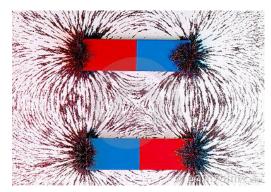
An Ethnography of Availability In the Style of the Empirical Humanities Mike Fortun et al.

Implications of the Emerging Data Sciences for the Interpretive Social Sciences NSF-sponsored Interdisciplinary Workshop March 24-25, 2022

[Just Like] Starting Over

In a previous paper (Fortun 2020) I analyzed the cultural formations in and through which we differentiate and confer value on our knowledges and knowledge-making practices—ordering them between the poles of positivism and interpretivism, let's



say, since we are all in a hurry–alongside the cultural formations through which we differentiate and confer value on sexualities and sex-making practices, between a norm and its perversions. These two orderings, my analysis tried to show, took on similar patterns, produced by the immaterial but real forces of a cultural field or discursive and social structures. That analysis led

me to conclude that (I am summarizing) there are neither Two Cultures nor One, as well as both One Culture and Two. I signified this paradoxical state with the formulation " $\sqrt{2}$ Cultures," to index its position outside an integral system.

There was, and remains, much more to say than that. But for now, only one statement: The analysis was rigorous.

What data would need to be available to support or substantiate this statement? "Rigor" or "rigorous" are marks that appear six times in (Albro and Plemmons 2020). Leaving aside the absolute need for (recursive) interpretation here, we can assume that however "rigorous" should be interpreted, the fact that these marks are used six times there clearly indicates importance. And broadly speaking I, too, think that our (qualitative) analyses need to be rigorous, whatever that ends up meaning. More importantly, I'm also committed—even if "rigor" remains open to interpretation, and indeed especially because it remains open—to making available all that might be useful to allow another analyst, also presumably rigorous (more recursivity to be bracketed) to

evaluate (more still!) the rigorousness of any of my analyses, but especially the perverse ones.

For more than ten years I have worked with colleagues in the empirical humanities¹ (who also take matters of rigor seriously) to design, build, and use the open source Platform for Experimental Collaborative Ethnography (PECE)-- use to test our analyses of data, data sharing, and what counts as rigorous analysis in the empirical humanities. In conversation with semantic web architects and the Research Data Alliance, we learned to develop "use cases" as a way to delineate the questions and issues a particular research community faces when it is building digital infrastructure for data sharing and analysis. Use cases document the workflows, decision processes, practices, and tacit understandings researchers in a particular field rely on or employ when they are curating, sharing, and analyzing data, to guide the design or re-design of supporting digital infrastructure. So I've organized the rest of this essay around some invented "use cases" to explore these questions of data, availability, and rigor from my (possibly perverse) perspective as a particular kind of ethnographer, or empirical humanist.

Use Case #1: Where and how is data available to an empirical humanist?

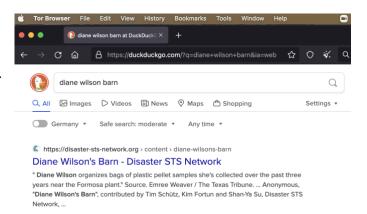
-

¹ Like all designators for a set of entities, "empirical humanities" is imperfect. We invented it for our work with and within the Research Data Alliance to name the particular style of ethnography we practice, where "style" references Ludwik Fleck's (1935) analysis of the "thought styles" through which *any and every* scientific community of practice come to know a world and do things in and with it. Our conceptual heritage, our disciplinary genealogies, our reading practices, and the kinds of knowledge we produce through the kinds of texts we write differ in significant ways from the set "social scientists" that RDA tended to place us in; even the sets "cultural anthropologist" or "ethnographers" did not recognize important differences within those categories that we thought needed to be respected. "Empirical humanists" became our shorthand for referring to researchers who generate new empirical materials, and who interpret (a term, like rigor, requiring an enormous amount of explication) those materials in ways closer to those of humanities scholars than to the sociologists, political scientists, and even many other cultural anthropologists who also employ "ethnographic methods."

Let's contrive a simpler analysis than the analysis of the perverse queerness of analysis, one clearly toward the far end of our positivist-interpretivist spectrum:

"Environmental activist Diane Wilson is badass." Let's look for some data, to assess its

rigorousness. Using Tor Browser I searched DuckDuckGo (this is as rigorously distanced from my usual browsing patterns as I could get) for the string of characters "diane wilson barn". This was the first result:



And here's the data that link takes

you to:

I am glad to have helped make this data not simply available, but easily discoverable.
And by "data" I mean this photograph of Wilson in her barn in Port Lavaca, Texas, taken by Emree Weaver for The Texas Tribune.



Wilson is a long-time environmental activist and self-described <u>"unreasonable woman."</u> She *looks* kinda badass here, doesn't she? Still, we should check if more data is available, since the rigor of my interpretation is in question.

The stuff in Diane's barn in the photo is not data; it is just stuff, although there is enough of it to call it Big Stuff. This Big Stuff is Big Data's future anterior, to get all fancy

and French about it.² You could call it "raw data," if you prefer to get all scientific about it, but I think that would be an inferior choice, if a popular and indeed hegemonic one. The photograph is data because, unlike the stuff in Diane's barn, it is available and discoverable, and it is available and discoverable because it has metadata. Hence a first proposition, in various expressions, on our way to establishing rigor:

(A1v1) Data if and only if metadata.

(A1v2) If metadata, then data.

(A1v3) Data is anything with metadata.

(A1v4) Only meta/data.3

From which it follows logically that:

(B1) Availability if and only if meta/data.

But by the additional proposition –

(C1v1) Meta/data if and only if archive.

-we can then conclude that

(C1v2) Availability if and only if archive

Availability of data *requires* that there be a place prepared for it, a place that someone must have readied and now maintains. (This by the Law of Meta/data Hospitality and its Domestic Care Clause, which I have proven elsewhere.)

Given (A1), (B1), and (C1), then by the Law of Archive Fever (also proven elsewhere):

(D1) Availability IFF archon (power/authority/ruler/State/G-d/SysAdmin).

With these propositions firmly established, let's move on to Use Case #2 as a means of unpacking and extending Use Case #1.

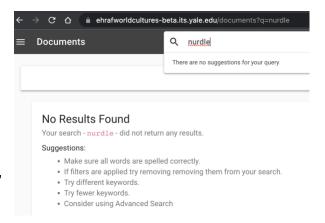
² Data on the future anterior is available in this databyss: https://returntocinder.com/motif/futureanterior/sources

³ I could have written an essay on data and data science entirely around marks like "/" that are (absolutely) fundamental to (post)structuralist language ideologies yet annoy the shit out of anyone operating with a representationalist language ideology (which includes all of us, to some meaningful degree). More importantly but not unrelatedly, data science has difficulty accommodating and working with slashed entities that do not coincide with themselves, concepts under erasure, parenthetical traces of meanings, disseminated and transmuting senses, etc. etc. Tl,dr: computers don't (yet) queer very well and "sense," as renowned logician Charles Dodgson has shown, is essentially queer, or at least curiouser and curiouser.

<u>Use Case #2: How does an empirical humanist a.k.a. ethnographer "make sense" of</u> available meta/data?

Let's look for more empirical material aka meta/data on Diane Wilson, to try to

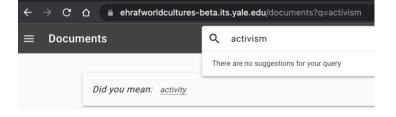
make sense of her, to publish and communicate that sense, and to be promoted in the hierarchies of the academy. The empirical humanist points his web browser to the Human
Resources Area Files, now dba eHRAF
World Cultures. He searches for "nurdle:"

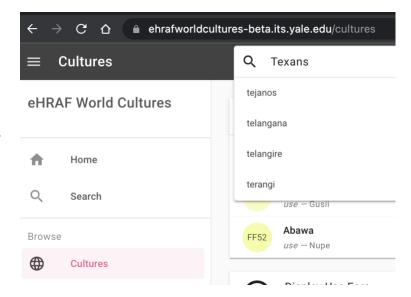


He does not "consider using Advanced Search," but does consider that a nonsense

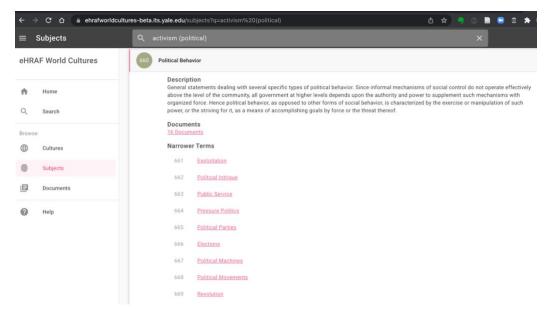
neologism might not be the best search strategy for eHRAF; he searches for "activism:"

He does not know what he "meant"--that's why he was searching!--but "activity" doesn't seem right. He takes another approach, searching for something about Diane Wilson's people:





Diane Wilson does not seem to have people. He goes back to "activism," but this time in Subjects:



OK, now he's getting somewhere, even if it's not

where he expected to get; where's the "narrower" meta/data term "environmental activism"?...

I don't "mean" to disparage eHRAF, although I realize that the perlocutionary force (a concept not available from a representationalist language ideology) of the speech act here is a disparagement of eHRAF beyond what I mean. I only mean to make the point that:

- (E1.1) Meta/data is only meta/data to someone.
- (E1.2) Availability is only availability to someone.

(This is a good time to say that, from C1 and D1, it follows that hospitality requires limits: no space is simply open, even "open access" ones, but needs to be controlled, structured in order to invite people into it, under certain Terms of Service. In this case, I can only take or consume what's available, and I can only consume it; I cannot bring anything to this table myself. Most archives are like this, but the hospitality of every archive is limited in some way.)

HRAF makes enormous amounts of cultural meta/data available, and that is great for researchers, teachers, and students in anthropology. But the meta/data structures of its availability do not make sense for the kind of ethnographic sense I try to make of the kinds of people I encounter in my research and the kinds of things they do.

There is no meta/data available for me and my sense-making projects in eHRAF. Not through any fault of HRAF; I respect that HRAFs meta/data structures have been so durable, that their writing has been so re-iterable in multiple material mediums that have made it available to ethnographers who have more common sense than I do. Those re-iterable (albeit expanding and diversifying) meta/data structures are elaborate and useful because they have been carefully thought out and laboriously cared for, all thanks to the ongoing hospitality of the HRAF *archons*.

Those archons at Yale University have made that meta/data available over

many decades: available on paper placed into sets set into wooden boxes in a room at Yale; available from etching by who even knows what mechanism anymore onto some kind of plasticky

tape or plate or micro"fiche"





and sent to some handful of other libraries privileged by their own *archons* and made available to people willing to confine themselves to a windowless room and to sit uncomfortably at noisy cranky machines; available by virtue of being lasered into pits on a different kind of plastic called

the "CD" (I still have some!) and slipped into a quieter, smaller machine with a nicer screen, but still in that windowless library room that I need to show ID to enter; and now available as coded and URLed and streamed through my university to me on the couch with my cat, after I signed on with two-factor authentication. All great, all increasingly elaborate and finer grained meta/data, but still in a rigidly (another connotation of rigorous) structured



meta/data system that while making all this available still doesn't make anything

meaningful available to me, to make the sense I want and need to make of Diane Wilson and her nurdles in her Texas barn.

Use Case #3: How can empirical humanists alter and expand the limits of hospitality? A search on "nurdles" on the Disaster-STS Network site, one of seven instances of the open source Platform for Experimental Collaborative Ethnography (PECE), yields 81 results. Among the items that have been made available (and thus discoverable, to reiterate that important difference) are meta/data of meta/data (I am a sucker for the recursive): ethnographic data made out of environmental data collected by Diane Wilson in the course of her activism against Formosa Plastics, a multinational petrochemical corporation. Paddling around Lavaca Bay in a kayak, Diane collected the tiny plastic nurdles Formosa was releasing into the bay but, as horrible corporations do, lying about it. Diane and accompanying badasses would rigorously geocode samples and photographs, record their timed and dated observations and type them up on standardized forms. The actual nurdle samples remain as some of that stuff in Diane's barn, but the photographs and meta/data sheets are some of the meta/data artifacts in the Formosa Plastics Global Archive being built by Tim Schütz. For Diane, these meta/data were part of the Big (Enough) Data that constituted a larger body of legal evidence which, after many years of constant, risky, and highly visible activism in

addition to this careful environmental science, would result in a landmark \$50 million settlement with Formosa.

We designed PECE to be "lightly structured." Among other things, this means that we do not employ the controlled



vocabularies that archives like
HRAF do. PECE does not have, for example, a meta/data field like "culture" that one could enter "Texan" into, or a "political

behavior" set that would grow to include "anticorporate badassery" as one of its finergrained subsets. That's not PECE's style of Date: Time:

Stop 1 7/26/2020 12:36-12:45pm

Observer Name: Diane Wilson

Email Address: wilsonalamobay@aol.com

Phone Number: 361-218-2353

Location (Luittude/Longitude) or Nearest Outfall (if known):

Stop 1: South of outfall 06

May we contact you if we have follow-up questions? YES / NO

yes

Location Description:

Stop 1: At the area known as the boat launch, which is south of outfall 06 and south of highway 35

bridge at Cox creek. There were considerable pellets at an area approx. 3 feet in length along the northern bluff of the boat launch. The pellets can be easily dispersed with a high tide. One photo was taken (a)

Along the southern edge of the bank at the boat launch, there was considerable pellets floating free and in the grass. The area was approximately 6x6 ft. Pellets can be easily dispersed with a high tide. One photo to saken and one video: b,c,d.

Describe where pellets are located: ex. floating in the water, on the shore next to the water, on the shore but more than one foot higher than the water, trapped behind a boom? If they're on the shore, are they within reach of the tide?

See above

Estimated length of shore with pellets:

Description of Observation: pellets/powder? scattered, dense? how many pellets do you estimate are present?

See above

Photos(Taken: YES / NO to

Yes, 3 photos and 1 video.

A copy of this form may be mailed to:

availability, because that's not the way empirical humanists work or what they work toward. We are not trying to consolidate essential truths about anti-corporate badassery to be reproduced, validated, amended, or falsified by other researchers. "Are Texans more or less likely than Californians to become anti-corporate badasses when the environment is at stake?" is not the kind of question that matters to us.

And yet we want our meta/data to be available for *someone* to use *somehow*—and as many *someones* with as many *somehows* as possible. We can't put it in HRAF because there is no place that has been set at that table for it, and its *archons*, in their hospitality, nevertheless control access to that archive very strictly. We designed PECE so that the empirical humanists of Texas, Taiwan, Louisiana, Cambodia, and Vietnam can themselves add any meta/data they think is important to the Formosa Plastics Global Archive—many *archons*, with relatively equal powers, make for more availability. And more availability of more meta/data also establishes more connections between

people, including ethnographers, otherwise dispersed around the global, like petrochemical plants are. (But there's the matter of that SysAdmin...)

The FPGA would not qualify as Big Meta/Data, but we are not especially interested in producing Big Meta/Data. Not that it's not interesting, and not that we think making Big Meta/Data in the humanities and social science is a waste of time. It's more that:

(F1) All Meta/Data may not be Big, but every Meta/Datum is Excessive.

Meta/data are openings that have been momentarily closed to make them available. Every meta/datum available in an archive may be interpreted (unfolded, compared, combined, read...) in *n-1* ways. Meta/data only becomes meta/data in acts of differential reading. And differential reading takes time.

<u>Use Case #4: What are the limits of meta/data and how do those limits structure</u> availability?

"Perhaps positivism is a male method." Call this the McCloskey Hypothesis, first proposed by the economist D. McCloskey in 1989. What would it mean to test this hypothesis, rigorously? I'm not sure, but one would at least start by reading the rest of the article, where among the data used to support the hypothesis is a presentation of Barbara McClintock's scientific worldview, as made available through Evelyn Fox Keller's 1985 biographical study. "The style of empirical inquiry," McCloskey writes (did you know that empirical inquiry comes in different styles?), "that spends six years on the aberrant pigmentation of a few kernels of corn is rare in economics. Yet no one is surprised to find it disproportionately among female economists." McCloskey quotes McClintock's characterization of her relationship to "the thing"-- "The thing is dear to you for a period of time; you really [have] an affection for it."--before adding:

What is dear to male economists, by contrast, is quick fits to models. 'Testing hypothesis,' after all, is easier than thinking and much easier than making the thing 'dear to you for a period of time.'

This seems like the start of a good counternarrative for the value of (qualitative) data availability: not to enable reproducibility or rigor-testing, but to make data dear to

researchers for a good while, to let its "interpreters" (still unclear) sit and linger with it, to visit and revisit and spend time with it.

There's another meta/data narrative here worth spending some time with. I came to this article thanks to Susan Sterett, who was so kind to tarry with my more perverse

previous iteration and engage me in teleconversation.

McCloskey's article is available thanks to the commercial hospitality of Taylor and Francis, discoverable through the meta/data "[au: Donald N.



McCloskey]":

But dearer to me is the grainier scanned version available on McCloskey's web site, which plays on and at the limits of meta/data: here we can learn not only why McCloskey is no longer the positivist she was in 1964 – "Positivism...is not a philosophy for an adult in science. Young men–especially young men–can believe it because they

but we can learn what Taylor and Francis does not make available: Deirdre is no longer a Donald N. McCloskey. There's no reason to spend any period

can believe any crazy thing."--

Francis site: available,

of time at the Taylor and

REVIEW OF SOCIAL ECONOMY

WHY I AM NO LONGER A POSITIVIST*

By Download N. McCloskey**

University of Iowa

download, close tab. This style of availability, this hospitality system casts the researcher as consumer. But in this other site of availability I want to stay and ask questions: Is McCloskey making a statement about "writing under erasure"? Or is she simply habituated to produce careful proofreading marks, with that tight little curl at the end asking to "delete" the dead name living on in the commodity of a commercial publisher? For the previous article scan (#170) in McCloskey's circled number system,

also published in 1989, and <u>for the later #173</u> from 1993, why has she not made this handwritten change? Does this "aberrant" pattern have meaning, like McClintock's corn kernels? Was this McCloskey's way of signing for the intimate connection between why she was no longer a positivist and why she was no longer Donald?

"Perhaps."

<u>Use Case #4: How can archives for the empirical humanities be structured to make their</u> excesses available so they can become dear to researchers?

So many interpretations of questionable rigor, so little time...

We are still trying to calibrate the rigorousness of my interpretive statement, "Diane Wilson is badass." Is there still more data available? I would point you to this recorded Zoom conversation (ethnographic interview) with her from May 26, 2020, which we have made available—but not to you. Until Diane gives her permission, it is available only to authorized researchers; if you click that link you will get an "Access Denied" message. But I am confident that if you made that data dear to you for one hour and 42 minutes, the rigor measure of "badass" will at least rise if not peg the meter. You might get enough sense of that from this video of Diane that has been made available.

But again, there are other things at stake than the rigor of my interpretation, important as that is, and again, I want to defer those and first discuss more the *how* of availability, or its style, and then turn back to the entanglement of the *how* with the *why*.

I'm making a distinction between availability and hospitality. With some adjustments, we could make most of our data (the video files would present problems) available through places like the Qualitative Data Repository (which has more data available on "activism" than HRAF, but still none related to environmentalism as far as I could see) or the Harvard Dataverse (which QDR is "powered by"), which is in desperate need of nurdle data. But as much as I value and laud the data availability these archives manifest, neither of them is particularly hospitable. There's little reason to stick around the table, it's strictly eat and run. There's no way to play or interact with the meta/data there, which is always encountered in isolation. There's really only one

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⁴ Although I do admire QDR's foray into annotation through the hypothes.is browser extension. But the dependencies which this introduces are limiting in their own ways, which are too complicated to go into here.

direction to this availability, a narrowing down, until you arrive at the end of the line, the foundational ground that data are normalized to be.

If you want meta/data to become dear to researchers (especially undergraduates), they should be able to access and re-use it in multiple ways: a timeline of nurdling, say, or a decade's worth of legal filings that culminates with Diane Wilson and the San Antonio Bay Estuarine Waterkeepers winning a \$50 million settlement from Formosa. Don't rush, take all the time you need, and you'll confirm that all that digitized stuff from Diane's barn has badass written all over it.⁵

But validating my interpretation, rigorous as it is, is near the bottom of our Why Make Data Available? list. One recent version of that list comes from PECEniks Grant Otsuki, Angela Okune, and Aalok Kandekhar, designers of a forthcoming availability experiment: to publish source data in PECE to accompany articles for the open source journal they help edit, *Engaging Science, Technology, and Society*. To make the case for this new experimental initiative, they outline for the STS scholarly community why they should consider taking on the extra work required for this new degree of hospitality; they will be helping to create:

- 1. An archive of work in the discipline. Currently, formal publications such as journal articles and books remain the main means that STS work is preserved in publicly accessible and credentialed forms. There is a vast amount of information that STS scholars produce that may be of interest to the community, but which remains inaccessible. Some such archives already exist, but increased sharing of this source material could help facilitate their growth.
- 2. Greater recognition of diverse contributions to scholarly research. STS scholars are well aware that the people recognized for major contributions are not always the people most responsible for them. Data sharing may make it possible to better acknowledge and credit the many people who contribute towards a research project. For instance, a research interlocutor could be named as the creator of a citable object for contributing

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⁵ All of this hospitality is courtesy of the enormous domestic care work of Tim Schütz, without whom the Formosa Plastic Global Archive would simply not be available.

- photographs they took. They could help to contextualize the photograph directly themselves through the metadata text.
- 3. Opportunities for new insights. STS data is often strongly tied to specific times and places, but this also means that the sharing of such source materials might inspire new insights when viewed by someone from a new vantage point—an interview conducted in the US in 2022 may be understood differently by someone in Taiwan in 2050, revealing something that could not be foreseen by the original data contributor. Encouraging different and creative interpretive use can become another reason for sharing data, beyond conventional logics of the reproducibility of findings
- 4. Pedagogical opportunities—Data sharing may provide new resources that could be used in STS teaching. Students may learn about research methods and analysis by being able to see the source data from which a conventionally published piece was produced.

"All of these possibilities," they conclude, "emerge from our sense that "data" should be treated not as stable and self-contained *objects* that speak for themselves, but as embodiments of *relationships*, which underlie our work as STS scholars. We expect that most benefits of data sharing will come from extending and diversifying these data relationships."

Use Case #5: How can availability persist until the Martian Invasion?



When we started building PECE a dozen years and more ago, we didn't imagine that we would become empirical humanities meta/data *archons*, but here we are. We are responsible for preserving all the meta/data (and its excesses) created out of the Big Stuff in Diane Wison's barn so that

it, and the terabytes of other data which we archive, will be available...until when?

We were once in a meeting where a librarian had just given a wide-ranging presentation to scholars in the humanities and social sciences, when a participant asked how long their digital data needed to last. "Until the Martian Invasion," the librarian quipped, going on to elaborate on the many unresolved, and perhaps unresolvable, challenges of data archiving. It's a phrase that has stuck with us, a powerful sign of the horizonless horizon in which we work to make data available. Even the most apocalyptic climate catastrophes have date ranges, a too-near or a distantenough point at which you might imagine the maintenance of availability to be pointless, or which at least provides a specified end when you could consider your work done. But to accept responsibility for making ethnographic data available until the Martian invasion is to take on an open-ended timeline, for reasons that are largely imaginary. Digital infrastructure doesn't need to last only for a very long time; in the Mars Attacks! scenario, the work of availability is interminable. One hopes.

Our "sustainability plan" is thus not only a work in progress, it has to remain a work in progress. I don't have a satisfactory way of ending this use case, other than to note that, although we work always to keep PECE free (as in free beer), <u>QDR began</u> asking for deposit fees in 2019.

<u>Use case #6: How can we interpret "rigor" rigorously?</u>

Let me conclude by first thanking you for your time, patience, and/or indulgence. I never produce the text I planned at the start, and it always ends up being longer than I planned—and more playful than I planned. I hope my example of interpreting Diane Wilson's demeanor, character, or persona hasn't misled you into thinking I don't take rigor seriously. I don't know why I am still surprised that play—despite an enormous scholarly literature on its importance, despite recognition of its universal nature, essential to all human activity including doing science, by cultural anthropologists who loathe universalisms and essentialisms—continues to be experienced or read or cast as non-serious, a lapse in if not a failure of rigor. I am down with a lot of legacy effects of positivism, but not that one.

This essay has enacted its subject matter, making available in essay form how an empirical humanist interprets through or out of available materials: texts, images, structures of digital infrastructures, etc. It has tried to make its data dear to you for a period of time, for you to assess my interpretations and, more importantly, advance your own. Essays are paradigmatic of the rigorous style of empirical humanism I practice. As Theodor Adorno put it:

The essay is both more open and more closed than traditional thought would like. It is more open in so far as, through its inner nature, it negates anything systematic and satisfies itself all the better the more strictly it excludes the systematic. . . . On the other hand, the essay is more closed in that it labors emphatically on the form of its presentation. The consciousness of the nonidentity between presentation and presented material forces the form to make unlimited efforts.⁶

So this essay ends with one more effort to take rigorousness seriously by taking availability seriously, once again making available my ethnography of availability to show how serious I have been and remain about rigor...

When I searched on "rigor" on the instance of PECE we use to think through



Enter your keywords

rigor

SEARCH

SEARCH

TENDENCY TOWARD POSITIVISM

because of CAQDAS privileging of grounded theory. "A tendency toward epistemological positivism provides conditions for further misunderstandings around the software's capabilities by substituting methodological rigor for descriptions of a particular aspect of the resea.

REPRODUCIBILITY AND REPLICABILITY IN SCIENCE

OPINION: A LESSON OF THE PANDEMIC: ALL PRINTS SHOULD BE PREPRINTS

CODING, COUNTING AND CULTURAL CARTOGRAPHY

HUMANIST INTERPRETATION VERSUS CODING TEXT SAMPLES

COLLABORATION IN GROUNDED THEORY ANALYSIS: REFLECTIONS AND PRACTICAL SUGGESTIONS:

these conceptual/cultural issues and how to design digital infrastructure that furthers them, I got 6 results: a link to a National Academy of Sciences report on Reproducibility and Replicability in Science, another link to an article in Qualitative Sociology on "Humanist Interpretation Versus Coding Text Samples," and an annotation I made to an article that analyzes how "grounded theory" has become

⁶ Adorno, T. W. 1984 "The Essay as Form." New German Critique, no. 32: 151–71. http://dx.doi.org/10.2307/488160. (First published in 1954, perhaps positivism's heyday.)

the methodological and conceptual engine of almost all Computer Assisted Qualitative Data Analysis Software (CAQDAS), like MaxQDA or AtlasTI. My annotation to the article appears (we have not made the copyrighted article itself publicly available on our platform) in an ongoing collective thinking/writing/designing essay called Ab-Using Coding Structures:

TENDENCY TOWARD POSITIVISM

because of CAQDAS privileging of grounded theory, "A tendency toward epistemological positivism provides conditions for further misunderstandings around the software's capabilities by substituting methodological rigor for descriptions of a particular aspect of the research process. Rigor is treated

descriptions of a particular aspect of the research process. Rigor is treated not as the product of concise conceptual thought, ideas, and examination of research materials within a particular research framework but as something provided by a som

software tool able to produce replicable data sets." p. 184

Clicking on the "Analytic (Question)" text in my annotation will take you to pages of different responses, by different users, to different articles, but all to the shared question: "(How) are technological infrastructures said to shape, enable and constrain collaboration at this stage of the research process?" Researchers can find their way from there "down" to any of the articles or other data objects that users were responding to, or "up" to the set of analytic questions of which this question was one part, "QUERYING ANALYSES OF COLLABORATION AND APPROACHES TO DATA," questions created by and credited to our superuser Angela Okune.

Everything in this analytic meshwork—the texts, the annotations, the questions—is a meta/data object, whose relationships to each other have been carefully designed to generate new data, new analyses, and *new rigors* that are "the product of concise conceptual thought, ideas, and examination of research materials within a particular

research framework." And we expose as much of this meta/data as possible, doing "anthropology in the open," outside in the archive...