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Interview with Deborah Winslow of the National Science Foundation

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Interview with Deborah Winslow of the National Science Foundation

*Jerome W. Crowder, Mike Fortun, Rachel Besara,
and Lindsay Poirier*

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Editors: Thank you for agreeing to this interview and doing it this way, I think that we all were happy to do this via Skype! Our plan is to have this conversation recorded, and we'll write up what essentially will be a kind of draft of that end product and then send that to you, and we can embellish it in various ways.

Deborah Winslow retired from NSF at the end of February 2019 and is currently a Senior Scholar at the School for Advanced Research.

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This edited volume concerns, broadly, “the anthropology of data” and is meant to be pretty wide ranging; I think we have succeeded. We have contributions from people in libraries and library science, archeologists, cultural anthropologists, visual anthropologists, so it’s pretty broad and we are very happy about that.

We think readers will similarly benefit from your perspectives on a similar kind of big picture overview, but from a more organizational point of view, that of a key funding agency (the National Science Foundation) that therefore advances the creation, preservation, and accessibility of anthropological data. So we’d like to begin by asking you about your perspectives on where the data conversation was when you first joined NSF, what it sounded like, and how NSF has changed, within the anthropology program but also throughout the agency more broadly, in thinking about and encouraging better data practices.

Deborah

WINSLOW (DW): I should begin by saying this is from my own perspective, of course, and nothing I say is endorsed by the National Science Foundation.

I came to NSF in 2005, and archiving of anthropological records was just becoming an issue personally for me, at that point. I had a friend, an anthropologist, who died of breast cancer and I was horrified to discover that her husband had simply taken all of her office materials and dumpstered them. I’m in my 70s now, and I realized even at that point that I was of a generation that was retiring and dying, and that we needed to think about this, and how we were going to preserve, not just the records of famous people whose records the National Anthropological Archives (NAA) was already to trying to acquire (to the extent that they had the funding to do so), but also less well-known people. People like my friend who had

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done stellar research in Sulawesi, in the late 1960s and early 1970s, and then did not pursue an academic career, but she had all of those field notes from a time that will never be again. All of the things that she saw, all of the things that she recorded—and she belongs to the generation, as I do, when you wrote down everything that you saw, and not just the things about the particular topic you were pursuing. And that was true of a lot of anthropologists: researchers who lived on islands in the Pacific, or who had been with tribes that now no longer exist, or even researchers who had been observers in urban environments in the process of growth and change. We needed ways that these materials could be preserved and also that others could know about them and get access to them.

So that was a personal mission as far as I was concerned. And then I started talking about it with senior anthropologists, some older than I am. I talked to a quite well-known anthropologist, also a Pacific specialist, who said that when Malinowski's widow published his diaries, her response and the response of many of her peers were to burn all of their notes, to destroy their diaries; they did not want that to happen to them. So I was a little taken aback by this (laughing). I didn't quite know what to do.

There are reports encouraging the accessibility of information collected with U.S. taxpayer funds that go back at least to the 1960s.¹ But in 1993, the Government Performance Results Act (GPRA) gave new prominence to what was called "accountability and transparency," including making research results publicly available. When I started at NSF in 2005, some efforts to implement GPRA for anthropology had been quite successful. For example, in biological anthropology, as researchers put together DNA sets and fossil sets, publicly accessible repositories were established. But there wasn't very much in cultural anthropology and little discussion of this within SBE [the Social, Behavioral, and Economic Sciences Directorate, where the anthropology programs are housed]. Around 2011, I was contacted by Oona Schmid of the American Anthropological Association (AAA) who was herself interested in this problem—actually, I had gone to the AAA and asked about their interest, and she was the person who

responded. She was in charge of their publication program at that time. So she said, “Why don’t we have a workshop on this?” and I said, “Fabulous, you will need to submit a proposal for us to review,” and we made an award that supported a small international workshop held at the AAA.²

That 2012 workshop produced the Registry of Anthropological Data, which certainly has been a wonderful first step.³ It was established so that if people did in fact create archives, they could let other people to know about them. I also had several conversations with Robert Leopold, who was the head of the National Anthropological Archives at the Smithsonian, who said he had identified 73 different anthropological archives in the United States, and that he had a list of those up on the NAA’s website where people could consult. So there was some effort in this area, but nothing systematic [for Cultural Anthropology] at NSF’s end.

And then, around this same time there were new White House initiatives to make basic data available to the public. In 2009, President Obama announced a new policy, the Open Government Initiative, and there also was a report [“Harnessing the Power of Digital Data for Science and Society”]. Consequently, NSF’s data management plan became an official requirement in the 2011 Grant Proposal Guide. In 2016, NSF announced the additional requirement that publications and peer-reviewed conference papers produced during an award, also be made available to the public. And boy has that been a work in progress for anthropologists!

Editors: [chuckling] Can you say more about that?

DW: Well, first of all, as you well know, anthropologists are a diverse bunch. There are those who collect a lot of quantitative data, particularly evolutionary anthropologists, and anthropologists who are looking at those embodied, physical effects of culture, or of context, or of practice, or of whatever, who collect a lot of anthropometric data. Those anthropologists actually have a good track record of making their data sets available. Ricardo Godoy at Brandeis has done that from research that has been funded in the lowland Amazonian basin with the Tsimane.⁴ But other than those folks, the very notion that what we do produces data has not always been accepted. What *are* data?

That workshop report got at what a range of things was encompassed by “data,” and a lot of the early data management plans we received looked very much like IRB applications: that is, they were about how subjects would, excuse me, people with whom you collaborate, your interlocutors we call them these days, would be protected. And the AAA had, I don’t know if they still do, an online ethics handbook of case studies on things like the importance of using pseudonyms and disguising the location of your village, and how even if people wanted to be revealed—as often the people we study want their names in publications—that you shouldn’t do this, because they didn’t know what they were getting into, and that sort of thing. So a lot of anthropologists basically came back to us with that, and that kind of worked against any sharing.

The data management plans are meant, first of all, to have the person describe what kinds of data they will have, and how they will keep it safe during fieldwork. In many worksites, that’s not obvious. And, then, how they will share that data and how they will archive it for the long term. The sharing and archiving have, for them, been the hardest part, but they are slowly getting there, I think. I think that they are slowly seeing that not everything has to be shared; that embargos can be used; that even a 50 year or 100 year embargo is better than nothing; and that some of it can be anonymized. There are degrees, you know, it is not all or nothing. I think that the consciousness of this, among students and to some extent senior researchers, has become much more refined and widespread.

Editors: We agree, it’s sometimes painfully slow but we think that you are right that there has been change, and our sense is that it is picking up. So what do you think has been most helpful in promoting that slow change? You suggest it’s a kind of change of consciousness, and we certainly try with our students to cultivate that consciousness, but do you also think that just forcing people to write those data management plans and similar requirements that NSF and other agencies are imposing has helped the change, too? And do you think that researchers are getting more support from their libraries or other places in helping write Data Management Plans? What other factors

have helped this transformation take place, in the last couple of years at least?

DW: Proposers are required to have a two-page data management plan and when proposals come in, we compliance check them, meaning that we actually look at the individual proposals and see if they have done what they are supposed to do. Some of it is automated; Fastlane now has ways of checking fonts and the numbers of pages, and so forth, but some things we still do by hand, and the data management plans (DMP) is one of those things. So, we look at every DMP when the proposal is received and if they are wildly wrong—you know, “I promise to protect my subjects and IRB requires me to destroy all of my data within twenty-four (24) months” or something like that—then we contact them and say, “this is not acceptable, here are what the standards are, and here are some suggestions, and here’s what the AAA website now says.” They [the AAA] added stuff about preserving data and sharing data on part 5 and 6 of the AAA ethics statement.⁵ So we basically educate them, and the DMPs provide us that avenue for doing that, one person at a time. I think that then the word slowly gets out. The missing piece in all of this, of course, is enforcement.

Editors: Let’s leave that problem aside for now ...

DW: Well, you could imagine that you could require them to provide URLs for where the data are available and we could check that. Sometimes they do, and we do. They could be in final reports, but particularly for dissertation students, final reports are usually *way* too soon in the whole process because they come in after they have done the research, but before they have actually written the dissertation, so, just getting some results listed is hard enough without asking them about their, you know, their archiving schemas.

Editors: Do you think journals may begin to require some kind of statement about archiving or “this data set now has a permanent identifier and you can find it here”? Is NSF thinking about trying to encourage those kinds of things?

DW: What they have done since the beginning of 2016 is require that all publications and juried conference presentations, that appear during the time of the award, be publicly available in

our archive, run by the Department of Energy (DOE). So, we ask people either to upload the final copy of published papers to that site where they are supposed to have universal identifiers of some kind, or if in cases where there are copyright issues, like with AAA publications, to upload the last version of the paper before it was copy edited and before the publisher had an investment in it, essentially. Those are linked to the final reports, and they can add to them later, and data sets can be a part of that, those final reports, and something that you can also link to. So, there's some movement in the direction, but not a lot of requirement. I would say that it's actually coming out less in the context of data sharing, and more from the growing concern with replicability.

Editors: We know that this is a big issue, and we recognize the importance of replicability and reproducibility for NSF broadly. So we are 100% supportive of the need for developing the entire language and terms and issues and protocols that support replicability or reproducibility. We are also 100% supportive of the need for other discourses concerning how to form and evaluate robust knowledge claims that do not necessarily rely exclusively on those terms and frameworks of replicability and reproducibility. Can you say how such concerns play out at NSF, or perhaps just within SBE? Is this something you are also concerned about, and trying to figure other alternatives and ways of thinking about what we are doing with our data and how we make knowledge out of that, that are not so dependent on the hegemonic constructs of reproducibility and replicability?

DW: Well, there's a lot of talk about it, and SBE is very broad, right? So, we have some fields that are really up in arms about this, for example social psychology, where some of the scandals have been, and all of the issues about p-hacking and that kind of thing, I don't think that anthropologists do that sort of thing. It is less, in that way, less real to most of us, but I did participate as a discussant on a panel at the 2018 AAA meetings in San Jose that were on exactly that topic for anthropology. There was concern about registering hypotheses ahead of time, and hypothesis testing, and so forth, although primarily among evolutionary anthropologists.

Editors: So you don't actually have those kinds of conversations within NSF, or within SBE? You have to go all the way to the AAA meetings?

DW: No, there have been those kinds of conversations within NSF but I think that there's a recognition that there's a wide range of issues at stake. We've had several speakers come in to talk about this. To my mind, there was an issue of *Science* recently on "prediction" that has several articles concerned with reproducibility and its limits [Science, 3 February 2017, Vol. 355, Issue 6324] that I thought was a very sensible issue. A lot of what we do is data exploration and data description and we use a lot of descriptive statistics, when we use any at all. Then at some point you have a sort of narrower subset, where you think, "ok, here is some area in the data where I actually think we could make a prediction and then test," and you partition it and say, "I'm going to use this as a test set, and register the hypotheses at that point," and then test. It's not something that applies to all research or at all stages of the research, even by people who would do that kind of thing [i.e., quantitative research]. So, I think that at least within anthropology, we have a certain amount of learning of what the issues really are, and standing back and thinking about how we draw conclusions, as you say, how we draw robust conclusions from the material we collect.

I met a very well-known systems biologist, Stuart Kauffman, at a party some years ago, and he spent a lot of time convincing me that the entire model for social science was not physics, it was biology—in the sense that things are constantly changing and that we deal with agentive systems: they create possibilities that may or may not be realized, and then those create more possibilities over time, and so on. He had a term for it, the "adjacent possible." It was a very interesting conversation and I found it very convincing, and in some ways a great relief. In the beginning of one of his books, Kauffman says that if you measure the trajectory angles of balls hit on a billiard table now and you did it a hundred years from now, they would be the same. But there's not much in biological or human social systems that you can say that about, there are not those kinds of immutable laws, and that we have to think of different ways

of thinking about them. But that doesn't mean that at some point we don't have senses of what we really think is going on. And we can devise ways to test our intuition.

Editors: Well, if only all biologists were as thoughtful as Stuart Kauffman! Your story also makes us think of anthropology's "adjacent disciplines": whether it's biology or public health, or environmental sciences, or ecology, anthropologists are thrown increasingly into the mix, in the broad push for interdisciplinary and multidisciplinary and transdisciplinary research. We find ourselves collaborating *more* now, possibly, than even five or ten years ago: with public health scientists, with epidemiologists, with stream biologists, with a whole set of people who have their own ideas (that they are also getting from their own subcultures) about what data is, why you should share it, and how you do it, what infrastructure this all needs, and so on. Going back again to your experience at NSF in some of those conversations, both in your own research and at NSF as those kinds of initiatives become more of the research and funding environment that anthropologists find themselves in, how has all that pushed our own discipline forward regarding how anthropologists think about data?

DW: This certainly is increasingly more of the funding environment at NSF and it's where the larger grants are available. So, for people who can play in those areas, it's very attractive. It's hard for me to answer this question in a historical way, because it's unclear to me how far back these trends go. They are certainly here now, but they may have been here longer than we realize. Here I'm thinking of that cross-cultural study that Jean Ensminger and Joe Henrich did on generosity and altruism, when game theory first became popular in evolutionary anthropology, behavioral ecology, political science, and so forth. They did a very quantitative cross-cultural study and I think that they were funded partly by economics [and cultural anthropology] and they involved economists as well as other kinds of social scientists.⁶ So I have a sense that there were always anthropologists who were doing these kinds of collaborations, and we've just had low awareness it was going on. The Human and Social Dynamics program (HSD) at NSF, which was in the early 2000s, brought anthropologists and a lot of

different kinds of social scientists together, and they did a lot of these larger data collection and therefore larger data management projects on this as well.⁷

In the contemporary environment, I think this has increased. Recently I got an email from a researcher named Bilinda Straight, who is at Western Michigan University, and her dissertation research many years ago, I believe, was on the manufacture of ostrich shell beads. She was a very cultural anthropologist, but over the years she has started working with a biological anthropologist and looking at the effects of stress from warfare, because she works in Western Kenya, with the Samburu, where there has been chronic, low-level conflict. Recently she has been doing a new study involving epigenetics, looking at the effects of the drought about ten years ago on the children who were carried and born during that drought, and how that is carried into the present. She just emailed, and the reason I'm bringing this up is, first of all, it shows the evolution of a cultural anthropologist: she has not become less cultural, she has just expanded the kinds of data she collects. And she wrote me to tell me that the first round of data were now available, they had posted them on a public site, for other researchers to use, even though they themselves had not analyzed them yet.⁸ That's the first time I've heard of an anthropologist doing that! I have in other programs I'm part of, like the ecology of infectious diseases, researchers do that increasingly. Not routinely, necessarily, but there is much more a sense of building a common science and asking and informing each other about what you're finding because then they will benefit and they will move things forward, and you will benefit from what they know, and you are working together in this common endeavor. That's not necessarily the way that all anthropologists look at what they do. But the idea that you are somehow participating in this larger science and building of common knowledge, I think is a new direction for us in a lot of ways.

Editors: That's so commendable and such a wonderful example of new data practices. Is this something you think NSF can or should be encouraging, or will encourage?

DW: Oh, I think it does; whether it's characteristic of anthropology per se, I don't know. I think it should be. But when I say it's new, it isn't like we haven't always, as anthropologists, theorized in ways that we thought would apply in other places. Whether it's Radcliffe-Brown theorizing about social structure or Malinowski theorizing about basic human needs, somehow. ... I guess I'm not quite sure how it's different, maybe it's that there is a difference in taking the theory from one context and then saying, "ok, does that work in *my* context?" To saying, "well, let me see your data and we'll put them together with my data." The minute I said that, I'm reminded of an NSF-funded project that is currently ongoing, that is being led by Jeremy Koster at University of Cincinnati. He and his group are looking at simple societies, horticultural and forager societies, getting people to contribute common data and sometimes going out and getting new data, and sometimes just mining old data for a set of questions they are trying to ask over all of these societies.⁹ I think that they are up to over 50 societies right now. That's sort of a synthesis as well as a common framework, and is increasingly something that I'm seeing in the program.

Editors: Let's go back a little bit, to the data management plan issue. You said that there has been improvement but that at least early on one of the frequent things you saw was people in effect reproducing IRB language and terms. How would you like to see the next generation of Data Management Plans go? Are there particular directions that NSF is trying to push for DMPs, whether it's put your data in a common repository, whether that's something like the Qualitative Data Repository¹⁰ or SocArxiv,¹¹ or just ensuring that your own data is properly stored and backed up maybe with an embargo plan. What does the next generation of DMPs look like from your and from the program's perspective?

DW: I think that for me currently, the big issue is that you go out and collect data, you go through it and you say, "OK, here is this set, either of interview data I can anonymize, or some statistical extraction that I have made from this data, and I can make this available to other people who are working on, or may be interested because they are working on similar things."

And then, what do you do with it? Either your university, and more and more universities *have* archives that other people can use, particularly if they have an academic conduit to work through ... or you can put it up on the Harvard Dataverse sites, where, as I understand it, they do not curate it all, you just upload the data set as you wish and anybody can get at it.¹² Or the Cornell site,¹³ which is heavily curated, or the Michigan site,¹⁴ which is also heavily curated both in terms of permissions and in the terms of the kind of metadata that are required. I think that the Cornell model and the Michigan model have better long-term viability, but very few people contact them ahead of time to find out what the requirements are going to be, and what permissions they need to get from people, or what kind of metadata they need to have, and so their data sets often can't be posted.

What I've learned in this process is that it can't be in an entirely post-research plan. People *have* to think about it ahead of time. That requires not only how they are going to collect the data and what the data are, but what are going to be the requirements of sharing it? And archiving it? And that's not really part of the plans—it *could* be: from our perspective they are very open ended. There are two blank pages, right? So, it's not like they couldn't do that, and they *are* panel reviewed, so we could set standards for panels and then those standards would eventually filter down, when they are criticized for not doing that. We could require them to do that, but it's not *just* a matter of dumping data someplace. That was the first step, dumping anyplace but a dumpster. That's a first step, and I think that there's a lot of room for improvement in terms of actually accomplishing what we want to accomplish here.

Editors: I think that it also involves those of us who teach to come up with new ways of teaching about this, in methods courses or elsewhere. Some of us really are trying to make this a part of our teaching practices, how we really need to rethink data practices. Some of us find ourselves in a more advantageous position, in which our primary interlocutors are fairly elite: scientists, investment bankers, government and non-governmental organization (NGO) officials, lawyers, or policy actors. The

more problematic issues of Malinowski being a racist in his field notes, or the need to provide the most stringent protections to very vulnerable people, are much more easily managed, and that gives us an advantage to explore questions like, “what does it mean to make all of our interviews public as soon as we do those?” In terms of the “adjacent possible,” the adjacent field here is oral history, where the starting assumption of oral historians is that people want their stories to be known, and you want their stories to be known, and then they’re out there. It still requires the institutional infrastructure of libraries or other repositories that are going to take that data and preserve it and keep it going and so on. So you don’t escape all of these issues, but it’s a way to get your foot into a different door, and then keep gradually opening it from there. One of the things that we have been noticing as we get deeper into conversations around research data infrastructure and implementing some of these practices in our own research is not only how metadata enables enriched data practices, allowing for the long-term preservation of data and the sharing of data, but that it also makes us better ethnographers: suddenly you are required to respond to a certain set of questions, a structured set of questions that can open up new ways of thinking about your research and the world more broadly. Do you have any ideas about how we can frame the conversation about data in new ways, so it’s not just around this bureaucratic plan we have to follow because NSF says we have to if we want its money, but more about: how can good data management practice make us better anthropologists?

DW: I think it can, I fully agree with you. Recently I was at one university, for example, talking to students about their research, students who were thinking of submitting proposals, and I asked them to define a research question. I got absolutely blank stares. And those students are as smart as they come. It’s because they don’t think in terms of addressing a problem, they think in terms of learning about a place and becoming expert in some area. I think that it produces really inadequate proposals as a result, because they tell us everything that they already know, and all they are going to find out, and the pro-

posal begins something like, “in this research I will show that” which is kind of deadly for a research proposal.

Thinking in terms of a question, and then the kinds of information, or data, that you need to answer that question, is tremendously more promising. I had a young woman who was going to study gender and women’s role in accomplishing X, and I had her step back and think and say, “OK, you’re saying that women do this differently than men, right?” and she said, “yeah, I guess so.” “So, maybe you are going to want to interview both men and women and compare them? And then you think that they are accomplishing X, how do you know that they are accomplishing X, what else could this be about? And so what would you measure in order to do that?” So, the whole process of thinking in terms of collecting specific kinds of information, and how that informs the questions you are finally getting around to asking—it’s a very iterative process.

Sometimes when I talk with students I say, “now you have a really big question, like, ‘does windfarming destroy the environment?’ So, what would you want to know?” Not: what could you collect? But: what if you had access to all of the data in the world, and you could just get Domino’s to deliver data instead of delivering pizza, what would you want to know? And then their minds begin to expand. Once you start thinking in terms of data, I think you do become more creative and expansive, you know, you say, “it would be nice to compare soil before and after.” I don’t know how to measure soil, but you can write-in money for a soil scientist, you may want to know ahead of time how they collect the samples, or you may want LANDSAT photographs to compare to where they have done this and they haven’t. And none of those are sort of key anthropological skills at the moment, right? But they are anthropological questions. So now you are thinking about how to bring in this information from other places, and somehow you are putting together the pieces of a puzzle to answer a question, and those pieces are data.

Now, the downside of this is that you can become so focused on a question so as you are not open to the world you are in,

and that's really an important part of what we do, as well. I began by talking about my crisis about my friends disappearing and their field notes going with them. They came out of an era where you really were open to everything around you, even though you might have a focus for your project. For example, in my first fieldwork, which began in 1973, I wrote down the weather everyday: it rained, it didn't rain, it was dry, it was over 110 °F. I work in Sri Lanka. "It rained, it rained": that kind of thing. Well, it was mostly because I didn't know what else to write down half of the time, but I'm so grateful to have that information now because the weather has changed there, and I would have never had that local-level, village-level information, when people say, "We can't grow rice as many times a year because there isn't rain." I can look at the rain now and compare it to rain then. Those are sort of the trade-offs: you are in this place and you want to know everything about it, and on the other hand, you are pursuing a particular research project in this context and for that project you have to be conscious of asking real questions, and then figuring out the kinds of information you need to consider them.

Editors: Some of us are quite fond of quoting Marilyn Strathern who says that, "if anthropology has one trick up its sleeve, it's that it collects more data than it knows what to do with." That's one of its strongest disciplinary virtues, an ethos that distinguishes it from other disciplines. So thinking better in terms of data should also make us better anthropologists and better fieldworkers, reinforcing the notion that we're constantly on the lookout for more data, in the same way that the molecular biologist or the ecologist or the astronomer is. Where can I get more data? What other kinds of data can I get, or create? And how do I codify that, structure it to make sure that it's preserved, and, maybe, re-used? That kind of voraciousness that seems to be such a part of the wider "data paradigm" could also fuel the futures of anthropology too.

DW: Yes, but it can go the other way, right? It can make you so focused on answering a specific question that everything else just seems irrelevant. And I would say the hallmark of our field is that there's nothing that is irrelevant.

NOTES

1. See Pasek, J. E. (2017). Historical Development and Key Issues of Data Management Plan Requirements for National Science Foundation Grants: A Review. <https://doi.org/10.5062/f4qc01rp>
2. https://www.nsf.gov/awardsearch/showAward?AWD_ID=1159109
3. http://anthroregistry.wikia.com/wiki/Workshop_report
4. See Leonard, W. R., Reyes-García, V., Tanner, S., Rosinger, A., Schultz, A., Vadez, V., Zhang, R., ... Godoy, R. (2015). The Tsimane' Amazonian Panel Study (TAPS): Nine years (2002–2010) of annual data available to the public. *Economics and Human Biology*, 19, 51–61. doi: <https://doi.org/10.1016/j.ehb.2015.07.004>
5. <http://ethics.americananthro.org/category/statement/>
6. See, for example, Ensminger, Jean, and Joseph Henrich, eds. *Experimenting with Social Norms: Fairness and Punishment in Cross-Cultural Perspective*. Russell Sage Foundation, 2014. <http://www.jstor.org/stable/10.7758/9781610448406>
7. https://www.nsf.gov/news/news_summ.jsp?cntn_id=100685
8. Information about these data sets can be found at <http://homepages.wmich.edu/~bstraigh/data.html>
9. https://www.nsf.gov/awardsearch/showAward?AWD_ID=1743019&HistoricalAwards=false
10. <https://qdr.syr.edu/>
11. <https://osf.io/preprints/socarxiv/>
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