cycle**

There are research products that happen throughout the cycle that should be published, shared, and disseminated.

- **Cross-disciplinary research**

The future of research: disciplines will matter less and the data collected will matter more.

About Micah

I'm a librarian and I work at Florida State University and did a Master's degree in American Studies. A lot of my job is thinking about technology infrastructure, human infrastructure, and how we support digital scholarship on campus. I consider myself a researcher in that space. The type of work that I do, the things that I put on figshare, the blogging I do, how I use Twitter - all of that stuff, for me, is part of my research but it also happens to be part of my job.

Most recently, a lot my work has been focused around what digital scholarship is and what it means. It's a big blanket term that a lot people are using in a lot of different ways. I've been writing and researching and using figshare and other platforms to share what I think digital scholarship is and will be in the next couple of years, including things like data management, especially digital humanities and academic publishing.

Background

During my studies, I was researching subcultural music in America, specifically in Florida. If there were data I was collecting, it was things like print zines, 7" records, cassette tapes, mixtapes, and forums people used to post on. At the time, back in 2007, I wasn't thinking this way at all. If you asked me then I would have said it's primary-source material.

What I've done over the years is continually think back to my research and what I would have done differently if I were doing it now. One of the first things is to consider it as data and to think about how I can collect it with the goal of preserving, sharing and visualising it. A lot of what I did was geolocated - all the different points where music was happening in Florida. I should have made a map of that and put some audio clips or links to videos in.

How figshare helps me be a better researcher

The thing that I value most about figshare - and the reason that I continue to use it - is the automatic DOI assignment. I'm really interested in thinking of a cycle of publishing. There are research products that happen throughout the research cycle that should be published, shared, and disseminated. What figshare allows me to do is, as I'm thinking about the cycle of my research, I should be able to share, get credit, disseminate and be cited for all the research products that happen during that cycle.

For example, yesterday, I was working with my colleague, Sarah Stanley, who is my assistant digital scholarship coordinator. We posted a periodic table of digital research tools. It's barely an idea, but it's something we're playing around with as an outreach tool for talking with people who might be interested in digital humanities. It helps them understand that LinkedIn and Academic.edu are sort of related in some way and ORCID is related over here to something else.

“ There are research products that happen throughout the research cycle that should be published, shared, and disseminated. ”

The biggest data management challenges for researchers

When it comes to data management, I think researchers struggle the most with not knowing what it is or how to do it. It's not a big leap for them to say, "Okay, so you're telling me I need to be more efficient about how I'm naming my files, backing them up, thinking about accessibility, and the long-term storage and preservation". I'd say it's an easier jump for people in the harder, harder sciences

like physics and chemistry because they've had to rely on bigger data for longer periods of time for these long projects. But in the softer hard sciences and social sciences, I think it's a newer concept.

What we learn most often when getting in a conversation with someone about a reluctance to share sensitive data is that they're not so opposed to sharing the data, they just want to make sure that the people are protected if they're working with human subjects.

There are easy ways to do that - anonymising or using unique identifiers (a string of numbers rather than people's names). Going into the project knowing that the data will be shared changes some of the decisions that you make at the beginning.

One of the biggest concerns that always comes up is the scooping. If I release my data, I'm going to be scooped and my three year project is going dead in the water.

The image shows a periodic table of digital research resources. The table is organized into groups and periods, with each cell containing a symbol, a name, and a brief description. The groups are color-coded and labeled on the right side of the table.

Group	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
Sharing your research	Dn Digital Twitter	Dr Digital Research					
Managing your research	Tw Twitter	Pp Peer-to-Peer	V Video	W Web	Wp Web Publishing		
Digital Humanities tools	Mc Media Commons	Oc Open Commons	Pm Project Metadata	Ac Academia	N Network	Mt Media Tools	Dp Digital Publishing
Primary source finding	Ae Archival Explorer	Z Zotero	G Google	Jx JSTOR	Mw Museum World	DI Digital Image	Ht Historical Text
Low barrier-of-entry DH tools	Rg ResearchGate	Fs Flickr Commons	Dt Digital Text	Tr Twitter	Gd Google Docs	Pd Public Domain	Md Media Commons
Content management and publishing systems	Me Media Commons	Gh Google	Ev Eprints	Bz Blogs	Os Open Source	Hp Hypermedia	Or Open Research
The languages and the not-quite-so-common	Tei Text Encoding Initiative	Xs XML Schema	Py Python	Ma Math	Ba Biology		
	Rs Research	J JSTOR	R Research	Rb Research	Un University		

Periodic Table of Digital Research Resources

I totally understand that concern and I think there are a lot of times when that's a valid concern, but I also think that there's a lot of fear that is instilled in people at graduate school about staking your claim in the field. If you share something really interesting, then you're basically giving away your ticket into the profession. I don't know if that fear is always founded and I think that we're moving into a

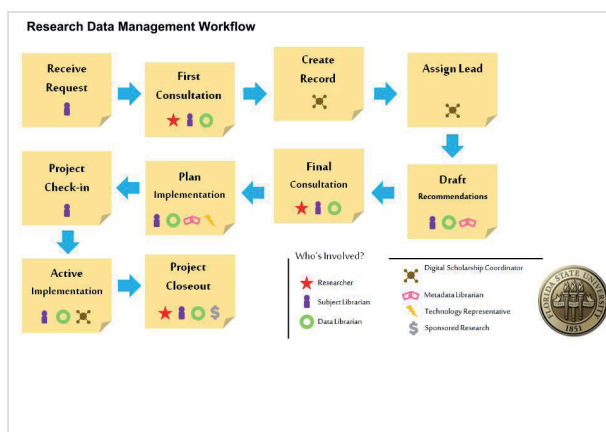
deeper, deeper sharing economy, especially around data. That fear has to just go away. It isn't really productive for the advancement of science. The purpose of what people are doing in these labs is to share and to change and to involve and so being afraid of sharing is not productive in that sense. But that's a culture change and it will take time.

The future of data

What I hope we'll see is a lot more cross-disciplinary work. What I hope is that if data is the bottom line, we can all talk about the work we're doing, the things we're collecting, and the things we're producing as having some characteristics in data.

What does that allow for working across disciplines? Not interdisciplinary, but cross-disciplinary - where disciplines start to matter much less and where I can talk more about the work that I'm doing and the type of data I'm collecting rather than my field. That could be a really fun world.

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