

Drafts for *Against the Cultural Singularity*

(book in progress on the digital humanities and cultural criticism as "critical infrastructure studies")

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The following is draft work (notes and bibliography not included) from one of my books in progress tentatively titled *Against the Cultural Singularity: Digital Humanities & Critical Infrastructure Studies*. Excerpted are a few portions from the beginning of the manuscript that bear on the critical potential of the digital humanities and critique. I was prompted to post this material (on my blog on 2 May 2016) in response an [essay](#) in the *Los Angeles Review of Books* the day before. See also the Storify of my Twitter responses at the time ("[Digital Humanities and 'Critique'](#)").

For a talk including this material as well as additional excerpts from my book in progress, see the [video recording](#) of my contribution to the Workshop on "[Frontiers of DH: Humanities Systems Infrastructure](#)," University of Canterbury, 12 November 2015 (*delivered as part of a series in New Zealand during my Fulbright Specialist residency at U. Canterbury, October-November, 2015.*)

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My aim in this book is to make a strategic intervention in the development of the digital humanities. Following up on my 2012 essay, "[Where is Cultural Criticism in the Digital Humanities?](#)", I call for digital humanities research and development informed by, and able to influence, the way scholarship, teaching, administration, support services, labor practices, and even development and investment strategies in higher education intersect with society, where a significant channel of the intersection between the academy and other social sectors, at once symbolic and instrumental, consists in shared but contested information-technology infrastructures. I first lay out in the book a methodological framework for understanding how the digital humanities can develop a mode of critical infrastructure studies. I then offer a prospectus for the kinds of infrastructure (not only research "cyberinfrastructures," as they have been called) whose development the digital humanities might help create or guide. And I close with thoughts on how the digital humanities can contribute to ameliorating the very idea of "development"—technological, socioeconomic, and cultural—today.

Method (1)

The first step—framing for the digital humanities a suitable methodological framework for critical digital infrastructure studies—is challenging, given that the digital humanities are maturing *after* the late twentieth-century bloom of humanities "theory" and "cultural criticism," which I here group together (*grosso modo*) under the name "critique." The late-comer status of

the digital humanities in this regard is epitomized in the field's debate a few years ago about "hack versus yack." Should digital humanists primarily program, build, or make (*hack*)? Or should they instead critically interpret and theorize information media, past and present, in a manner much like normative humanities research (*yack*)? At core, the debate is not really about theorized critique versus something other than such critique. Instead, the debate situates the digital humanities at a fork between two branches of *late* humanities critique. One, a hack branch (sometimes referred to as "critical making"), affiliates with, but is often more concretely pragmatic, than "thing theory," the new materialism, actor-network theory, assemblage theory, and similar late poststructuralist theories. The other, a yack branch, descends from the not unrelated critical traditions of Frankfurt School "critical theory," deconstruction, Foucauldian "archaeology," cultural materialism, postcolonial theory, and gender and race theory—especially as all these have now been inflected by media studies.

In short, the question is not whether the digital humanities should include theorized critique. At some level, and especially in some branches, the field already does by virtue simply of belonging to the family of the contemporary humanities. Instead, the question is what sort of critique is uniquely appropriate and purposive for the digital humanities. What critique, in other words, not only allows the field to assist mainstream humanities critique but could not be conducted except through digital humanities methods that use technology self-reflexively as part of the very condition, and not just facility, of critically knowing and acting on culture today?

The answer to this question, I suggest, is critique at the level of, and articulated through, infrastructure—where "infrastructure," the social-cum-technological milieu that at once enables the fulfillment of human experience and enforces constraints on that experience, today has much of the same scale, complexity, and general cultural impact as the idea of "culture" itself. Indeed, it may be that in late modernity when the bulk of life and work occurs in organizational institutions of one kind or another, the experience of infrastructure at institutional scales (undergirded by national or regional infrastructures such as electricity grids and global-scale infrastructures such as the Internet) *is* operationally the experience of "culture." Put another way, the word "infrastructure" can now give us the same kind of general purchase on social complexity that Stuart Hall, Raymond Williams, and others sought when they reached for their all-purpose word, "culture." Consider the way dystopian films produced at the onset of the digital information age such as *Blade Runner* (1982) and the Mad Max films (beginning in 1979) characterized whole cultures by foregrounding infrastructure—in the former: glistening, noir cityscapes defined by transportation and media technology; in the latter: desert landscapes defined by fuel and water supply systems. Those films gave a foretaste of the way late-modern infrastructure is increasingly the *mise-en-scène* of culture. Daily life steepens us in pervasive encounters with transportation, media, and other infrastructures that do not just neutrally convey the experience of culture but are visibly parts of our cultural experience. Late modernity is thus car culture, cable TV culture, Internet culture, smartphone culture, and any other kind of "cool" culture where, as I studied in my [*Laws of Cool*](#), "cool" is a cultural affect of both "smart" technologies and the knowledge workers who use them to be, or at least look, smart.

The consequence of such convergence between infrastructure and culture for critique may be predicted as follows: especially in the digital humanities, critique must now begin to focus on

infrastructure in order to have any hope of creating tomorrow's equivalents of the great cultural-critical statements of the past. Tomorrow's E. P. Thompson writing about the making of the working class, C. Wright Mills about white collars, Raymond Williams about culture and society, Michel Foucault about discipline, Judith Butler about gender and performativity, Donna Haraway about cyborgs, or Homi Bhaba about hybridity—among many more who could be cited—will need to include in their critiques attention to infrastructure as that cyborg being whose making, working, disciplining, performance, gender formation, and hybridity are increasingly part of the core identity of late modern culture.

What would the method for such a digital humanities cultural criticism focused on infrastructure actually look like? [*material elided here*] . . . [P]rosaicly, the style of digital humanities infrastructural critique I imagine—one that takes advantage of modes of thinking already prevalent in the field—may be called *lightly-antifoundationalist*. The question that I concoct this phrase to answer is how much antifoundationalism—or, perhaps “anti-groundwork” (to allude to Marx's *Grundrisse der Kritik der Politischen Ökonomie*)—is actually useful for critical infrastructure studies. Mainstream humanistic critique (the “hermeneutics of suspicion” that Rita Felski has recently taken to task in her critique of critique) has often been antifoundationalist all the way down according to a three-stage logic that might be outlined as follows.

In its first logical moment, critique recognizes that the “real,” “true,” or “lawful” groundwork (i.e., infrastructure) for anything, especially the things that matter most to people, such as the allocation of goods or the assignation of identity, is ungrounded. For example, while there are material reasons for resource allocation and the social relations of force needed to do that dirty deed—i.e., for political economy and society—any particular political economy and society are arbitrary and, in the last analysis, unjust. Political economy and society are thus not grounds but, to play on the word, precisely *groundworks*: particular ways of working the ground (i.e., a mode of production) supported by discursive, epistemic, psychic, and cultural institutions for ensuring that the work continues in the absence of rational or moral foundation.

In its second logical moment, critique then goes antifoundationalist to the second degree by criticizing its own standing in the political-economic system—a recursion effect attested in now familiar, post-May-1968 worries that critics themselves are complicit in elitism, “embourgeoisment,” “recuperation,” “containment,” and majoritarian identity, not to mention tenure.

Finally, *in its third logical moment*, critique seeks to turn its complicity to advantage—for example, by positioning critics as what Foucault called embedded or “specific intellectuals” acting on a particular institutional scene to steer social forces. A related idea is to go “tactical” in the manner theorized by Michel de Certeau, who argued that people immured in any system can appropriate that system's infrastructure through bottom-up agency for deviant purposes (as in his paradigm of jaywalking in the city). Media critics, including new media critics, have generalized de Certeau's notion in the name of “tactical media,” meaning media whose platforms, channels, interfaces, and representations can be appropriated by users for alternative ends.

In general, the digital humanities tend to do things according to methods that slice out from the above total arc of critique just the latter *tactical moment*. Such slicing–hacking critique to sever its roots from purist antifoundationalism–brings digital humanities critique into the orbit of several late- or post-critical approaches with a similar style (*style* rather than full-blown *theory* precisely because they eschew foundational purity). One approach that James Smithies has associated with the digital humanities is “postfoundationalism” in his [“Digital Humanities, Postfoundationalism, Postindustrial Culture.”](#) Borrowing from the philosopher of science Dimitri Ginev, Smithies argues that postfoundationalism is “an intellectual position that balances a distrust of grand narrative with an acceptance that methods honed over centuries and supported by independently verified evidence can lead, if not to Truth itself, then closer to it than we were before” (§ 26). Postfoundationalism is thus well matched to the digital humanities, Smithies suggests, if we think of the digital humanities as “a process of continuous methodological and . . . theoretical refinement that produces research outputs as snapshots of an ongoing activity rather than the culmination of ‘completed’ research” (§ 29). A related idea is “critical technical practice,” which Michael Dieter ([“The Virtues of Critical Digital Practice”](#))–building on Philip Agre’s writings on artificial intelligence research–makes a goal of the digital humanities. Dieter quotes from Agre: “The word ‘critical’ here does not call for pessimism and destruction but rather for an expanded understanding of the conditions and goals of technical work. . . . Instead of seeking foundations it would embrace the impossibility of foundations, guiding itself by a continually unfolding awareness of its own workings as a historically specific practice.” Other ideas that are lightly-foundationalist in this way, though not to my knowledge yet applied to the digital humanities, include Bruno Latour’s “compositionism” (fixed on neither absolute foundations of knowledge nor absolutist refutations of such foundations but instead on mixed, impure, make-do, and can-do compositions of multiple positions; [“An Attempt at a ‘Compositionist Manifesto’,”](#) PDF) and Ackbar Abbas and David Theo Goldberg’s “poor theory” (which uses “tools at hand” and “limited resources” to engage “with heterogeneous probings, fragmentary thinking, and open-endedness” in resistance to “totalization, restriction, and closure”) ([“Poor Theory: Notes Toward a Manifesto,”](#) PDF).

All these lightly-antifoundationalist approaches are tactical rather than strategically pure because their very potential for critique arises from polluting proximity to, and sometimes even partnership with, their objects of critique. Unlike distantiated critique, that is, tactical critique (as the root of the word “tactic” might indicate) makes contact. Smithies thus notes postfoundationalism’s function as a “bridging concept” for the “interdependence” and “entanglement” of the digital humanities with postindustrialism (§ 8, 3, 2). Indeed, I add that all the approaches thus far mentioned as a “light foundation” for critical infrastructure studies are similarly contaminated by the double principle of efficiency and flexibility, which (as I articulated in my *The Laws of Cool*) is the two-stroke engine of the postindustrial mode of production. As it were, all the approaches I have mentioned are instances of “lean” and “just-in-time” critique and thus not dissimilar in spirit to the in-house critique that postindustrial corporations at the end of the twentieth century began to design into their own production lines by famously empowering workers to “stop the line” ad hoc (or, less catastrophically, to suggest incremental improvements) when they saw something wrong. Such dirty contact with postindustrialism is both the weakness and strength of lightly-antifoundationalist approaches, where weakness means being swallowed up by the system and strength comes from getting close enough to the system to know its critical points of inflection, difference, and change. If,

as Smithies says, the digital humanities are “deeply entangled” in postindustrialism, in other words, entanglement need not be the same as equivalence. It is also engagement.

The critical potential of this tendency in the digital humanities to be lightly-antifoundationalist can now be stated: it is precisely the ability to treat infrastructure not as a foundation, a given, but instead as a tactical medium that opens the possibility of critical infrastructure studies as a mode of cultural studies. And it is such cultural studies that will allow the digital humanities to fulfill their final-cause critical function at the present time, which is to help adjudicate how academic infrastructure connects higher education to, but also differentiates it from, the workings of other institutions in advanced technological societies. The critical function of the digital humanities going forward, in other words, is to assist in shaping smart, ethical academic infrastructures that not only further normative academic work (research, pedagogy, advising, administration, etc.) but also intelligently transfer some, but not all, values and practices in both directions between higher education and today’s other powerful institutions—business, law, medicine, government, the media, the creative industries, NGOs, and so on.

Method (2)

At present, some of the most influential general understandings of infrastructure cited by digital humanists such as Sheila Anderson and James Smithies studying humanities cyberinfrastructure in particular have been the Large Technical Systems (LTS) approach, stemming originally from the historian Thomas Hughes’s *Networks of Power* (1983), and the information-ethnography approach stemming from Susan Leigh Star, Geoffrey Bowker, and their circle. Good expositions of both are combined in one of the best conceptualizations of infrastructure I have so far found: a document of 2007 titled [“Understanding Infrastructure: Dynamics, Tensions, and Design”](#) (PDF) (whose authors include Bowker) representing the final report to the National Science Foundation of a workshop it sponsored.

Adding to these general approaches to infrastructure, I borrow in this book another portfolio of thought that to my knowledge has not yet been introduced directly to infrastructure studies. It is also a portfolio largely unknown in the digital humanities and, for that matter, in the humanities as a whole even though it is broadly compatible with humanities cultural criticism. The portfolio consists of the “neoinstitutionalist” approach to organizations in sociology and, highly consonant, also “social constructionist” (especially “adaptive structuration”) approaches to organizational infrastructure in sociology and information science. Taken together, these approaches explore how organizations are structured as social institutions by so-called “carriers” of beliefs and practices (i.e., *culture*), among which information-technology infrastructure is increasingly crucial. Importantly, these approaches are a social-science version of what I have called lightly-antifoundationalist. Scholars in these areas “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. But they are less interested in exposing the ungrounded nature of organizational institutions and infrastructures (as if it were possible to avoid or get outside them) than in illuminating, and pragmatically guiding, the agencies and factors involved in their making and remaking. Such approaches are thus

inherently a good match for the epistemology of building, unbuilding, and rebuilding in the digital humanities.

More than a good match, neoinstitutionalism and the social science of organizational technologies offer exactly the right tactical opening for a digital humanities cultural criticism because they are all about the site on which the already existing critical force of the digital humanities is pent up: institutional forms of technologically-assisted knowledge work. After all, the digital humanities stand in contrast to new media studies and network critique among cousin fields as the branch of digitally-focused humanities work that has been primarily focused on changing research, authorship, dissemination, and teaching *inside* (and across) academic institutions and related cultural or heritage institutions rather than on broader commentary directed externally at society and social justice. The digital humanities are all about developing analytical, publishing, curatorial, and hybrid-pedagogical tools and practices at scales ranging from standalone projects to federated or regional frameworks; creating new university programs and centers; changing the accepted notion of academic careers (e.g., to include “alt-ac” alternative academic careers); and, ultimately, instilling a new scholarly digital ethos in the academy in the name of “collaboration” and “open access.” As a consequence, the existing critical energy of the digital humanities—sometimes quite passionate and even militant—has been primarily devoted to such institutional issues. Breaking down the paywalls of closed publication infrastructures, for instance, is the digital humanities version of storming a university administration building in the 1970s.

Can neoinstitutional and social-structuration-of-technology approaches to understanding the evolving relation between the academic institution and today’s more domineering institutions (most notably, business and government) help the digital humanities release its intramural critical energy? Can that release help propel not just change in higher education but, *through* higher education and the technological infrastructures that mediate its relationship to other institutions, also extramural change in the larger society that higher ed contributes to? (Besides its focus on culture, I note, one of the special strengths of neoinstitutionalism that make it attractive to add it to Large Technical System analyses of infrastructure is that it is especially attuned to studying change and divergence among dominant institutional systems.) In short, can the considerable existing intelligence, idealism, and moral force of the digital humanities be redirected from being only an instrument of institution work to becoming *through* interventions in instrumental infrastructure also a way to act on institutions and their wider social impact?

But I do not wish to overreach, which is also why I think an approach focused on institutions and their infrastructures is particularly appropriate. Ultimately, the digital humanities field must be critical in a way that does not ask it inauthentically to reach beyond its expertise and mandate to bear exaggerated responsibility for larger social phenomena. Acting out through the digital humanities about larger social issues is necessary. But such actions must be complemented by creating infrastructures and practices that make their social impact by being what Susan Leigh Star called “boundary objects”—in this case boundary objects situated between the academic institution and other major social institutions. It is in this boundary zone—just as one example, “content management system” infrastructures whose use by scholars oscillates between corporate “managed” and “open community” philosophies—that higher education can most pertinently influence, and be influenced by, other institutions through what I earlier called

“shared but contested information-technology infrastructures.” It is in this boundary zone of hybrid scholarly, pedagogical, and administrative institutional infrastructure that we need the attention of skilled and thoughtful digital humanists, even if the interventions they make are not called anything as ambitious as “activism” but instead simply “building.”

[End of excerpt]