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Citational Justice and the Politics of Knowledge Production

Article *in* interactions · September 2022 DOI: 10.1145/3556549

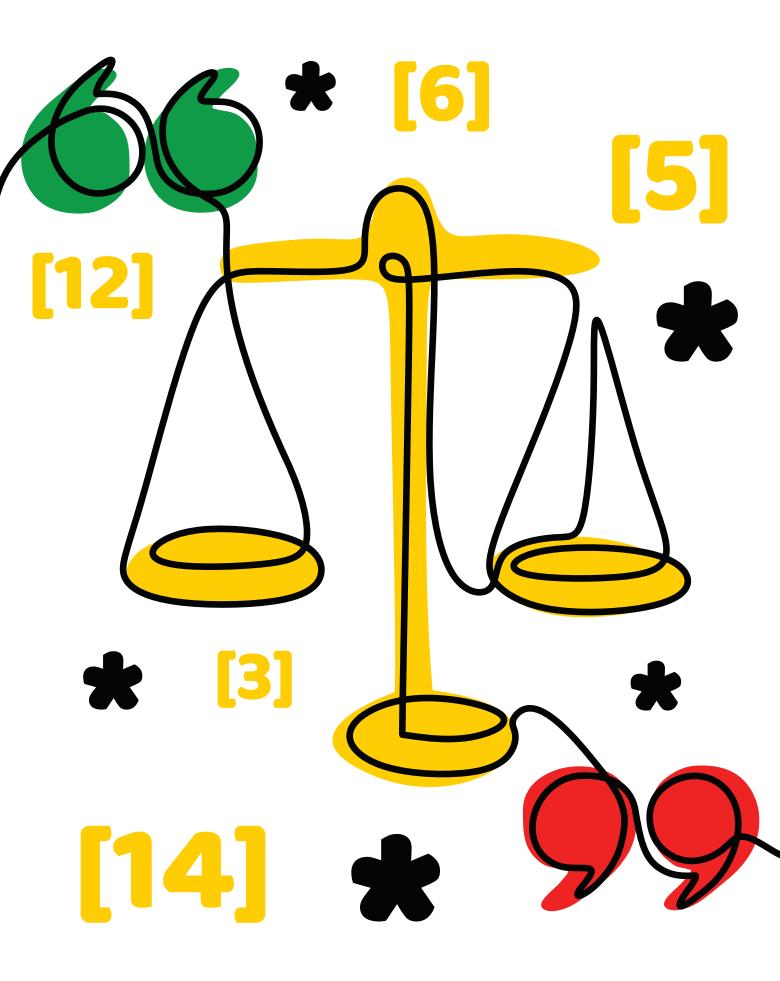
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Citational Justice and the Politics of Knowledge Production

Insights

- → As a discipline, it is vital that we consider how our knowledgeproduction practices and structures can embrace differences across geographies, cultures, and identities.
- Removing barriers to recognizing voices on the margins requires resources, creativity, and a reorientation away from individualism toward care.
- → We invite the HCI community to consider what a just citational practice means, and how we might work together toward it.

Citation is how we acknowledge our debt to those who came before; those who helped us find our way when the way was obscured because we deviated from the paths we were told to follow. — Sara Ahmed [1]

Ahmed reminds us that just citational practices recognize the knowledge contributions of less dominant, routinely overlooked voices. Pursuing citational justice, then, entails moving away from individualistic views of authorship and toward a shared, reciprocal understanding of how knowledge is produced. Drawing from our experiences working within HCI, we extend an invitation for a just citational practice—one that makes space for the diversity of human experience and recognizes that human-computer interactions must be responsive to cultural and geographic differences. We outline parts of our ongoing conversations as a collective [2] to motivate a care-ful citation practice across our field, interrogating how we can best honor one another's ideas and labor without alienation or appropriation.

WH<mark>om and what Do we cite?</mark>

Citational practices could be transformed to underscore their

relational nature, reconceptualizing them as acts of listening, as opposed to transactional or performative practices. In doing so, we must ask ourselves: Who decides who is worthy of being listened to? Who disrupts, challenges, and enhances our thinking? What genres, languages, media, and scholarship venues count as credible and creditable? Is citation itself an inherently colonial technology that represses diverse modes of knowing, doing, and being? [3] These questions connect us to concerns posed by postcolonial and feminist scholars. Edward Said, for example, argued that the colonial gaze produces biased and misguided knowledge that feeds back into existing power relations [4]. In the context of citational justice, this argument could serve as a starting point to unsettle taken-for-granted citational norms [5]. It can help us resist knowledge about colonial subjects produced by colonizing researchers and realize that no knowledge is produced in a vacuum, unaffected by perspectives "from below." Citing other dialogic practices like storytelling, and transformative feminist and postcolonial ideas such as reciprocity, responsiveness, and communion, then, is critical.

FROM WHAT REGION?

Our experiences researching in areas such as Brazil, Ecuador, India, Mexico, Pakistan, and Eastern and Southern Africa have helped us identify various structural barriers affecting transnational flows of knowledge. Local HCI venues tend to feel more affordable and inclusive than large global venues. They accommodate local languages and strengthen local ties, catering more effectively to local researchers than a single global venue might. However, hindered global participation in global venues deters knowledge from traversing transnational boundaries. For example, to get papers accepted, it is common to cite work that program committees may be familiar with. Such

implicit norms exacerbate citational inequities; those who have citational and social wealth are better positioned. Data from a CHI 2021 survey shows that approximately half the program committee consisted of scholars from either the U.S. or the U.K. [6]. Such imbalances in geographic representation further promote citation of research originating from these places, making it increasingly challenging for "outsiders" to be recognized as relevant. It follows that researchers from other regions who study or collaborate with already well-cited authors are also at an advantage when compared with those with different social and cultural capital. Dominance of Global North institutions is evident in CHI's publishing patterns over the years [7].

IN WHAT LANGUAGE?

The language of the ACM is English, which furthers the dominance of the Global North, especially the U.S. and the U.K. We restrict publications to English and have few infrastructures in place for translation. The HCI community is wont to overlook valuable knowledge sources in other languages. Orienting HCI community resources toward greater interaction across languages becomes important, and requires careful consideration. We might support translation of HCI texts in general, old and new. Given the knowledge we have accumulated through decades of HCI research alone, what or whom to translate may be a complex decision. How might we also consider translation in the production of new knowledge when we need to review work or understand citations across languages? Translation must also be multidirectional (i.e., not just privileging dominant languages) and the dominant language may not always be English (as in the case of Spanish in Latin America). Translation between local languages may also be

Citational practices could be transformed to underscore their relational nature, reconceptualizing them as acts of listening, as opposed to transactional or performative practices. just as important—for example, the predominance of Portuguese in Brazil erects communication barriers with a largely Spanish-speaking Latin America, despite shared struggles and visions.

Knowledge is inevitably lost in translation, and the best we can do is continuously approach it with care. Perhaps relying on skilled human translators in addition to machine translation will be essential. And even if translation does become commonplace, its impact will be tempered by the fact that sources not translated to English will remain less cited if Englishspeaking scholars remain most represented. For instance, databases of sources written purely in Chinese are used among many Chinese scholars, but scholars writing in English may be used to relying only on papers accessible via Google Scholar. Papers published in Chinese but not translated to English will thus remain inaccessible and unsearchable to those who do not speak Chinese. Another point requiring care is that different knowledge traditions engage different mediums to cite human interlocutors. For instance, Australian Aboriginal ways of knowing explicitly recognize the inseparability of knowledge and the land. This poses a problem of translation to post-Enlightenment knowledge traditions that limitedly attribute knowledge to text. We must consider consulting with different knowledge holders about systems for attribution, and citing them appropriately [8].

In the shorter term, we might also think about how we approach different forms of English itself. Not all English, even when free of errors, looks the same. It is spoken across many nations with regional particularities. Even within the U.S., African American Vernacular English, for example, follows its own structure and vocabulary. Knowledge and acceptance of different forms of English need to grow, and we might also orient community resources toward supporting non-native English speakers. For example, ACM or SIGs might offer resources to assist with editing shepherded papers.

WHO<mark>SE L</mark>ABOR DO W<mark>E RE</mark>COGNIZE?

To scru<mark>tinize</mark> citations is to examine authors<mark>hip.</mark> We tend to associate knowle<mark>dge w</mark>ith one or a few individuals, by name-dropping, glorifying particular lineages of knowledge, or using "et al." to summarize coauthors. How might we move away from valuing individual contributions alone to honoring collectives? Mechanisms for recognizing collaborative authorship are becoming commonplace. For example, in HCI, we sometimes add an asterisk next to author names to indicate equal authorship. In astronomy, it is common to have papers with many coauthors, while papers in physics feature thousands [9,10]. Going beyond reliance on author order, venues such as Citizen Science: Theory and Practice [11] observe specific contributions within teams. Motivating a paper, organizing collaborative work, discussing findings, and doing data collection could be explicitly recognized. How might we uncover and expand what is collective and reshape authorship practices accordingly?

Recognizing varying contributions might also bring us to reimagine who gets to be an author. Trans and disabled people, for example, tend to be seen as less relevant and less agential to speak about themselves [12,13]. Authorship is also not always preferred to begin with. We have experienced situations where authorship is meaningless to research participants and can be exploitative, such as when used for virtue signaling to suggest that all participants were invested in a project or publication. Going back to our discussion of dominant and less dominant perspectives: Is it possible to achieve collective rather than individualized knowledge creation, and equitable valuation of marginalized identities?

How authorship entangles with capitalist systems of evaluation within academia underlies these questions. It is easier to evaluate work with a "neat" numerical metric, such as a citation count or h-index. Yet collaboration is messy by nature and difficult to parse in capitalist metrics. Case in point, Eugene Garfield, one of the originators of citation analysis, defends it as an efficient and low-cost way of evaluating individuals' performance [14]. Given the emphasis on numerical metrics, it is ironic and unfortunate that authors' names remain central to identifying work, with inflexible systems causing harm for some authors. For example, researchers are currently working to reform publishing practices to allow for author name changes. This is of

particular relevance to transgender authors but to others as well, and has proven to be a significant challenge in academic publishing [15]. Tanenbaum et al. provide an overview of these challenges with a set of recommendations for improving the "identity infrastructures" of publishing.

HOW DIFFERENT ARE WE? AND HOW SIMILAR?

Citational injustice can be perpetuated as part of a well-intentioned effort to emphasize difference, leading us to neglect important commonalities. Divisions between research in the Global North and South are amplified when work in the North seemingly overlooks literature focused on the South because forms of marginalization in Southern contexts seem too different and particular to be relatable. For example, researchers working in the South are treated as experts in a particular national tradition, and their work is considered irrelevant to theory building. Also, the South is often understood through national formations, disregarding complex relations of power and knowledge within those countries. Scholars from the South frequently occupy what Michel-Rolph Trouillot calls "the savage slot," subject to either being overlooked or romanticized in relation to the Global North; simultaneously, these scholars' privileges and penalties within Southern contexts also shape their positionality [16].

Visions like Chandra Talpade Mohanty's around feminist solidarity can inform how HCI researchers might engage in mutual learning [17]. Drawing on Marisol de la Cadena's use of Marilyn Strathern's concept of partial connections [18,19], we could reimagine HCI as "neither singular nor plural, neither one nor many, a circuit of connections rather than joint parts." Can knowledge production and dissemination in HCI prioritize identifying such partial connections? Paper sessions in conferences could include discussions about (potentially unexpected) connections to other presentations. Or once an article is published, we could leave room for community members to suggest relationships with other work. This could have several positive effects, such as expanding and strengthening personal and professional networks, inviting new voices and contributions,

and collectively sharpening our scholarship.

CAN CITING DO HARM?

Citational practices can go beyond difference-making to produce further harm. Cited work can be misrepresented to support divergent ideas. For example, we have seen firsthand where work arguing for equal inclusion of autistic people is cited in contexts where the opposite happens. Cited work could also be misrepresented in a takedown of the work. According to Jeffrey Bardzell [20], when critiquing prior work, we should first summarize it so that everyone, including its authors, can be on the same page. Failing to do so disseminates misrepresentations of the preceding work, while succeeding requires researchers to critique arguments in their best form and elevates the quality of the critique.

To make space for discussing the harms of citations is not to convey "you did it wrong," but rather to engage in dialogue about the epistemological and methodological commitments involved. Fostering a critical awareness around citational practices is needed so that we can learn to take personal and political responsibility and recognize our role in eliminating citational injustices. As Tuck et al. ask, "Consider what you might want to change about your academic citation practices. Who do you choose to link and re-circulate in your work? Who gets erased? Who should you stop citing?" [21]. With this article we hope to draw attention to questions we should ask of HCI scholarship, to begin to work our way together toward some answers.

ENDNOTES

- 1. Ahmed, S. *Living a Feminist Life*. Duke Univ. Press, 2016.
- 2. Citational Justice in HCI; http:// citationaljustice.org
- Mott, C. and Cockayne, D. Citation matters: Mobilizing the politics of citation toward a practice of 'conscientious engagement.' *Gender*, *Place & Culture 24*, 7 (2017), 954–973.
- 4. Said, E.W. Orientalism. Vintage, 1979.
- Parvin, N. Doing justice to stories: On ethics and politics of digital storytelling. *Engaging Science, Technology, and Society* 4 (2018), 515–534.
- Diversity of the Program Committee for 2021; https://chi2021.acm.org/ information/4495.html
- Todi, K. CHI 2020 data and statistics; https://whatthehci.com/chi20/
- 8. Sentence, N.M. Indigenous referencing prototype Non-Indigenous authored

works. 2020; https://archivaldecolonist. com/2020/05/07/indigenous-referencingprototype-non-indigenous-authored-works/

- Chawla, D.S. Hyperauthorship: 9. Global projects spark surge in thousandauthor papers. Nature. Dec. 13, 2019; https://www.nature.com/articles/ d41586-019-03862-0
- 10. Smith, G.H. Trends in multiple authorship among papers in astronomy. Publications of the Astronomical Society of the Pacific 128, 970 (2016), 124502.
- 11. Theory and Citizen Science Practice. 2014; https://theoryandpractice. citizenscienceassociation.org/
- 12. Spiel, K., Keyes, O., and Barlas, P. Patching gender: Non-binary utopias in HCI. Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems. ACM, New York, 2019, 1–11; https://doi. org/10.1145/3290607.3310425
- 13. Ymous, A., Spiel, K., Keyes, O., Williams, R.M., Good, J., Hornecker, E., and Bennett, C.L. "I am just terrified of my future"- Epistemic violence in disability related technology research. Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems. ACM, New York, 2020, 1–16; https://doi. org/10.1145/3334480.33818287
- 14. Garfield, E. Is citation analysis a legitimate evaluation tool? Scientometrics 1, 4 (1979), 359-375.
- 15. Tanenbaum, T.J., Rettig, I., Schwartz, H.M., Watson, B.M., Goetz, T.G., Spiel, K., and Hill, M. A vision for a more trans-inclusive publishing world: High level principles for name changes in publishing. Committee on Publication Ethics. Jan. 13, 2021; https:// publicationethics.org/news/vision-moretrans-inclusive-publishing-world
- 16. Trouillot, M-R. Anthropology and the savage slot: The poetics and politics of otherness. In Global Transformations. Palgrave Macmillan, New York, 2003, 7-28.
- 17. Mohanty, C.T. Feminism Without Borders: Decolonizing Theory, Practicing Solidarity. Zubaan, 2005.
- 18. De la Cadena, M. Earth Beings: Ecologies of Practice Across Andean Worlds. Duke Univ. Press, 2015.
- 19. Strathern, M. Partial Connections. Rowman Altamira, 2005.
- 20. Bardzell, J. Critiquing scholarly positions. Interaction Culture. Feb. 14, 2016; https:// interactionculture.net/2016/02/24/ critiquing-scholarly-positions/
- 21. Tuck, E., Yang, K.W., and Gaztambide-Fernández, R. Critical Ethnic Studies. 2015; http://www. criticalethnicstudiesjournal.org/ citation-practices

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DOI: 10.1145/3556549 © 2022 ACM 1072-5520/22/09 \$15.00