

Decolonizing Linguistics

Edited by

Anne H. Charity Hudley

Christine Mallinson

Mary Bucholtz

OXFORD
UNIVERSITY PRESS

PART 2: DECOLONIZING METHODS OF TEACHING AND RESEARCH

9. **From Gatekeeping to Inclusion in the Introductory Linguistics Curriculum: Decolonizing Our Teaching, Our Psyches, Our Institutions, and Our Field** 175
Lynnette Arnold
10. **Decolonizing Historical Linguistics in the Classroom and Beyond** 195
Claire Bowers and Rikker Dockum
11. **Towards a Decolonial Syntax: Research, Teaching, Publishing** 219
Hannah Gibson, Kyle Jerro, Savithry Nambodiripad, and Kristina Riedel
12. **Decolonising Methodologies Through Collaboration: Reflections on Partnerships and Funding Flows from Working Between the South and the North** 245
Rajendra Chetty, Hannah Gibson, and Colin Reilly
13. **Open Methods: Decolonizing (or Not) Research Methods in Linguistics** 263
Dan Villarreal and Lauren Collister
14. **Revitalizing Attitudes Toward Creole Languages** 293
Ariana Bancu, Joy P. G. Peltier, Felicia Bisnath, Danielle Burgess, Sophia Eakins, Wilkinson Daniel Wong Gonzales, Moira Saltzman, Yourdanis Sedarous, Alicia Stevers, and Marlyse Baptista

PART 3: DECOLONIZING RESEARCH BY CENTERING COMMUNITY AND ACTIVISM

15. **Solidarity and Collectivity in Decolonizing Linguistics: A Black Diasporic Perspective** 323
Anne H. Charity Hudley, Christine Mallinson, Kahdeidra Monét Martin, Aris Moreno Clemons, L. J. Randolph Jr., Mary Bucholtz, Kendra Calhoun, Shenika Hankerson, Joy P. G. Peltier, Jamie A. Thomas, Deana Lacy McQuitty, and Kara Seidel
16. **Growing a Bigger Linguistics Through a Zapotec Agenda: The Ticha Project** 363
May Helena Plumb, Alejandra Dubcovsky, Moisés García Guzmán, Brook Danielle Lillehaugen, and Felipe H. Lopez

Dan Villarreal is assistant professor of linguistics at the University of Pittsburgh. As a computational sociolinguist, Dan's scholarly work sits at the nexus of two research traditions: bringing together computational methods and sociolinguistic perspectives. In particular, his research seeks to expand sociolinguists' research toolkits by making computational techniques and sociolinguistic data accessible and usable; explore how speakers and listeners make sense of the tremendous phonetic variability that characterizes everyday speech; and foster a computational sociolinguistics (and a linguistics more broadly) that addresses its research questions faster, better, and more equitably. His recent work has investigated computational methods to automatically code sociophonetic variation (and how to make these methods equitable), as well as gender segregation and speech communities in New Zealand. His research has been published in *Language Variation and Change*, *Laboratory Phonology*, and the *Journal of Pragmatics*. Dan pronounces his last name [vɪlɹɑɪ̃æɫ].

Lauren B. Collister is an engagement coordinator at the organization Invest in Open Infrastructure. At the time of writing this chapter, she was director of the Office of Scholarly Communication for the University of Pittsburgh Library System. Her goal as a scholarly communication professional is to set the default to Open; as part of that mission, she oversaw the Pitt Open Library Publishing program for Open Access journals and coordinates services relating to repositories, copyright, and open scholarship. Lauren's background is in linguistics; her PhD research work on multimodal online communication introduced her to the complexities of linguistic data and the meta-scholarship of publishing and access to research. She previously served as chair of the Committee on Scholarly Communication in Linguistics for the Linguistic Society of America and is the co-editor of the recently published *Open Handbook of Linguistic Data Management* from MIT Press.

Abstract: Open Methods are resources that pertain to at least one stage in the linguistics research process and are available free of charge to all who can find them. This chapter describes the current state of Open Methods in linguistics, including benefits and structural barriers to further development. Then, in the spirit of the dictum that those who do not learn from history are doomed to repeat it, the authors discuss how Open Access (a longer-developed cousin to Open Methods that focuses on publishing research) fails to adequately serve research(ers) in the global context despite its agreeable basic premise. They critically assess whether Open Methods can help decolonize linguistics research—or whether it merely allows already privileged linguistics to accrue greater privilege. The chapter ultimately presents a cautiously optimistic model for anticolonial Open Methods in linguistics, with recommendations and examples of practices and policies throughout.

Key Words: Open Methods, research methods, Open Access, colonialism, computational approaches

13

Open Methods

Decolonizing (or Not) Research Methods in Linguistics

Dan Villarreal (he/him)
University of Pittsburgh

Lauren Collister (she/her)
Invest in Open Infrastructure

In academia generally and linguistics specifically, there has been a growing movement toward the open sharing of resources that can mitigate resource barriers to research.¹ These Open Methods streamline and standardize various steps of research methodology, and creators make Open Methods freely available for other researchers to use to avoid each researcher or team re-creating processes and methodologies for each project. On the surface, this trend appears positive, even potentially heralding a democratization of linguistics research. The same was true, however, of Open Access, a longer-developed cousin to Open Methods in the Open Science movement that focuses on publishing research; despite the optimistic outlook of the 2002 Budapest Open Access Initiative declaration (Guédon, 2017), 20 years of Open Access have instead seen colonial results (Meagher, 2021). Indeed, the current landscape of Open Methods in linguistics has been influenced by power structures and resource imbalances; there is a real danger of Open Methods merely becoming an instrument reproducing the hegemony of North American and European research(ers) in linguistics, like Open Access before it. There is thus no better time to critically assess whether and how Open Methods can help decolonize linguistics research. This critical assessment leads us to present a cautiously optimistic model for anticolonial Open Methods in linguistics; we preview this model throughout the chapter with recommendations and examples of practices and policies.

Before we proceed, it's important to know that both authors enjoy structural privilege with respect to Open Methods, derived from our affiliation with a

wealthy research-centered US university, from the specific jobs we hold at that university, and from other identities. (We expand on our positionalities in the section “Model for an Anticolonial Open Methods.”) The descriptions and recommendations mentioned in this chapter thus inherit our biases and limited perspectives, so we intend this chapter to be a starting point rather than the last word, leaving space especially for scholars from different backgrounds to iterate and expand on our ideas.

What Are Open Methods in Linguistics?

What we call Open Methods in linguistics encompasses a varied range of existing practices and products by linguistics researchers. What unites these practices and products is that they are not only *open*, as they are available free of charge to all who can find them (via the internet), but also *methodological*, as they pertain to at least one stage in the linguistics research process (e.g., data collection, data processing, data analysis, visualization). For the purposes of this chapter, we limit our discussion to Open Methods developed primarily by and for linguistics researchers, although general-purpose Open Methods such as the R statistical programming language (R Core Team, 2022) have tremendously benefited linguistics research.

While both *open* and *methodological* are difficult to precisely circumscribe, we argue that linguistics is best served by an expansive view of Open Methods. To illustrate, we provide some examples of Open Methods in Table 13.1. To be clear, this is not a representative sample (a full survey of Open Methods is beyond the scope of this chapter) but rather a judgment sample selected by Dan to illustrate the range of Open Methods in linguistics. While this list is not representative in the statistical sense (we are not claiming that three of every ten Open Methods are software), in terms of methodological traditions (given Dan’s research interests, it skews toward corpus sociophonetics), or in terms of who produces Open Methods (given Dan’s professional networks, it skews toward high-resource countries), all of these resources are open and methodological in different ways. When Open Methods are software, they are typically open in the additional sense of open source: the underlying computer code is published and thus available for critique, contributions, and customization by users. As Santiago Barreda (personal communication) eloquently states, “customizability allows others to ‘fix’ things that [creators] may not even understand as broken.” Furthermore, Open Methods coexist in an ecosystem; while the customizability of Praat (Boersma & Weenink, 2021) makes building extensions possible (e.g., Barreda, 2021), its software-oriented rather

Table 13.1 Illustrative examples of Open Methods in linguistics

Category	Product	Description	Available since
Linguistic data	Corpus of Regional African American Language (Kendall & Farrington 2020)	Dataset	2018
	World Atlas of Language Structures Online (Dryer & Haspelmath 2013)	Dataset	2013
Software	Praat (Boersma & Weenink 2021)	Phonetics/phonology analysis software	1995
	NORM (Thomas & Kendall 2007)	Vowel normalization and plotting tool	2007
	FAVE (Rosenfelder et al. 2011)	Forced alignment and vowel extraction software	2011
Software extensions	Rbrul (Johnson 2009) ^a	R extension for variable rule analysis	2009
	phonR (McCloy 2016)	R package for phonetic analysis/visualization	2012
	Fast Track (Barreda 2021) ^{a,b}	Praat extension for formant tracking	2021
Tutorials for using Open Methods	How to train your classifier (Villarreal et al. 2019) ^a	Documentation of sociolinguistic auto-coding in R with worked example	2019
	Using Praat for linguistic research (Styler 2021)	Praat user guide	2011

^a Also published with a companion journal article.

^b First published when at least one author was on tenure track (see Appendix A).

than task-oriented documentation necessitates a user guide (Styler, 2021). Finally, while these resources are all freely *available*, that does not guarantee they are all equally *accessible* to potential users; Dan's own Open Method (Villarreal et al., 2019), for example, contains data in an R-specific file format, includes R code that is not legible to beginning users, and is only available in English. We bring up these examples not to gatekeep "openness," but to inspire creators to make adjustments to their resources to make them as open as possible. To that end, we have developed a "Spectrum of Open Methods" rubric (Collister & Villarreal, 2022), accompanied by a case study assessing Villarreal et al.'s (2019) Open Method. In this respect, we draw inspiration from Catherine D'Ignazio and Lauren Klein's (2020, p. 4) self-assessment of "aspirational metrics to live [their] values" for their *Data Feminism* book. In other words, a method that's imperfect but published is always more open than a method that never gets published because it's not perfect yet (Barnes, 2010).

Open Methods have gained interest in large part because they can yield efficiency gains for linguistics researchers (beyond their creators); for example, recent computational methods automate (or semiautomate) time-consuming tasks such as time-aligning segmental boundaries (Rosenfelder et al., 2011), measuring formants (Barreda, 2021), and coding sociolinguistic variables (Villarreal et al., 2019). But of equal significance is the potential of Open Methods to mitigate or circumvent resource barriers that would otherwise exclude some potential researchers, such as those with precarious positions or at low-resource institutions. For example, collecting a sociolinguistic corpus is highly resource-intensive, but researchers can use the Corpus of Regional African American Language regardless of their access to recording equipment, a travel budget, or community contacts. (We'll complicate the idea that this is always a desirable outcome in "Open Methods Reappraised: Colonial or Anticolonial?" below.) Beyond individual researchers, perceived benefits to the field are transparency in research methodology (Nosek et al., 2015), a corrective measure for the "reproducibility crisis" in psychology and other fields (Gawne & Styles, 2022), expansion of benefits for translation work (Helsinki Initiative, 2019), and promoting best methodological practices. Open Methods can also benefit the practitioners who disseminate Open Methods themselves, for example by encouraging good record-keeping practices (following the philosophy that "your most important collaborator is yourself six months ago—and they don't answer emails").

These perceived benefits, however, are largely overshadowed by the costs of producing Open Methods. Some of these costs are at the institutional level, such as web-hosting services for digital tools, computational support for resource-intensive applications, or research staff to document, develop, translate, or curate materials. These institutional costs are not trivial, and that they are more likely to be borne by already-privileged institutions (Frischmann et al., 2014) is related to the colonialist corporate capture of Open Access (see "Open Access: Optimistic Intentions, Colonial Results" below). Indeed, as mentioned above, our own positionality and exposure result in all of the Open Methods in Table 13.1 coming from researchers working at universities in high-resource countries.

We argue, however, that the primary cost barrier to Open Methods in linguistics is researcher labor. Many Open Methods begin as resources that researchers create for their own projects; the steps needed to turn a resource created for a narrow use case into an Open Method may include: making the resource flexible for multiple use cases, vetting and testing source code, anonymizing data, securing rights or permissions for sharing data, creating documentation, making the method available, translating the documentation

and method into multiple languages, and getting the word out. In addition, researchers who create computer code often suffer from “code-shyness,” a reluctance to share their code because they are worried about its quality (Barnes, 2010). On top of these costs are a lack of benefits; because Open Methods are not “traditional research outputs” as defined by privileged research institutions in North America and Europe, they may not count toward researchers’ career advancement (see also Montoya, this volume). (Notably, several examples in Table 13.1 were published with a companion journal article—a traditional output on top of the Open Method itself.) Amid extraordinary competition for scarce faculty jobs and funding for research projects (Benedicto, 2018; Bonn & Pinxten, 2021), workers in precarious conditions generally calculate that they cannot afford the risk of spending time on Open Methods. As a result, many potentially useful resources for the broad linguistics community remain unshared and unknown except by those who traditionally hold social power and capital in the discipline, thereby reproducing exclusionary and colonial dynamics.

Open Methods thus represent an area where individual actors’ best interests do not align with the best interests of the field. A growing chorus of commentators and professional societies, including the Linguistic Society of America (LSA), have advocated bringing these interests into better alignment by incentivizing Open Methods and other forms of Open Scholarship (Alperin et al., 2022; Linguistic Society of America, 2018, 2021). As of the time of writing, US linguistics departments’ review, promotion, and tenure (RPT) policies run the gamut in terms of whether and how they count Open Methods toward career advancement. (See Appendix B for links to policies described here.) For example, at the University of Delaware’s department, “primary evidence for scholarly excellence [i.e., research]” includes refereed articles, books, and “publicly available data collections,” though not other Open Methods like software. The University of Illinois Chicago’s department recognizes “the development of scholarly digital material” as secondary to journal articles, placing Open Methods alongside “conference papers [and] lectures.” The Ohio State University’s linguistics RPT policy gives tenure-track faculty no incentive to create Open Methods, as it does not explicitly list Open Methods as evidence of research excellence. The University of Georgia’s linguistics RPT policy states that “the concept of ‘publication.’ . . . may include linguistic corpora, software, or other digital materials,” but only “if these items are subject to a stringent peer-review process.” Despite good intentions, this policy fails to acknowledge the fact that linguistics doesn’t have models for “stringent peer-review” of outputs like software (although good models may be adopted from other fields), nor does it specify what

would count as “stringent peer-review”; in other words, scholars working under this policy have no clear guidance on how to proceed or whether Open Methods will be worth their while professionally. In short, there is no consistent policy landscape with respect to Open Methods in RPT. In fact, only one Open Method in Table 13.1 was created by a researcher on the tenure track, and the author went through the extra effort of creating a companion journal article because it would otherwise be difficult to get credit for citations or to gauge user uptake (Santiago Barreda, personal communication; see also Howison & Bullard, 2016; Huang et al., 2015). All the other examples were created by PhD students, postdocs, tenured professors, or the international equivalents thereof (see Appendix A). This pattern suggests that the pressure to conform to established scholarly expectations and metrics imposed by the tenure track creates a strong disincentive against creating Open Methods; the risks may be even higher for researchers in positions of precarious employment.

Creating the conditions for a greater proliferation of Open Methods would require change in several parts of the academic-research ecosystem. Readers at research institutions in positions of power should advocate for the inclusion of Open Methods in RPT, with clear and reasonable expectations. This call entails change at both the departmental and university levels; university leadership can guide departments to better recognize Open Methods and invest resources to support researchers who wish to open their closed methods. Furthermore, we call for journals to widen the scope of what is considered publishable, to include articles that are “purely methodological” without needing to also demonstrate direct theoretical impact or novel empirical data; doing so would create needed incentives for researchers working in departments that only recognize traditional research outputs. The publication of such “purely methodological” work has historically been limited to computational linguistics, which overlaps in disciplinary norms with engineering (Charity Hudley et al., 2023). One common past practice in linguistics is to publish methods works in handbooks, few of which are Open Access (with the notable exception of Berez-Kroeker et al., 2022). Additionally, “purely methodological” work is starting to appear in more journals. Some notable examples are the recent computational sociolinguistics research topic in *Frontiers in Artificial Intelligence* (e.g., Bartelds et al., 2020; Ghyselen et al., 2020; Kendall et al., 2021), *Laboratory Phonology* (e.g., Villarreal et al., 2020), and especially *Linguistics Vanguard* (e.g., Barreda, 2021; Hall-Lew et al., 2022), which has published special issues on using smartphones to collect data for linguistic research (Hilton & Leemann, 2021) and sociolinguistic data collection in the COVID-19 era (Sneller, 2022).

Thus far, we have laid out the case for Open Methods as lowering resource barriers to carrying out linguistics research, as well as recommendations for advancing Open Methods. This case for Open Methods, however, considers only the perspective of linguistics research in high-resource countries, rather than the resource barriers that researchers face in the rest of the world. To consider the global implications of Open Methods, we turn our focus to Open Access (OA), a cousin in the Open Science movement that has a longer track record than Open Methods. Both in linguistics and beyond, OA presents a cautionary tale of an unobjectionable moral premise that has been captured by colonialist hegemony in the guise of humanitarianism and social justice (e.g., Meagher, 2021; Nkoudou, 2020a; Roh et al., 2020). To ensure Open Methods does not suffer from a similar outcome, then, we proceed to learn from OA history.

Open Access: Optimistic Intentions, Colonial Results

Open Access as a movement grew out of the Open Source movement, and they overlap considerably not only through use of tools like copyright licenses to make work accessible and reusable, but also in the shared ideology that intellectual properties are public goods (Willinsky, 2005). The original Budapest Open Access Initiative (BOAI) declaration from 2002 began with the statement “An old tradition and a new technology have converged to make possible an unprecedented public good”; in this statement, there was a ringing optimism for the potential of technology to make research and scholarship more accessible and to put “communication at the heart of the scientific enterprise” (Guédon, 2017, p. 2). The BOAI declaration celebrated the work of enterprising academics and “DIY publishers” around the world who had been creating scholar-led Open Access scholarly journals online since the 1980s (Moore, 2020).

We agree with the basic premise that making scholarly work as open as possible is beneficial for the creators and users. In fact, many researchers assert that they agree with this basic premise as an obvious “right thing to do” with considerable benefits to the public, research participants, and other beneficiaries of research (see e.g., Day et al., 2020). However, as Charlotte Roh, Harrison Inefuku, and Emily Drabinski (2020) write, despite its unobjectionable premise, OA does not “automatically reverse the biases and norms of scholarship itself” (p. 49). Indeed, in implementation and practice in the global community, OA has suffered from many colonial practices and perspectives that hamper its uptake and distort its purpose. Recent endeavors

in Open Access involve capitulation to corporate interests seeking to profit from scholarly endeavors (e.g., Priego et al., 2017). Kate Meagher (2021) points out that the interests of for-profit, capitalist scholarly publishing companies have particularly damaged OA in the Global South, resulting in “political capture of the OA agenda by Northern corporate and state interests.” Other colonial practices that persist include privileging the English language in its most inscrutable form, “academic language” (Figueroa, 2022), and presuming that North American and European notions of quality and prestige are shared by all (Nkoudou, 2020b; see also Khan, this volume; Montoya, this volume; Plumb et al., this volume). We explore these issues by highlighting the response to OA from scholars in two regions: the African continent, where OA was introduced relatively recently, and Latin America, where OA was embedded in scholarly practice long before its introduction in North America and Europe.

Thomas Hervé Mboa Nkoudou has written about the mismatch between the goals of the Open Access movement and the needs and contexts of scholars across the African continent. One key aspect of the resistance to OA from African scholars is that “the desire to make African knowledge visible was not truly an African initiative” (2020a, p. 28). Reggie Raju et al. (2020, p. 57) expand on this assertion:

There have been assumptions about the Global South remaining ignorant and underdeveloped until it has access to the Global North’s knowledge. In an attempt to ‘eradicate’ this ignorance and promote development, there has been a push for the Global North to focus on improving the flow of information to the Global South. (see also Braithwaite & Ali, this volume; Chetty et al., this volume)

This basic colonizer principle encounters resistance to OA from African scholars, because while OA seemed to hold promise after the declarations of the early 2000s, its implementation has failed to account for “African realities” that are different from the support structures available in rich countries: “Many factors suggest that OA is a matter for the rich countries of the Global North, where basic infrastructural matters, such as regular and reasonable salaries for academics, public research grants, access to the internet, electricity, well-supported libraries, and comfortable and safe workplaces have long been settled” (Nkoudou, 2020a, p. 27). For example, according to Raoul Kamadjeu, founder of the *Pan African Medical Journal*, much African research is researcher-funded, and because of their investment of personal funds, many African researchers are resistant to depositing their data or other materials that they have collected using their own personal funds without any tangible benefit to them (Kuchma et al., 2022). The proliferation of article

processing charges (APCs) demanded by for-profit journals creates a new barrier to participation in publishing because many institutions in Africa do not fund APCs (Kuchma et al., 2022), and the continued reliance on impact factors privileges journals written in English (Curry & Lillis, 2018; Lillis et al., 2010); taken together, the result is that Western notions of prestige and quality of research are replacing the local systems of knowledge and knowledge sharing, which Nkoudou calls “epistemicide: destruction of local epistemologies that are replaced, in this case, by a Western paradigm” (2020a, p. 32; see also Leonard, 2020).

In Latin America, a different reality exists: OA has long been part of the system for disseminating scholarship through a network of regional information systems supported by Latin America-based disciplinary repositories and discovery indices such as SciELO and Redalyc (SciELO—Scientific Electronic Library Online n.d.; Sistema de Información Científica Redalyc n.d.) even before the Budapest Open Access Initiative. Two-thirds of the funding for research and publishing comes from public funds, and publishing for scholars and universities has generally not been outsourced to commercial, for-profit publishers to the extent that it has in North America and Europe (Babini & Machin-Mastromatteo, 2015; but for a troubling counterexample see Priego et al., 2017). Yet so-called global movements consistently ignore this reality and attempt to impose colonizer structures and systems on regional networks that arguably are already achieving the goals of the Open movement. In Latin America, for instance, the majority of journals are university-supported and scholar-led, and these journals do not charge APCs (Alperin et al., 2008; Babini & Smart, 2006). Contrary to these well-established Open practices, when the European OA funder initiative “Plan S” was introduced to Latin America, it included provisions about paying APCs to publishers (Debat & Babini, 2020; López & García, 2019). In short, the hegemonic European view of OA presupposes corporate for-profit capture to the detriment of existing structures, raising concerns not only about who can afford to pay the fees to publish but also about the relationship between what gets published and what will make money for the publisher. As Dave Ghamandi asks, “If scholarly publishing is not controlled by its authors and readers, is it worth having?” (qtd. in Gilliland et al., 2021, p. 3).

Considering the negative impact of hegemonic OA in Africa and Latin America, resistance to imposition of a hegemonic notion of Open scholarship centers on expanding participation in both the creation of scholarship and the structures that enable scholarship. Privileged, high-resource scholars thought they were doing Africans a favor by freely sharing scholarly products from high-resource countries; however, this equality of access does not mean equity or even equality in participation in knowledge creation (Faciolince & Green,

2021). The systems in place for high-resource countries fail to match those in local contexts; these systems construct barriers of exclusion by expecting conformity to colonial paradigms. True global participation in Open scholarship requires prioritizing the various ways that people in a variety of local contexts create, contribute, share, enrich, and benefit from scholarship. Open Methods have great potential to open up participation in the creation of scholarship in particular, but only if they are designed and implemented by scholars in their local contexts and with the full participation of the community that uses and benefits from the scholarship (Hall-Lew et al., 2022; Langley et al., 2018). Furthermore, in this collaborative approach, Open Methods must reflect local needs and considerations.

Linguists should consider embedding the question of ethical and collaborative openness into their methodologies, particularly when working with communities. To put it mildly, linguistics has a long track record of methodologies that ignore and devalue communities' priorities, needs, and epistemologies, especially with respect to the documentation of Indigenous languages (Langley et al., 2018; Leonard, 2017; 2020; see also Plumb et al., this volume; Riestenberg et al., this volume). As a result, when researchers conduct language documentation research, community input is needed in the process of making recordings and other materials to discern whether access to data should be restricted for ethical and cultural reasons (Langley et al., 2018; Seyfeddinipur et al., 2019). Community ownership over research decisions and involvement at the point of creation represents a way to use methodology as a means of decolonizing linguistics. Here we suggest that readers consult Gary Holton et al. (2022), especially regarding Indigenous Data Sovereignty and the CARE principles in language data practices, and seek to apply their approach to Open Methods work. If the conditions under which the data was collected were extractive or exploitative, those ethical violations can't be wiped away just by making the data open (Nature Editorial, 2020). Some communities may resist exploitation of their resources and culture by refusing Open Access to their materials and processes, opting instead for community control and ownership because true decolonization cannot occur without money and resources directed to communities to work on projects of their own selection, design, and operation (see Montoya, this volume).

Open Methods Reappraised: Colonial or Anticolonial?

In this section, we consider who stands to reap the benefits of Open Methods, and who is left out. As mentioned above, Open Methods can lower resource

barriers (removing the need to collect data, to learn how to code, and/or to learn particular methods directly from an expert), so nominally Open Methods should benefit underresourced scholars. In reality, however, Open Methods as currently practiced in linguistics primarily benefits *slightly* under-resourced scholars in high-resource countries, who still enjoy numerous manifestations of privilege in consuming and producing academic research. Rather than “lowering barriers,” a better metaphor for the predominant effect of Open Methods is “tilting the playing field.” We find that “tilting the playing field” happens at multiple levels: who can benefit from Open Methods, who creates impactful Open Methods, and how methodology reflects and impacts epistemology.

From our perspective, the most visible examples of Open Methods have come from high-resource countries; as mentioned above, this is true of all of our Open Methods examples in Table 13.1. As a result, research can be conducted more quickly and easily as long as it fits colonizer scholars’ views of legitimate methodology. Because theory and methods are inextricably intertwined (Charity Hudley et al., forthcoming), this dominance of methods by high-resource countries raises the possibility of “epistemicide.” The epistemological tug of colonizer methodologies is only heightened by “tech-solutionism,” where every technological tool is sold as solving problems without engagement or critical appraisal (Braybrooke & Jordan, 2017). Even when algorithmic methods are created with good intentions, like removing hate speech from social media sites, the extractive paradigm of their creation can result in harmful consequences (see Bender & Grissom, 2024).

We find the “lowering barriers” metaphor most wanting when it comes to who can benefit from Open Methods. First, scholars still require informational and/or technological resources to discover and utilize Open Methods. For example, some scholars in Kenya and South Africa face inadequate internet access (Bezuidenhout et al., 2017), a problem that Open Methods cannot compensate for. Second, Open Methods do not work equally well for all languages or varieties (e.g., Koenecke et al., 2020), so they may benefit only researchers working on majority languages. Forced-alignment algorithms (McAuliffe et al., 2017; Rosenfelder et al., 2011), for example, automatically align segmental annotations to stretches of text; these tools can save users hours of painstaking labor, facilitating wider-scale analysis of acoustic phonetic data. However, these algorithms require language models trained on large amounts of data, and pretrained models only exist for majority languages and varieties (Bender et al., 2021; Gooden, 2022; see also Bender & Grissom, 2024). Third, taking advantage of the “latest and greatest” Open Methods

often requires substantial computational resources and/or expertise. For example, a method now exists for applying forced alignment to minority languages without needing the type of huge corpus on which a language model of English would typically be trained (Barth et al., 2020); taking advantage of this method, however, requires computational know-how and time commitment far greater than simply downloading a pretrained model. Another example is the use of automatic speech recognition (ASR) to facilitate sociolinguistic transcription; whereas Google's and Amazon's ASR systems are far user-friendlier than the "latest and greatest" ASR Open Method based on the Kaldi Speech Recognition Toolkit (Chodroff, 2018), these commercial systems woefully underperform a Kaldi-based system (Markl, 2022). In short, there is a real danger of Open Methods merely becoming another instrument reproducing the hegemony of North American and European research(ers) in linguistics.

The cumulative result is this: scholars who are already privileged are likely to be disproportionate beneficiaries of Open Methods. In an example that we stress should not be taken to represent challenges facing scholars in underresourced countries as a whole, Shelome Gooden (personal communication) describes how Caribbean scholars not only don't take advantage of Open Methods, but also get left further behind as these methods—and the means for discovering them—build upon one another over time. Thus, Open Methods can actually exacerbate pre-existing resource disparities between US and Caribbean linguists; indeed, much linguistics research has grown increasingly computational and quantitative, with corresponding increases in processing power, storage, and associated costs necessary for research (Charity Hudley et al., forthcoming). Gooden's own practices, which include training Caribbean colleagues on Open Methods like Praat, represent a model to counteract this process of growing inequality. As a native Jamaican who received her graduate training in the United States and now is a professor and administrator at a high-resource US-based research university, Gooden is utilizing the opportunities afforded her to share Open Methods' benefits with Caribbean scholars.

An anticolonial lens prompts us to refine our earlier recommendation to recognize Open Methods as legitimate indicia of scholarship in RPT policies (e.g., Linguistic Society of America, 2018; 2019; 2021), adding the qualifications that these policies should consider Open Methods expansively and shouldn't require "impact" or "stringent peer-review." First, these policies should take an expansive view of Open Methods, ranging from software-heavy products to methodological know-how (Table 13.1). We further encourage departments to consider recognizing meta-practices that increase

the quality and anticolonialism of Open Methods. To revisit the above example of Gooden's work in the Caribbean, while she is not *creating* an Open Method via her Praat outreach, she is nevertheless lowering resource barriers to Caribbean researchers—and in so doing, contributing to linguistics scholarship more broadly. Expansive policies can both undermine the hegemony-reproducing potential that Open Methods represent and avoid the problem of tech-solutionism (see Bender & Grissom, 2024).

Second, we discourage departments from using traditional “impact” metrics to assess Open Methods. Citation counts, a frequent measure of impact for traditional research outputs, are inaccurate for Open Methods, as many authors fail to cite software (Howison & Bullard, 2016) or data (Huang et al., 2015). When citation metrics are available and appropriate, we encourage their responsible use in evaluation, necessarily coupled with other measures that demonstrate impact. For best practices, we suggest consulting the recommendations of the “Humane Metrics” initiative (Agate et al., 2022; Humane Metrics Initiative, n.d.). As part of this rethinking of metrics and impact, we also recognize the need for linguists to listen to communities to understand what “impact” means for them. For example, Kristine Stenzel (2014) discusses the sustainability of research in a community after the completion of a project, and the misunderstanding that teaching a community to do research is a desirable outcome for the community. We encourage resistance against the idea that creating an Open Method is a proxy for community engagement and community benefit.

Third, not only is “stringent peer-review” unrealistic for Open Methods in linguistics (as discussed above), but it would also have negative colonial ramifications for Open Methods. Beyond its ostensible quality-control function, peer-review also functions as a mechanism for corporate control of academic journal content (Fyfe et al., 2017), so we fear that requiring peer-review would only further tilt the creation of Open Methods to those with pre-existing privilege. Nevertheless, we do recognize that Open Methods would benefit from quality control, especially with respect to indicators of openness like user-friendliness that are difficult for single creators to self-assess (Collister & Villarreal, 2022). As such, we would like to see professional societies like the LSA help foster structures to promote quality in Open Methods without reinscribing colonial hegemony, building on their collection of resources on ethics in linguistics research (Linguistic Society of America, n.d.). We also encourage individual researchers to advocate for Open Methods within professional organizations; for example, Lauren previously chaired the LSA's Committee on Scholarly Communication in Linguistics and, at the time of writing, is a board member of LingOA.

Fortunately, good models for peer review for data, software, and methods already exist. We would like to particularly highlight the peer-review policies and procedures for datasets and software used by the *Journal of Open Source Software*, the generalist journal *Data*, and the publisher PLOS (Journal of Open Science Software, 2018; MDPI, n.d.; PLOS, n.d.). The *Journal of Open Humanities Data* also provides a resource for guidance on reviewing data papers and an example of a data policy for a publication (Journal of Open Humanities Data, n.d.). The nonprofit academic organization rOpenSci peer-reviews software for the R language using a peer-review process that it touts as “transparent, constructive, non adversarial and open” (rOpenSci, n.d.). Finally, to avoid further tilting the playing field toward the epistemological and methodological agendas of scholars in high-resource countries, outlets that publish Open Methods should provide clear policy documents and recommendations so a broad range of researchers globally can contribute to the conversation around Open Methods.

Model for an Anticolonial Open Methods

Throughout this chapter, we have made many recommendations for changes in policies and practices to foster a productive and anticolonial future for Open Methods in linguistics. However, our recommendations must be understood in the context of our positionalities; we both enjoy privilege with respect to Open Methods, providing us leeway and agency to resist existing institutional structures. We derive this privilege in part through our affiliation with a wealthy research-centered US university, which affords us resources (computational resources, journal subscriptions, prestige) that facilitate learning about, implementing, and disseminating Open Methods. In addition, many of our examples come from those communities most visible to us in our lived experience; to date, our knowledge and experience of research practices and challenges beyond a small circle of high-resource countries comes mostly from secondhand conversations and reading the writings of scholars in these contexts, rather than lived experience. Indeed, this very chapter—which only exists because Dan and Lauren have been recognized as having the legitimacy to write it—is a manifestation of our privilege with respect to Open Methods.

Crucially, Dan’s and Lauren’s job security is not at odds with engagement in Open Methods—we both have much greater agency than do most scholars vis-à-vis Open Methods. Dan’s job was created with methodological innovation in mind; his department’s RPT policies were recently revised to include Open Methods, with enthusiastic support from his department colleagues.

Lauren's entire job *is* scholarly communication and open scholarship, and in her prior faculty position she was reviewed and promoted on the basis of doing that work. Her work as a librarian involved RPT policies that are framed much differently than those for faculty in disciplinary departments, for example by explicitly validating a variety of modes of scholarship as equally relevant for review. Dan is currently on the tenure track; while this position is more precarious than that of a tenured professor, it represents much greater job security than graduate students, recent PhDs, and faculty with non-tenure-track positions, and it affords Dan the visibility to disseminate Open Methods. Finally, as a L1 English-speaking, hearing, cisgender hetero, white-passing male, Dan has never had to face questions about his computational bona fides. Lauren also benefits from privileges derived from being L1 English-speaking, hearing, white, cisgender, and hetero-passing, although she also has experience as a queer person in a nontraditional, precarious employment position. As a librarian without a degree in library science and a linguist working outside a linguistics department, Lauren faces insinuations about her credentials in two worlds. Without seeking to diminish important differences in our positionalities, we stress that we both write from a position of privilege with respect to Open Methods.

Thus, while we present our model for an anticolonial Open Methods (Table 13.2), a summary of this chapter's recommendations, we stress that this model inherits our biases and limited perspectives—our recommendations are likely to be most relevant to the Northern colleagues and institutions that we are most acquainted with. As a result, we intend this model to be a starting point rather than the last word—literally, version 1.0, with the assumption of later and better versions to follow. We explicitly invite iterations, expansions, and critiques of these recommendations, especially from scholars working in underresourced contexts who can better speak to how these recommendations can better reflect their situations.

Within our model for an anticolonial Open Methods lies a tension—or a contradiction, depending on your viewpoint—in that we appeal to colonizer institutions (universities, journals, etc.) to help create an anticolonial future for Open Methods. Put differently, can Open Methods ever be anticolonial if they are supported by colonizer institutions? Would a rich university support Open Methods if it didn't envision Open Methods as upholding the larger colonialist project? These sorts of challenges align with the refusal model described by Montoya (this volume): researchers should eschew research products that are “most valued in the reward structures of the institution,” such as formal theoretical work that is “practically unusable for any kind of teaching or language revitalization,” instead prioritizing the needs of

Table 13.2 Model for an anticolonial Open Methods (version 1.0), by Dan Villarreal and Lauren Collister, used under a Creative Commons—Attribution 4.0 International License. We explicitly invite iterations, expansions, and critiques of these recommendations.

Audience	Recommended policies and practices
Individual scholars	<ul style="list-style-type: none"> • Cite Open Methods when using them so creators get credit, and don't be afraid to give creators constructive feedback • Invite creators of Open Methods for trainings or class visits • When creating Open Methods, consult the Spectrum of Open Methods for ideas on how to minimize resource barriers (Collister & Villarreal 2022) • Include the community in methodology development in addition to creation and description of research content • Propose a special issue of a journal on Open Methods (e.g., exploring use cases and research done using a particular Open Method) • Make connections with colleagues who want to benefit from Open Methods but are limited by resource barriers, for example by publishing in outlets that are located in your partner community, or by presenting at conferences that are attended by scholars beyond your home institution or country • Don't be afraid to share imperfect methods or code (or to be honest about shortcomings) • Reverse the one-way flow of knowledge by citing underrepresented scholars
Departments	<ul style="list-style-type: none"> • Explicitly include Open Methods in RPT policies, with clear, reasonable, and anticolonial guidelines (i.e., no requirement of “stringent peer-review” or traditional “impact” metrics) • Train students to use and produce Open Methods • Host symposiums and special events, invite guest speakers, and record/live-stream events so attendance isn't limited to those physically present
Universities	<ul style="list-style-type: none"> • Assist departments in revising RPT policies to recognize Open Methods, with clear, reasonable, and anticolonial guidelines • Mandate institutional review boards to develop ethical, anticolonial guidelines and policies on Open Methods and Open Science for human subjects research. • Hire experts in open science and foster institutional open science expertise to support researchers' creation of Open Methods • Commit monetary or in-kind support to publishers and initiatives that foster Open Scholarship and Open Methods creation, e.g., by participating in institutional subsidy models such as for the Open Library of Humanities (Open Library of Humanities n.d.) • Support local publications and conferences that explore the use of Open Methods • Record/live-stream in-person events in order to broaden participation

Table 13.2 Continued

Audience	Recommended policies and practices
Journals	<ul style="list-style-type: none"> • Publish more “purely methodological” work so Open Methods can be recognized via “traditional research outputs” • Utilize the Spectrum of Open Methods in peer-reviewing “purely methodological” submissions to help make them more open (Collister & Villarreal 2022) • Resist corporate capture through intellectual property transfer clauses to corporations; retain copyright with the journal or the authors • Consider switching to Open Access and/or joining collaborative organizations like LingOA • Invite special issues or special sections on Open Methods
Professional societies	<ul style="list-style-type: none"> • Promote and support structures to promote quality in Open Methods in an anticolonial way • Incentivize Open Methods (e.g., awards for exemplary Open Methods) • Incorporate Open Methods into training, workshops, and conferences • Resist corporate capture through intellectual property transfer of conference materials or journal publishing

the community. While these are serious challenges, we believe that the decolonization of Open Methods is unlikely if it depends only on individual selfless acts of refusal from scholars working in the shadow of employment/funding scarcity. Instead, even a modicum of institutional support can open a path forward for anticolonial researchers affiliated with colonial institutions to gain institutional status and power in order to effect change. It is not inevitable that Open Methods will reproduce the inequities that have come to light with the Open Access movement. With conscious attention to the framing around Open Methods and incorporation of anticolonial practices, we can envision a different future.

Conclusion

In closing, Open Methods cannot be a panacea for the aspects of linguistics research that are fundamentally extractive and exploitative. Making a methodology openly available will not cover for research projects that are not, at their core, ethically or methodologically sound. For decolonization to really happen, money and resources need to be given to marginalized communities to do their work, and partnerships with these communities must first benefit

the community members before the career track of a researcher. The older cousin of Open Methods, Open Access, represents a cautionary tale where colonialism masquerades as openness, for example when corporate capture of open resources introduces profit and prestige motives that actively harm their creators, or when Open Access is introduced as a universal good that presumes the existence of resources that may not actually be available. Our outlook is nevertheless (cautiously) optimistic. By acting on these issues now, when Open Methods in linguistics remains at an early stage, we can ensure an Open Methods that benefits all linguistics researchers, and not only those with pre-existing privilege.

Appendix A. Table 1 author status

This appendix provides data to support the claim that “only one Open Method in Table 1 was created by someone on the tenure track”. By “created”, we refer to first publication (we thus exclude new authors of FAVE since its original 2011 publication).

In US higher education, *tenure* is security of employment, obtained only after a probationary period during which scholars are said to be “on the tenure track”. Among scholars in Table 1 were based at US institutions of higher learning at the time, all were either pre-PhD or, like tenured professors in the US, had security of employment.

All webpages accessed March 16, 2022. If pages are no longer available at these URLs, please use the Internet Archive’s Wayback Machine (<https://web.archive.org/>) to view versions of these pages cached on March 16, 2022. The Wayback Machine does not capture LinkedIn pages, so the Supplementary Materials contains PDF versions of the LinkedIn CVs (Rosenfelder, Fruehwald, Evanini, and McCloy) saved February 28, 2022.

Product	First published	Author	Position at publication	Country	TT or equivalent?	CV
Corpus of Regional African American Language	2020	Tyler Kendall	Associate Professor	US		https://pages.uoregon.edu/tsk/pdfs/CVTK.pdf
		Charlie Farrington	Research Associate	US		https://chariefarrington.files.wordpress.com/2021/10/farrington_cv_202110.pdf
World Atlas of Language Structures Online	2013	Matthew Dryer	Professor ^a	US		http://www.acsu.buffalo.edu/~dryer/

Product	First published	Author	Position at publication	Country	TT or equivalent?	CV
		Martin Haspelmath	Senior Researcher & Honorary Professor	Germany		https://www.ae-info.org/ae/Member/Haspelmath_Martin
Praat	1995	Paul Boersma	PhD student	Netherlands		https://www.fon.hum.uva.nl/paul/
		David Weenink	Pre-PhD ^b	Netherlands		https://www.fon.hum.uva.nl/david/
NORM	2007	Erik Thomas	Associate Professor	US		https://chass.ncsu.edu/wp-content/uploads/sites/2/2020/07/VITAE_Thomas.doc
		Tyler Kendall	PhD student	US		https://pages.uoregon.edu/tsk/pdfs/CVTK.pdf
FAVE	2011	Ingrid Rosenfelder	Postdoc	US		https://www.linkedin.com/in/ingridrosenfelder/
		Josef Fruehwald	PhD student	US		https://www.linkedin.com/in/josef-fruehwald-16b73561/
		Keelan Evanini	Research Scientist	US		https://www.linkedin.com/in/keelan-evanini-4367b01/
		Jiahong Yuan	Researcher & Associate Director	US		https://www.ling.upenn.edu/~jiahong/
Rbrul	2009	Daniel Ezra Johnson	Research Assistant	US		http://www.danielezrajohnson.com/johnson_cv.pdf
phonR	2012	Dan McCloy	PhD student	US		https://www.linkedin.com/in/dan-mccloy-08933a5/
Fast Track	2021	Santiago Barreda	Assistant Professor	US	Yes	https://santiagobarreda.com/cv/
How to train your classifier	2019	Dan Villarreal	Postdoc	New Zealand		

(continued)

Product	First published	Author	Position at publication	Country	TT or equivalent?	CV
		Lynn Clark	Academic appointee with security of employment ^c	New Zealand		https://www.canterbury.ac.nz/arts/contact-us/people/lynn-clark.html
		Jennifer Hay	Academic appointee with security of employment ^c	New Zealand		https://www.canterbury.ac.nz/arts/contact-us/people/jennifer-hay.html
		Kevin Watson	Academic appointee with security of employment ^c	New Zealand		https://www.canterbury.ac.nz/arts/contact-us/people/kevin-watson.html
Using Praat for linguistic research	2011	Will Styler	PhD student	US		https://wstyler.ucsd.edu/files/willstylerciv.pdf

^a Position dates not publicly available. Dryer was at Buffalo from 1989 and was supervising PhD dissertations in the early 2000s (<http://www.acsu.buffalo.edu/~dryer/dissertations.htm>), so it is highly likely that by 2013 he was Full Professor or higher.

^b Position dates not publicly available. Praat's bibliography page (<https://www.fon.hum.uva.nl/paul/praat.html>) credits Weenink with a 1996 technical report, and Weenink's webpage indicates his PhD thesis was from 2006.

^c In New Zealand, academic appointees at Lecturer or above have security of employment (contrary to US tenure-track system). Webpages reflect current positions; Dan knows personally that all three were Lecturer or above in 2019.

Appendix B. Example US linguistics departments' review, promotion, and tenure (RPT) policies

This appendix provides sources used to support the claim that “US linguistics departments’ review, promotion, and tenure (RPT) policies run the gamut in terms of whether and how they count Open Methods toward career advancement.”

All pages accessed March 16, 2022. If pages are no longer available at these URLs, please use the Internet Archive's Wayback Machine (<https://web.archive.org/>) to view versions of these pages cached on March 16, 2022.

Institution	Department	Date	Link	Direct quotations
University of Delaware	Linguistics & Cognitive Science	4/25/2016	https://cpb-us-w2.wpmucdn.com/sites.udel.edu/dist/9/2591/files/2014/12/LCS-PT4.25.2016-11xwdew.pdf	"primary evidence for scholarly excellence [includes] . . . publicly available data collections" (p. 2)
University of Illinois at Chicago	Linguistics and Less Commonly Taught Languages	1/17/2017	https://lcsl.uic.edu/wp-content/uploads/sites/292/2019/04/Linguistics-PT-1.17.2017.pdf	"the development of scholarly digital material" as secondary to journal articles, placing Open Methods alongside "conference papers [and] lectures" (p. 2)
The Ohio State University	Linguistics	8/29/2016	https://oaa.osu.edu/sites/default/files/uploads/governance-documents/college-of-arts-and-sciences/division-of-arts-and-humanities/linguistics/Linguistics_APT_2016-09-06.pdf	N/A; publications for promotion & tenure described on p. 22
University of Georgia	Linguistics	9/5/2017	https://provost.uga.edu/_resources/documents/linguistics2017.pdf	"the concept of 'publication' . . . may include linguistic corpora, software, or other digital materials . . . if these items are subject to a stringent peer-review process" (p. 2)

Note

1. We want to acknowledge the many people whose labor improved this chapter. Andrea Berez-Kroeker, Jenny L. Davis, Tyrica Terry Kapral, and Jack Martin helped shape our thinking in the early stages of this research and shared literature and resources. Santiago Barreda, Emily Bender, Shelome Gooden, Tyler Kendall, Charlotte Roh, Betsy Sneller, and the editors of this collection provided thoughtful and helpful feedback on drafts. Any errors are ours alone.

References

- Agate, Nicky, Long, Christopher P., Russell, Bonnie, Kennison, Rebecca, Weber, Penelope, Sacchi, Simone, Rhody, Jason, et al. (2022). *Walking the talk: Toward a values-aligned academy* (White paper). <https://hcommons.org/deposits/item/hc:44631/>
- Alperin, Juan Pablo, Fischman, Gustavo, & Willinsky, John. (2008). Open access and scholarly publishing in Latin America: Ten flavours and a few reflections | Acesso livre e publicação acadêmica na América Latina: dez sabores e algumas reflexões, *Liinc em Revista*, 4(2). Instituto Brasileiro de Informação em Ciência e Tecnologia. doi: 10.18617/liinc.v4i2.269
- Alperin, Juan Pablo, Schimanski, Lesley A., La, Michelle, Niles, Meredith T., & McKiernan, Erin C. (2022). The value of data and other non-traditional scholarly outputs in academic review, promotion, and tenure in Canada and the United States. In Andrea L. Berez-Kroeker, Bradley McDonnell, Eve Koller, & Lauren B. Collister (Eds.), *The open handbook of linguistic data management*. The MIT Press. doi:10.7551/mitpress/12200.001.0001
- Babini, Dominique, & Machin-Mastromatteo, Juan D. (2015). Latin American science is meant to be open access: Initiatives and current challenges. *Information Development*, 31(5), 477–481.
- Babini, Dominique, & Smart, Pippa. (2006). Using digital libraries to provide online access to social science journals in Latin America. Association of Learned and Professional Society Publishers.
- Barnes, Nick. (2010). Publish your computer code: It is good enough. *Nature*, 467(7317), 753–753. doi: 10.1038/467753a
- Barreda, Santiago. (2021). Fast track: Fast (nearly) automatic formant-tracking using Praat, *Linguistics Vanguard*, 7(1). doi: 10.1515/lingvan-2020-0051
- Bartelds, Martijn, Richter, Caitlin, Liberman, Mark, & Wieling, Martijn. (2020). A new acoustic-based pronunciation distance measure. *Frontiers in Artificial Intelligence*, 3(39). doi: 10.3389/frai.2020.00039
- Barth, Danielle, Grama, James, Gonzalez, Simon, & Travis, Catherine E. (2020). Using forced alignment for sociophonetic research on a minority language. *Penn Working Papers in Linguistics*, 25(2), 2.
- Bender, Emily M., Gebru, Timnit, McMillan-Major, Angelina, & Shmitchell, Shmargaret. (2021). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, FAccT '21, 610–623. doi: 10.1145/3442188.3445922
- Bender, Emily M., & Grissom, Alvin II. (2024). Power shift: Towards inclusive natural language processing. In Anne H. Charity Hudley, Christine Mallinson, & Mary Bucholtz (Eds.), *Inclusion in linguistics*. Oxford University Press.
- Benedicto, Elena. (2018). When participatory action research (PAR) and (Western) academic institutional policies do not align. In Shannon Bischoff & Carmen Jany (Eds.), *Perspectives on language and linguistics: Community-based research* (pp. 38–65). De Gruyter Mouton.
- Berez-Kroeker, Andrea L., McDonnell, Bradley, Koller, Eve, & Collister, Lauren B. (2022). *The open handbook of linguistic data management*. The MIT Press. doi: 10.7551/mitpress/12200.001.0001
- Bezuidenhout, Louise M., Leonelli, Sabina, Kelly, Ann H., & Rappert, Brian. (2017). Beyond the digital divide: Towards a situated approach to open data. *Science and Public Policy*, 44(4), 464–475. doi: 10.1093/scipol/scw036
- Boersma, Paul, & Weenink, David. (2021). Praat software. <https://praak.org>
- Bonn, Noémie Aubert, & Pinxten, Wim. (2021). Advancing science or advancing careers? Researchers' opinions on success indicators. *PLOS ONE*, 16(2), e0243664. doi: 10.1371/journal.pone.0243664

- Braybrooke, Kat, & Jordan, Tim. (2017). Genealogy, culture and technomyth, *Digital Culture & Society*, 3(1), 25–46. doi: 10.14361/dcs-2017-0103
- Charity Hudley, Anne H., Clemons, Aris Moreno, & Villarreal, Dan. (2023). Language across the disciplines. *Annual Review of Linguistics*, 9(13), 1–20. doi: 10.1146/annurev-linguistics-022421-070340
- Charity Hudley, Anne H., Villarreal, Dan, & Clemons, Aris Moreno. (forthcoming). (Socio) linguistics—what is it good for? A case for liberatory linguistics. In Erica J. Benson & Bayley Robert (Eds.), *Needed research in North American dialects* (pp. xx–xx). Duke University Press.
- Chodroff, Eleanor. (2018). Kaldi tutorial. <http://eleanorchodroff.com/tutorial/kaldi/>
- Collister, Lauren, & Villarreal, Dan. (2022). *Spectrum of Open Methods*. Zenodo. doi: 10.5281/zenodo.6546894
- Curry, Mary Jane, & Lillis, Theresa. (2018). The dangers of English as lingua franca of journals. *Inside Higher Ed*. <https://www.insidehighered.com/views/2018/03/13/domination-english-language-journal-publishing-hurting-scholarship-many-countries>
- Day, Suzanne, Rennie, Stuart, Luo, Danyang, & Tucker, Joseph D. (2020). Open to the public: Paywalls and the public rationale for open access medical research publishing. *Research Involvement and Engagement*, 6(1), 8. doi: 10.1186/s40900-020-0182-y
- Debat, Humberto, & Babini, Dominique. (2020). Plan S in Latin America: A precautionary note. *Scholarly and Research Communication*, 11(1), 12–12. doi: 10.22230/src.2020v11n1a347
- D'Ignazio, Catherine, & Klein, Lauren. (2020). Our values and our metrics for holding ourselves accountable. *Data Feminism*. <https://data-feminism.mitpress.mit.edu/pub/3hxx418o/release/2>.
- Dryer, Matthew S., & Haspelmath, Martin (Eds.). (2013). *WALS online*. Max Planck Institute for Evolutionary Anthropology.
- Faciolince, María, & Green, Duncan. (2021). One door opens: Another door shuts?, *Development and Change*, 52(2), 373–382. doi: 10.1111/dech.12633
- Figuerola, Megan. (2022). Podcasting past the paywall: How diverse media allows more equitable participation in linguistic science. *Annual Review of Applied Linguistics*, 1–7. doi: 10.1017/S0267190521000118
- Frischmann, Brett M., Madison, Michael J., & Strandburg, Katherine J. (Eds.). (2014). *Governing knowledge commons*. Oxford University Press.
- Fyfe, Aileen, Coate, Kelly, Curry, Stephen, Lawson, Stuart, Moxham, Noah, & Røstvik, Camilla Mørk. (2017). *Untangling academic publishing* (Discussion paper). <https://doi.org/10.5281/zenodo.546100>
- Gawne, Lauren, & Styles, Suzy. (2022). Situating linguistics in the social science data movement. In Andrea L. Berez-Kroeker, Bradley McDonnell, Eve Koller, & Lauren Collister (Eds.), *The open handbook of linguistic data management*. The MIT Press. doi:10.7551/mitpress/12200.001.0001
- Ghyselen, Anne-Sophie, Breitbarth, Anne, Farasyn, Melissa, Van Keymeulen, Jacques, & van Hessen, Arjan. (2020). Clearing the transcription hurdle in dialect corpus building: The corpus of southern Dutch dialects as case study, *Frontiers in Artificial Intelligence*, 3. doi: 10.3389/frai.2020.00010
- Gilliland, Anne, Kati, Rebekah, Solomon, Jennifer, Ghamandi, Dave S., Cirasella, Jill, Lewis, David, & Dawson, DeDe. (2021). JLSC board editorial 2021. *Journal of Librarianship and Scholarly Communication*, 9(1). doi: 10.7710/2162-3309.2432
- Gooden, Shelome. (2022). Intonation and prosody in creole languages: An evolving ecology. *Annual Review of Linguistics*, 8(18), 1–18. doi: 10.1146/annurev-linguistics-031120-124320
- Guédon, Jean-Claude. (2017). Open access: Toward the internet of the mind. <https://www.budapestopenaccessinitiative.org/boai15/open-access-toward-the-internet-of-the-mind/>

- Hall-Lew, Lauren, Cowie, Claire, Lai, Catherine, Markl, Nina, McNulty, Stephen Joseph, Liu, Shan-Jan Sarah, Llewellyn, Clare, et al. (2022). The Lothian diary project: Sociolinguistic methods during the COVID-19 lockdown. *Linguistics Vanguard*. doi: 10.1515/lingvan-2021-0053
- Helsinki Initiative. (2019). Helsinki initiative on multilingualism in scholarly communication. Helsinki: Federation of Finnish Learned Societies, Committee for Public Information, Finnish Association for Scholarly Publishing, Universities Norway & European Network for Research Evaluation in the Social Sciences and the Humanities. doi: 10.6084/m9.figshare.7887059.v1
- Hilton, Nanna Haug, & Leemann, Adrian. (2021). Editorial: Using smartphones to collect linguistic data. *Linguistics Vanguard*, 7(s1). doi: 10.1515/lingvan-2020-0132
- Holton, Gary, Leonard, Wesley Y., & Pulsifer, Peter L. (2022). Indigenous peoples, ethics, and linguistic data. In Andrea Berez-Kroeker, Bradley McDonnell, Eve Koller, & Lauren Collister (Eds.), *The open handbook of linguistic data management*. The MIT Press. doi: 10.7551/mitpress/12200.003.0008
- Howison, James, & Bullard, Julia. (2016). Software in the scientific literature: Problems with seeing, finding, and using software mentioned in the biology literature. *Journal of the Association for Information Science and Technology*, 67(9), 2137–2155. doi: 10.1002/asi.23538
- Huang, Yi-Hung, Rose, Peter W., & Hsu, Chun-Nan. (2015). Citing a data repository: A case study of the protein data bank. *PLOS ONE*, 10(8), e0136631. Public Library of Science. DOI: 10.1371/journal.pone.0136631
- Humane Metrics Initiative. (n.d.). Values framework. *HuMetricsHSS*. <https://humetricshs.org/our-work/values/>
- Johnson, Daniel Ezra. (2009). Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass*, 3(1), 359–383. doi: 10.1111/j.1749-818x.2008.00108.x
- Journal of Open Humanities Data. (n.d.). Peer review process. <http://openhumanitiesdata.metajnl.com/about/editorialpolicies/>
- Journal of Open Science Software. (2018). Review criteria. https://joss.readthedocs.io/en/latest/review_criteria.html
- Kendall, Tyler, & Farrington, Charlie. (2020). The corpus of regional African American language. The Online Resources for African American Language Project. <https://oraal.uoregon.edu/coraal>
- Kendall, Tyler, Vaughn, Charlotte, Farrington, Charlie, Gunter, Kaylynn, McLean, Jaidan, Tacata, Chloe, & Arnson, Shelby. (2021). Considering performance in the automated and manual coding of sociolinguistic variables: Lessons from variable (ING). *Frontiers in Artificial Intelligence*, 4(43). doi: 10.3389/frai.2021.648543
- Koenecke, Allison, Nam, Andrew, Lake, Emily, Nudell, Joe, Quartey, Minnie, Mengesha, Zion, Toups, Connor, et al. (2020). Racial disparities in automated speech recognition. *Proceedings of the National Academy of Sciences*, 117(14), 7684–7689. doi: 10.1073/pnas.1915768117
- Kuchma, Iryna, Persic, Ana, Anand, Roheena, Siewicz, Krzysztof, & Kamadjeu, Raoul. (2022). *Policy into action: The UNESCO Recommendation on Open Science under the spotlight - actions for publishing*. Webinar. Open Access Scholarly Publishing Association, March 15, 2022. <https://oaspa.org/webinar-policy-into-action-the-unesco-recommendation-on-open-science-under-the-spotlight-actions-for-publishing/>
- Langley, Bertney, Langley, Linda, Martin, Jack B., & Hasselbacher, Stephanie. (2018). The Koasati language project: A collaborative, community-based language documentation and revitalization model. In Shannon Bischoff & Carmen Jany (Eds.), *Perspectives on language and linguistics: Community-based research* (pp. 132–150). De Gruyter Mouton.
- Leonard, Wesley Y. (2017). Producing language reclamation by decolonising “language.” *Language Documentation and Description*, 14, 15–36.

- Leonard, Wesley Y. (2020). Insights from Native American studies for theorizing race and racism in linguistics (response to Charity Hudley, Mallinson, and Bucholtz). *Language*, 96(4), e281–e291. doi: 10.1353/lan.2020.0079
- Lillis, Theresa, Hewings, Ann, Vladimirov, Dimitra, & Curry, Mary Jane. (2010). The geolinguistics of English as an academic lingua franca: Citation practices across English-medium national and English-medium international journals. *International Journal of Applied Linguistics*, 20(1), 111–135. doi: 10.1111/j.1473-4192.2009.00233.x
- Linguistic Society of America. (2018). Statement on evaluation of language documentation for hiring, tenure, and promotion. <https://www.linguisticsociety.org/resource/statement-evaluation-language-documentation-hiring-tenure-and-promotion>
- Linguistic Society of America. (2019). LSA revised ethics statement, final version. <https://www.linguisticsociety.org/content/lsa-revised-ethics-statement-approved-july-2019>
- Linguistic Society of America. (2021). Statement on the scholarly merit and evaluation of open scholarship in linguistics. <https://www.linguisticsociety.org/content/statement-scholarly-merit-and-evaluation-open-scholarship-linguistics>
- Linguistic Society of America. (n.d.). Ethics: Further resources. <https://www.linguisticsociety.org/resource/ethics-further-resources>
- López, Eduardo Aguado, & García, Arianna Becerril. (2019). Latin America's longstanding open access ecosystem could be undermined by proposals from the Global North. *LSE Latin America and Caribbean blog*. <https://blogs.lse.ac.uk/latamcaribbean/2019/11/06/latin-americas-longstanding-open-access-ecosystem-could-be-undermined-by-proposals-from-the-global-north/>
- Markl, Nina. (2022). Language variation and algorithmic bias: Understanding algorithmic bias in British English automatic speech recognition. *2022 ACM Conference on Fairness, Accountability, and Transparency, FAccT '22*, 521–534. doi: 10.1145/3531146.3533117
- McAuliffe, Michael, Socolof, Michaela, Mihuc, Sarah, Wagner, Michael, & Sonderegger, Morgan. (2017). Montreal forced aligner: Trainable text-speech alignment using Kaldi. Presented at the 18th Interspeech. Stockholm.
- McCloy, Daniel R. (2016). phonR: Tools for phoneticians and phonologists. R package, version 1.0-7. <https://cran.r-project.org/package=phonR>
- MDPI. (n.d.). Data—guidelines for reviewers. <https://www.mdpi.com/journal/data/guidelines>
- Meagher, Kate. (2021). Introduction: The politics of open access — decolonizing research or corporate capture? *Development and Change*, 52(2), 340–358. doi: 10.1111/dech.12630
- Moore, Samuel A. (2020). Revisiting “the 1990s debutante”: Scholar-led publishing and the pre-history of the open access movement. *Journal of the Association for Information Science and Technology*, 71(7), 856–866. doi: 10.1002/asi.24306
- Nature Editorial. (2020). Henrietta Lacks: Science must right a historical wrong. *Nature*, 585, 7. doi: 10.1038/d41586-020-02494-z
- Nkoudou, Thomas Hervé Mboa. (2020a). Epistemic alienation in African scholarly communications: Open access as a *pharmakon*. In Eve Martin Paul & Gray Jonathan (Eds.), *Reassembling scholarly communications: Histories, infrastructures, and global politics of open access* (pp. 25–40). MIT Press.
- Nkoudou, Thomas Hervé Mboa. (2020b). Epistemic alienation in African scholarly communications: Open access as a *pharmakon*. In Eve Martin Paul & Gray Jonathan (Eds.), *Reassembling scholarly communications: Histories, infrastructures, and global politics of open access* (pp. 25–40). The MIT Press.
- Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., Buck, S., et al. (2015). Promoting an open research culture. *Science*, 348(6242), 1422–1425. doi: 10.1126/science.aab2374
- PLOS. (n.d.). A reviewer's quick guide to assessing open datasets. *PLOS*. <https://plos.org/resource/peer-reviewing-data/>

- Priego, Ernesto, McKiernan, Erin, Posada, Alejandro, Hartley, Ricardo, Ortega, Nuria Rodriguez, Fiorimonte, Domenico, Gil, Alex, et al. (2017). Scholarly publishing, freedom of information and academic self-determination: The UNAM-Elsevier case. Authorea, Inc. doi: 10.22541/au.151160332.22737207
- R Core Team. (2022). R: A language and environment for statistical computing.
- Raju, Reggie, Claassen, Jill, Madini, Namhla, & Suliaman, Tamzyn. (2020). Social justice and inclusivity: Drivers for the dissemination of African scholarship. In Eve Martin Paul & Gray Jonathan (Eds.), *Reassembling scholarly communications: Histories, infrastructures, and global politics of open access* (pp. 53–64). MIT Press.
- Roh, Charlotte, Inefuku, Harrison W., & Drabinski, Emily. (2020). Scholarly communications and social justice. In Eve Martin Paul & Gray Jonathan (Eds.), *Reassembling scholarly communications: Histories, infrastructures, and global politics of open access* (pp. 41–52). MIT Press.
- rOpenSci. (n.d.). Software peer review. <https://ropensci.org/software-review/>
- Rosenfelder, Ingrid, Fruehwald, Joe, Evanini, Keelan, & Yuan, Jiahong. (2011). FAVE (forced alignment and vowel extraction) program suite. <https://github.com/JoFrhwld/FAVE>
- Scientific Electronic Library Online. (n.d.). SciELO. <https://scielo.org/en/>
- Seyfeddinipur, Mandana, Ameka, Felix, Bolton, Lissant, Blumtritt, Jonathan, Carpenter, Brian, Cruz, Hilaria, Drude, Sebastian, et al. (2019). Public access to research data in language documentation: Challenges and possible strategies. *Language Documentation & Conservation*, 13, 545–563.
- Sistema de Información Científica Redalyc. (n.d.). Sistema de Información Científica Redalyc, Red de Revistas Científicas. *Redalyc.org*. <https://www.redalyc.org/home.oa>
- Sneller, Betsy. (2022). COVID-era sociolinguistics: introduction to the special issue. *Linguistics Vanguard*. doi: 10.1515/lingvan-2021-0138
- Stenzel, Kristine. (2014). The pleasures and pitfalls of a “participatory” documentation project: An experience in northwestern Amazonia. *Language Documentation*, 8, 20.
- Styler, Will. (2021). Using Praat for linguistic research. <https://wstyler.ucsd.edu/praat/UsingPraatforLinguisticResearchLatest.pdf>
- Thomas, Erik R., & Kendall, Tyler. (2007). NORM: The vowel normalization and plotting suite. <http://lingtools.uoregon.edu/norm/norm1.php>
- Villarreal, Dan, Clark, Lynn, Hay, Jennifer, & Watson, Kevin. (2019). How to train your classifier. https://nzilbb.github.io/How-to-Train-Your-Classifier/How_to_Train_Your_Classifier.html
- Villarreal, Dan, Clark, Lynn, Hay, Jennifer, & Watson, Kevin. (2020). From categories to gradient: Auto-coding sociophonetic variation with random forests. *Laboratory Phonology*, 11(6), 1–31. doi: 10.5334/labphon.216
- Willinsky, John. (2005). The unacknowledged convergence of open source, open access, and open science. *First Monday*. doi: 10.5210/fm.v10i8.1265