Open Source in Open Access Environments: Choices and Necessities

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In April, I will teach what I believe will be the first stand-alone Intro to Digital Humanities course at a community college (CC) in the Pacific Northwest—maybe the first such course at a CC in the country. I call my course "This Digital Life: Reading, Writing and Culture in a Digital Age," because my students don't know what "digital humanities" is.[i] It will be an online course, which is a challenge in open-access environments where students are often underprepared for the discipline and self-motivation of online exchange. In this course, I will introduce my CC students to a way of thinking about and comprehending the forces around them—the forces that Alan Liu calls the "great postindustrial, neoliberal, corporate and global flows of information and capital" (Liu 491). Community college students' lives are immersed in precarity wrought by these flows; only the grittiest of them will overcome the bleak economic prospects of working class struggle. Comprehending such forces is, to my mind, one of the most important learning outcomes I can imagine for them.

Along the way, I hope to introduce my students to the methods and ethos of the larger field of DH. But what are the minimal computing coordinates for CC students? And where does open source fit in an open access environment? I hadn't really thought of this before reading Alex Gil's and Jentery Sayers' definitions of "minimal computing;" I am unsure how to use Raspberry Pi and I can barely work with Markdown templates. I do use whatever tools are available and we'll read whatever open educational resources we can find. Perhaps, following Gil and Ernesto Oroza, my community college DH course will follow a kind of "architecture of necessity." The *surface* features of my course are not strictly "minimal," but I believe that they share deep *structural* affinities to the GO::DH values of maximum access and longevity: My students might *read* Gil's and Sayer's pieces but they will likely *write* about them using Google or Word on their laptops and email me using Outlook—transgressing minimal computing principles at every keystroke. For these *definitions* of minimal computing themselves point to a set of assumptions for humanistic computing that are worth considering in CC students' digital lives.

For the past several years, you could say that I've practiced not "minimal" computing but what Roopika Risam calls "micro DH." Since 2012, I have embedded whatever I could invent or learn well enough to teach in all my writing and literature courses. I have relied on the generosity of the DH community who share their ideas and assignments online: I adopt and adapt from Ryan Cordell, Katherine Harris, Bridget Marshall, Matt Gold, Jesse Stommel and many others. I create "Readers Digest" versions of posts by Ted Underwood and Dan Cohen so that my students can appreciate the cool factor of big data without slamming up against skill barriers to data mining;

and then I send students to Wordle or Voyant so they can work the magic themselves. My students dive into archives and annotate texts using Google docs. Sometimes we "break" Google or Twitter because our computer lab is equipped with lame machines and the systems crash. The Computer Help Desk folks are so used to hearing from me about glitches during class that they respond immediately when I call; if I ever have a classroom emergency, it's them I'll call first, not campus security.

Reconsiderations and a Maturing Field

This "minimal moment" marks a maturing field. The working set of disciplinary values of minimal computing refocuses practices in light of experience. But while minimal computing intends to create conditions for maximum inclusiveness, I fear that in practice it may exclude underprepared students in open-access institutions.

This moment is happening at a time when community colleges are just beginning to recognize the term "digital humanities," and when faculty are just beginning to figure out how digital assignments in lower-division courses can support key DH concepts. And assignments are the place where DH happens at community colleges, not in humanities centers, not in research labs, and, usually, not at the MLA. In many, although not all, cases, "minimal computing" assignments take maximal preparation--for CC faculty still untrained in the field and for unevenly prepared students as well. So really the minimalist turn registers an persistent uneven development in the academy.

Jentery anticipates the critique that minimal computing may produce different impacts to different agents in an unevenly developing field. He asks, "what sort of expertise and decision-making [does minimization assume]" and how do "we define 'we' in relation to necessity and simplicity?" ("Minimal Definitions"). Necessary for what? Simple for whom? Under what constraints? For community colleges, if the purpose of humanities education is to empower students with *as much* mastery of *as many* tools as possible for *as full participation* in civic and cultural life *as possible*, then how we define "minimal computing" at the CC needs to support that purpose. For I'm not just talking about access to any particular set of digital tools—whether "minimal" or "maximal"--in this regard. Rather, it's students' *transformed understanding* that I am after—the crossing of a threshold from accepting a received cultural landscape to deep reading of it. To that end, there may be a way for open-access institutions to make use of available "maximal" tools as a *relay* for critically engaging with the digital life they lead. That use may then lead to achieving the ends that "minimal computing" principles intend.

When I think of "participation in civic life" in this regard, I am thinking of Nico Carpentier's definition. Participation, writes Carpentier, is "strongly related to the power logics of decision making, whether it is explicit or implicit, formal or informal, minimalist or maximalist and egalitarian or not" (8). Looking at Jentery's comprehensive list of the features of minimal computing, [**slide**] we see that he is going for a maximalist model of participation by DH scholars in stewardship of the cultural record and in knowledge production and dissemination.

The list helps elaborate the question that Alex Gil asks—that of "what do we *need*?" --and imagines a DH architecture of necessity that ensures scholars' *maximal* role in decisions and maximal control of future use.

Carpentier's foregrounding of power relations and social capital helps us to situate values of minimal computing in an open-access CC context. It provides language for acknowledging the deep power differential between four-year institutions and CCs and for responding to those differences pedagogically.[ii] While community colleges share disciplinary affinities with their counterparts at 4-year colleges and universities, these affinities mask power differentials between CCs and their four-year counterparts.

This power differential is visible in multiple spheres, but here are a couple of examples to illustrate how it impacts faculty and students at CCs:

First, graduate school doesn't train most humanities graduates for the demands of CC teaching, and graduate faculty rarely maintain close professional ties with students who land jobs at CCs. For CC faculty the effects on professional development are profound, and have created an hermetic CC professional world, one that limited what should have been a much earlier diffusion of digital humanities methods into CC curricula.[iii]

Second, the role that contingency and precarity play in CC faculty lives cannot be overstated. Part-time/adjunct faculty represent nearly 70% of the instructional workforce of community colleges and 47% of humanities educators overall ("A National Survey" and "Traditional versus Nontraditional Humanities Faculty"). Many part-time or adjunct humanities faculty teach given syllabi or are limited in the texts they can select. Maximal equity in participatory decision-making in curriculum is harder for contingent faculty to achieve.

And what about CC students? What might minimal computing look like for them and how might they practice it? In teaching DH at the CC, anticipating the varied learning needs of CC students proves challenging, since community colleges serve highly diverse students with respect to race, class, age, first-generation college status, veteran status and nationality. [1] Since Jentery raises the issue of time in relation to reduced consumption ("Minimal Definitions"), consideration of time in CC contexts is a good place to start. For many first-generation and

[1] CC Student facts: There are 992 public community colleges in the US, and community college students make up 46% of all undergraduates in the US and 41% of all first-time freshmen. Sixty-one percent of Native American college undergraduates are enrolled in community colleges; 52% of Black students and 43% of Asian/Pacific Islander undergraduates are enrolled in community colleges; 50% of Hispanic college students begin at community college. In the US, 59% of community college students are enrolled part-time, and 59% are women (American Association of Community Colleges, "Enrollments"). The SES data on CC students are well known (Adelman): 44% percent of low-income students attend community colleges as their first college out of high school as compared to 15% of high-income students (Community College Research Center). Sixty-nine percent of community college students work, with 33% working more than 35 hours per week; 22% are full-time students employed full-time; 40% are full time students employed part-time; and 41% of part-time students are employed full-time. And first-generation students make up 36% of community college student populations (American Association of Community Colleges, "Fast Fact Sheet").

working class students, the future is a murky and uncertain landscape, and I try to avoid class-neutral assumptions about time orientation and "leisure" time in my teaching. As Beverly Skeggs and Helen Wood have argued, working class time orientation is characterized by "precarity"—a sense that struggles in and endurance of the present are more salient than investments in a future imaginary. An investment in a future is essential to the rumination involved in minimal computing and tinkering. As Jentery suggests, "serious leisure" may be required to reduce consumption of proprietary technologies, but it is in very short supply for both CC faculty and their students.[iv] CC priorities are driven by a working class time orientation toward the "short now" and not the "long now" thinking required of the minimal critical movement ("Minimal Definitions").

How else might "minimal" computing impact students' full participation? When students enroll in community college, they challenge their (often inherited) exclusion from higher ed, insisting that they belong. But CC educators are acutely aware that this sense of belonging is tenuous. Gregory M. Walton and Geoffrey L. Cohen note that experiences of failure that middle-class students may simply slough off disparately impact minority students' sense of belonging and social "fit" in college. Thinking of minimal computing and "doing the risky thing" is complicated by this disparity. Trial—and especially error--around spartan and user-***un***friendly interfaces can challenge even the most confident of lifelong learners. Recently, I fell short of completing a Github pull request after many tries, and I had the humbling experience of standing on the wrong side of a threshold. Perhaps for CC students, commercial interfaces are the "architecture of necessity" (Gil)-- the best way to ensure that they cross important thresholds when taking on digital projects.

When I was reading about minimal computing, the words "syntactic sugar" and "syntactic salt" popped up. This language of low-processing and elemental design pepper minimal computing definitions put me in mind of the language of food politics--Whole Foods, organic produce, farmers' markets and distributed pantry movements. Why is it, I wondered, that the advantages of bypassing the supermarket to ensure maximal autonomy are largely realized only by middle-class families with huge domestic square-footage and mini-vans? And do the conflicting urgencies of class and environment operate in minimal computing?

If they do, what kind of computing can help CC students comprehend and intervene in the high-speed, overprocessed environment of their "digital life"? Thinking of supermarkets led me to consider how McDonald's, Burger King, Taco Bell and KFC leverage food deserts for profit. I looked up the Food Desert locator data visualization map posted by the USDA [Figure 1], and then quickly also found the Fast Food restaurant map [Figure 2]. Then I went back to the GO::DH map that locates DH centers globally [Figure 3] and created my own DH at the CC data viz map using Google Maps to see what it might reveal. This was networked computing toward a local end [Figure 4].

But if "maximum" computing can serve "minimal computing" ends of inclusiveness and participation, I know I need to avoid creating conditions for CCs to become digital equivalents

of food deserts. A sole diet of Google, Microsoft, Twitter, Facebook, Instagram, Snapchat et al. could play into a lifetime of dependence on overprocessed commercial platforms. Meanwhile CC students' four-year counterparts at Honors Colleges and First Year Interest Groups tinker with their Tiny Linuxes, "healthy choices" and "whole foods" of Raspberry Pi.

But for now, that's where my staircase ends.

Figure 1 "Food Desert Map"

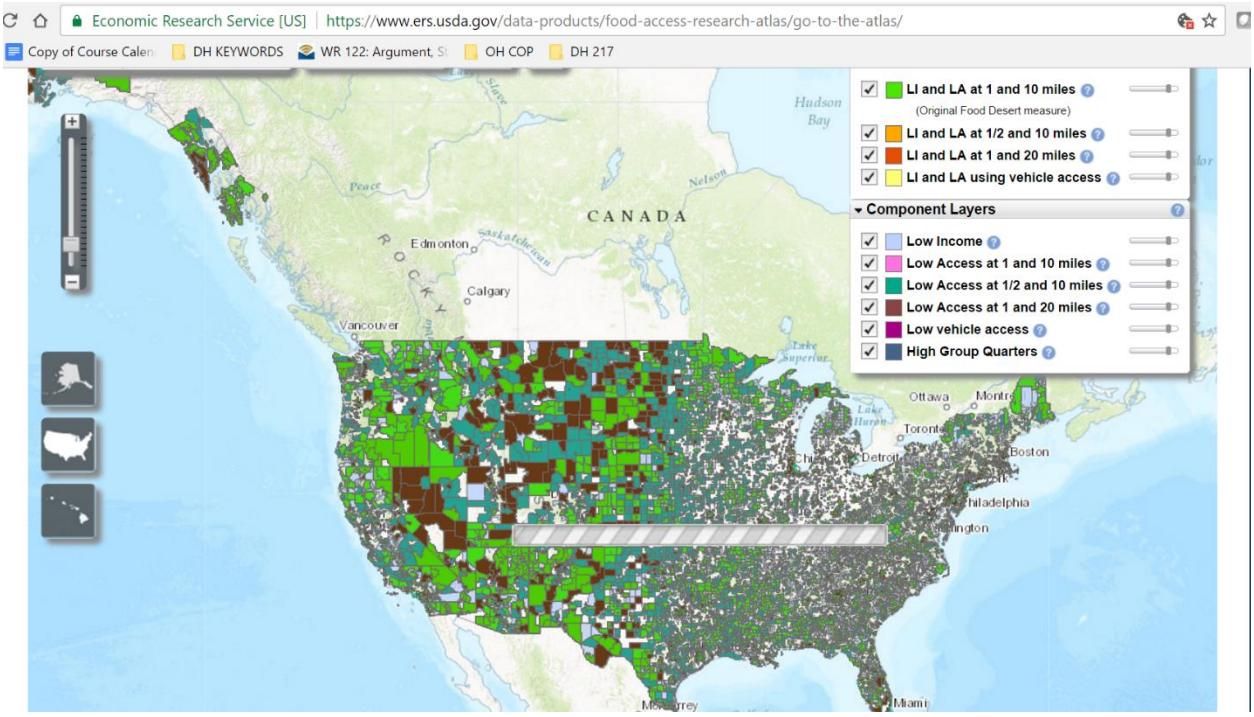


Figure 2 “Fast Food Locator”

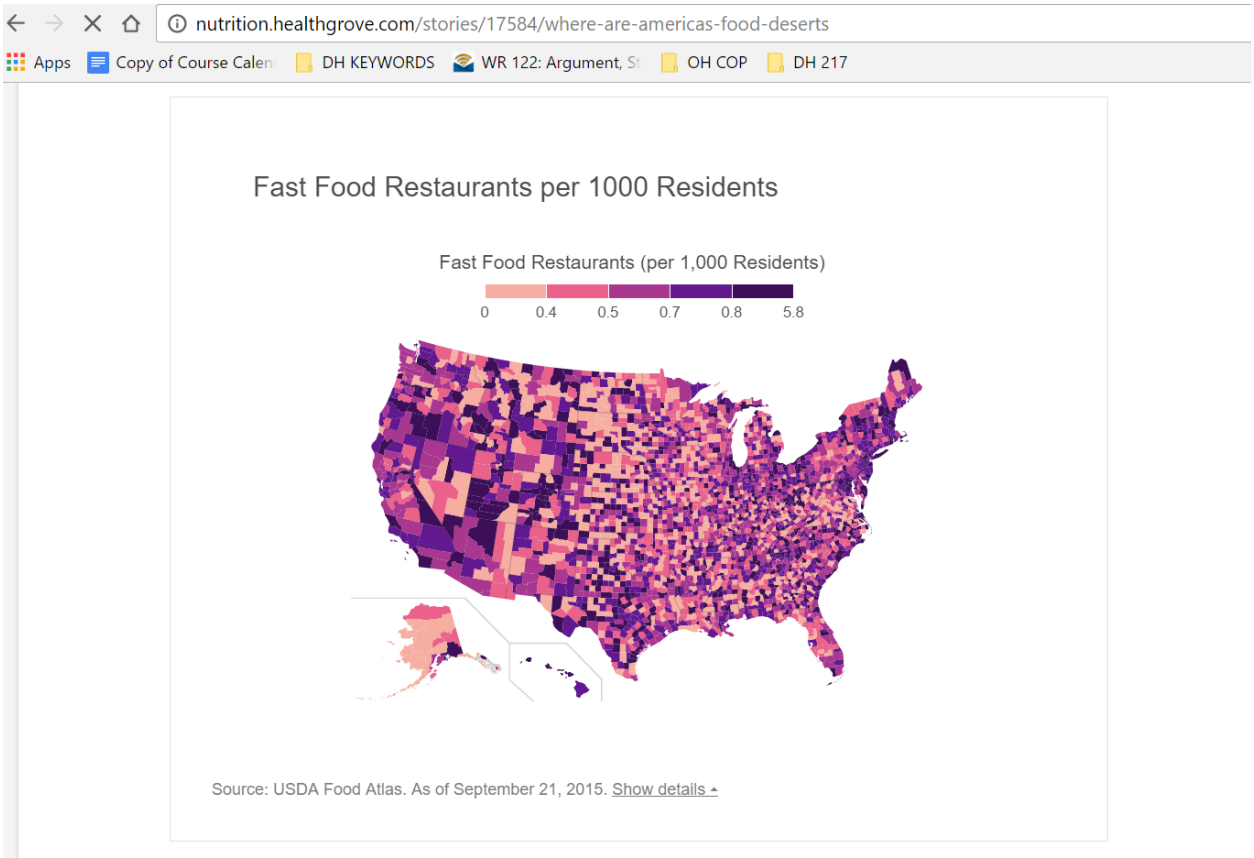


Figure 3 “In a Rich Man’s World: Global DH” http://dpod.kakelbont.ca/2012/11/02/in-a-rich-mans-world-global-dh/

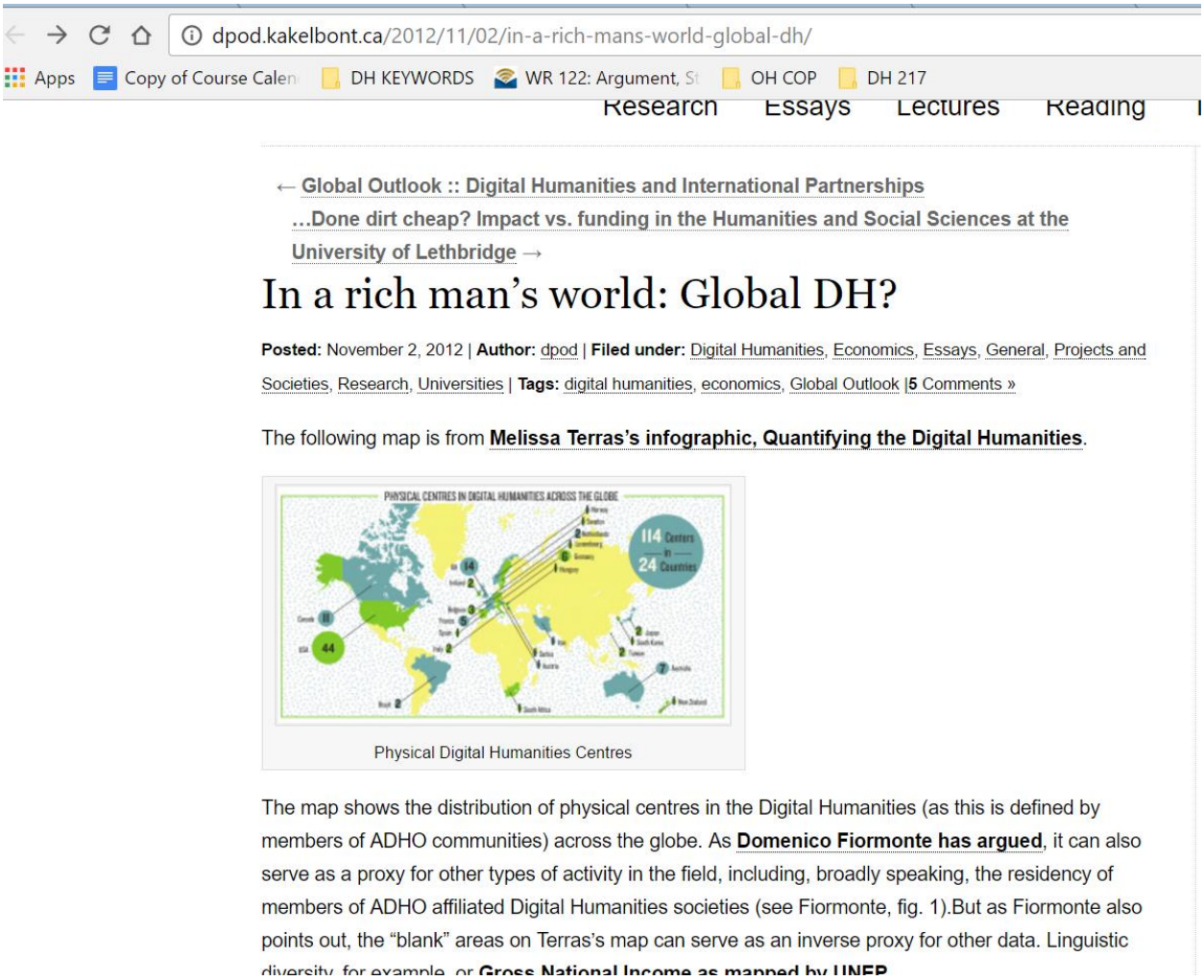
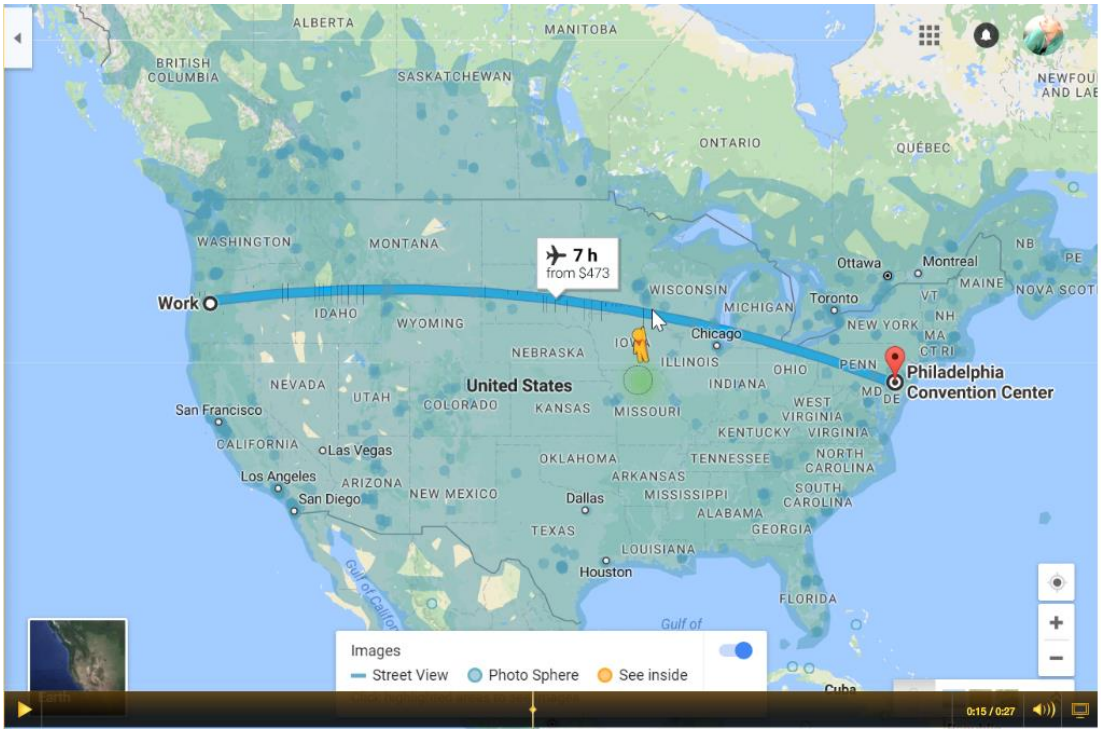


Figure 4: “The Only CC Digital Humanities Course Faculty in the PacNW flies to MLA”



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Fast Food Map. https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

[i] I should have heeded Ryan Cordell’s advice about course naming http://ryancordell.org/teaching/how-not-to-teach-digital-humanities/

[ii] I want to acknowledge here the existence of many under-resourced four-year colleges and universities as well, and that we are talking about a complex system of power and privilege operating in higher education. But CCs have an open-access mission and a lower-division or foundational focus, and this puts them at a singular disadvantage in terms of social capital—for students, for faculty within the profession.

[iii] There are some hopeful signs on the horizon in this regard: the University of Washington and CUNY Graduate Center have explicitly engaged with community colleges as a site for expanding public humanities, but the impacts of these initiatives remain to be seen.

[iv] From Jentery's essay: *In areas such as political economy, many critics are skeptical of action focused on reduced consumption (e.g., it's too responsive, or it tends to ignore conditions of production); nonetheless, this approach appears common in minimal computing, where consumption may be decreased through critical use. Consider the minimal consumption of proprietary technologies, which almost always depend on cycles of planned obsolescence; or slowing down the transformation of consumption into production via the careful deliberation and study of technologies (e.g., reading history and theory alongside computing, or experimenting with multiple infrastructures against early adoption of the dominant platform); or increased collective consciousness about how and why digital technologies are sourced, manufactured, accumulated, and discarded. These examples stress how reduced consumption operates against consumption's increased speed and turnover, and they also privilege conscious attention to embodied labor processes.*

Yet time remains a fundamental challenge for reduced consumption, especially as we assert the need for more imagination and research (especially collaborative research) amidst the storm of progress and its attendant metrics. After all, reduced consumption is frequently associated with creativity, craft, experimentation, or serious leisure (Stalp 2006), not work. In many sectors, it brushes against the grain of progress. It is not immediately productive of value (including products or commodities), and it's quite difficult to measure as an output or task in management software. Plus, many practitioners struggle to carve out such time and to convince institutions that it's necessary for informed or critical production, even if many creative and experimental practices can be performed quite quickly, perhaps out of habit. The deliberation afforded by careful research may therefore be less a question of moving fast or slow and more about how time is valued and negotiated within institutions. What are we given time to do? What's expected of that time? When, echoing Stuart Hall's work on cultural studies, do we have moments and spaces to interrupt "This is so, is it not?" with "No, it's not" (Hall 1990: 14)? As computing increasingly ravels with progress, crisis, efficiencies, metrics, "common sense," and "practical training," these moments and spaces appear all the more crucial to decision-making. http://go-dh.github.io/mincomp/thoughts/2016/10/02/minimal-definitions/