Open Stacks: Making DH Labor Visible

By Laura Braunstein
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Laura Braunstein is the Digital Humanities Librarian at Dartmouth College and co-edited Digital Humanities and the Library: Challenges and Opportunities for Subject Specialists (ACRL 2015).

Last June, a group of librarians, technologists, and scholars met at Middlebury College in Vermont to think about how to move forward on a proposed network, the Digital Liberal Arts Exchange, that would support digital humanities scholarship and teaching across institutional boundaries. There was much discussion, as we looked out over the Green Mountains on a perfect early summer day, of the particular stresses on library infrastructure when it came to supporting,
leading, and engaging with digital projects, in contrast to how libraries support traditional humanities scholarship. At one point, someone noted that the conversation was drifting back toward the tired dichotomy of “hack” and “yack”—that is, DH as coding and making things versus DH as critique of digital culture. I suggested that we might think about a third term—“stack”: the often invisible technological, social, and physical structures within which scholarship is produced and disseminated. Since that meeting, I’ve been considering different concepts of “stack” in relationship to DH as models for these structures of labor. I’ve also found myself having more and more conversations—at work, at conferences, on social media—about how exposing DH infrastructure (in terms of how it supports both making/”hack” and thinking/”yack”) can reveal the conditions that make all kinds of scholarship possible.

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In this post, I would like to “browse” the DH stack through three different frames: first, the technology stack of globalized computing; second, the social stack that manifests as institutional infrastructure; and finally, the physical library stacks that are a synecdoche for the information architecture that arranges scholarship. I’m curious to explore what these three frames—technological, social, and physical—could offer in terms of different ways to understand and reveal DH labor in the academy. My thoughts here build upon both Shannon Mattern’s idea of library as infrastructure and David Weinberger’s idea of library as platform. Rather than thinking of the library itself as an infrastructure, platform, or stack, I would like to consider what—and who—these concepts hide. As I’ve observed elsewhere, the people who “hack” and “yack” can’t work without the people in the “stack” (or without the people in the library stacks). At a time of political crisis, when the core values of libraries and access to knowledge are being challenged, we need to take responsibility for showing what we do. DH librarians, whose highly collaborative work is dedicated to social justice and public engagement, may be one particularly vital community of practice for exposing the changing conditions that create knowledge. How do we make labor in the “stack” visible?
The Technology Stack

Benjamin Bratton, in *The Stack: On Software and Sovereignty* (MIT, 2015), suggests that we think of the vertically integrated organization of global computing as a more pervasive version of the software stack, whereby a web application, like the WordPress platform for this blog, runs on top of a database that runs on top of an operating system (which runs on top of the hardware). Bratton’s global Stack is totalizing: it rises from raw materials mining at the bottom to hardware manufacture as the next layer, and thence upward from network infrastructure to web programming to user interface design to tech support. It has emerged as “an accidental megastructure, one that we are building both
deliberately and unwittingly and is in turn building us in its own image.”¹ This is the metastructure of globalization, whereby computing networks transcend and surpass national boundaries and identities. The Stack is not just a new technology, but operates as “a scale of technology that comes to absorb functions of the state and the work of governance” (kind of like the Matrix).² What Bratton calls the Stack as megastructure also shapes (and perhaps defines) the globalized university, in that basic internal services, such as communication, record keeping, and financial management have been outsourced to cloud-based enterprise systems. In turn, research libraries within this megastructure operate in an economy that deemphasizes (and sometimes discards) ownership of local collections in favor of access to licensed resources that are facilitated by institutional relationships with multinational corporations. Yet—like the fish who asks “what is water?”—most scholars are unaware of the extent to which their work, professional interactions, and finances are imbricated with the global technology Stack.

How does DH fit within this megastructure? According to some critics, DH is part of the problem of the neoliberal university because it privileges networked, collaborative scholarship over individual production. If creating a tool (hacking) or using computational methods has the same scholarly significance as writing a monograph, then individualized knowledge pursued for its own sake, the struggle at the heart of humanistic inquiry, is devalued. Yet writing a book always depended on invisible (gendered) labor in the academy. Word processing, library automation, and widespread digitization are just three examples of the support labor for traditional scholarly work that Bratton’s globalized technology Stack has absorbed. (And we know that the fruits of that labor are in no way distributed equitably.) What has changed in the neoliberal university is that the humanities scholar becomes one more node in a knowledge-producing system. Does it matter, then, whether DH work produces ideas or things, critics say, if all are absorbed into a totalizing system that elides the individual scholar’s privileged position? This is of course a vision of scholarship that is traditionally specific to the humanities; lab science and the performing arts, for example, have always been deeply collaborative (but with their own systems of privilege and credit).

The Social Stack

We may find ourselves comparing irrational institutional arrangements because all academic institutions are absorbed by the supposed rationality of the technology stack, but this is not the most productive way to understand the social conditions of academic labor.

If Bratton’s Stack is characterized by a globalizing rationality, the social infrastructure of the university is highly irrational, as Alan Liu discusses. What Liu calls the field of “critical infrastructure studies” could “‘see through’ the supposed rationality of organizations and their supporting infrastructures to the fact that they are indeed social institutions with all the irrationality that implies.” Institutional arrangements of DH are often social and contingent (in the very concrete sense that many who work in DH—graduate students, postdocs, people in grant-funded term positions—are classified as contingent labor). Many DH programs, initiatives, and teams have arisen organically out of social connections rather than centralized planning. Understanding contingency can transcend the “but it’s not like that where we are” arguments that often get in the way of sharing information and practices in order to improve the working (and thinking) lives of actual people. As an example: the discourse of “center envy”—by which the speaker positions herself in comparison to a colleague at another institution who has more resources and can ostensibly accomplish more. If only we had more resources, a physical center, dedicated programmers, graduate students, postdocs, grants—the myth of scarcity shapes so much of how we think of DH inhabiting our institutions. Perhaps there’s no idealized arrangement for DH that would transcend local cultures; certain institutional configurations, like the small liberal arts college, may indeed be richer and more equitable environments for producing DH work. We may find ourselves comparing irrational institutional arrangements because all academic institutions are absorbed by the supposed rationality of the technology stack, but this is not the most productive way to understand the social conditions of academic labor.

Parallel to Liu’s discussion, Martin Paul Eve has recently argued in the context of open access publishing that the challenges we face in both supporting and crediting scholarship are not technological but social. When infrastructure is understood as an irrational social formation, emotional labor tends to compensate for a perceived lack of resources. Scholars who are used to the invisibility of traditional library services, for instance, find that digital projects expose hierarchies and bureaucracies that they don’t want to negotiate or even think about, and the DH librarian or one of her colleagues steps in to run interference. Why can’t the dean of libraries just tell that department to create the metadata for
my project? After all, they already create metadata for the library’s systems. Why can’t web programming be a service you provide to me like interlibrary loan? I thought the library was here to support my scholarship. Why can’t you maintain my website after I retire—exactly the way it looks and feels today, plus update it as technology changes? In some conversations, these questions may be rhetorical; it may take emotional labor to answer them, but doing so exposes the workings of the library’s infrastructure—it's social stack.

The Physical Stack

Scholars often presume that because libraries acquire, shelve, and preserve the print books that they write, that the same libraries will acquire, shelve (or host), and preserve digital projects. In her volume *Bookshelf* (Bloomsbury, 2016) for the *Object Lessons* series, Lydia Pyne describes how the cast-iron bookstacks manufactured by Snead & Co. around the turn of the twentieth century transformed library architecture and services. Standardized shelves enabled libraries to house more on-site collections, which in turn allowed open-stack browsing. Cast-iron stacks were the literal infrastructure that held up buildings, as the [New York Public Library infamously discovered](https://en.wikipedia.org/wiki/New_York_Public_Library) when it proposed to remove book stacks from its flagship Fifth Avenue location. If the university is what Shelby Foote apocryphally called “a group of buildings gathered around a library,” then the library might be a building gathered, or built around—out of—book stacks. Book stacks literally undergird (in the sense that a bookshelf is a small girder) the modern university.

Where are the stacks for a digital project? What does the architecture of the physical stacks—the core collections—suggest about how we might arrange (or derange) our digital scholarship? While libraries might be the organizations on campus best suited to arrange, acquire, and preserve digital scholarship, not all scholars think so, if repository participation rates are any evidence (and they might not be). Scholars may be extrapolating from their experiences with commercial ebook and journal publishers, and we can’t blame them for some apprehension. If publishers can revoke access to digital material at any time, libraries must resist to insure the free exchange of information, and advocate for alternative scholarly economies. As Pyne discusses, digital rights management is the new “chain” that secures books to shelves; unlike the chains that bound medieval codices, “digital chains are just more difficult to see.” As with Bratton’s technology stack that absorbs local decision making and curation of collections, digital chains obscure the agency of librarians and scholars.

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Speaking out about the very real conditions under which digital scholarship is produced and accessed can also reveal long histories of labor inequities in the academy. Thinking about stacks—technological, social, physical—as frames is not a foolproof approach to making this labor visible, nor do my conceptualizations lack inconsistencies. My thoughts are intended to open a conversation, here on *dh+lib*, on social media, and at conferences and in further publications. And while DH may be particularly generative, as a community of practice, to facilitate these conversations, we are by no means the only ones doing so (or who should be doing so). Making the digital stacks transparent and visible—as visible to library users and as fundamental to our libraries’ infrastructure as cast-iron book stacks are—should be our responsibility as librarians. Not because we need yet another responsibility, but because we are uniquely positioned to interpret the rapidly changing landscape of digital scholarship for all those with whom we collaborate.

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