journal of Geoethics and social Geosciences

Journal of Geoethics and Social Geosciences, 01, 02, 2026; doi:10.4401/jgsg-133

The letter-writing journal club as an interdisciplinary pedagogical practice in geosciences and geoethics

Timothy Daly[*,1,2]

[1] Bioethics Program, FLACSO Argentina, Buenos Aires, Argentina

[2] CNRS UMR 8011, Science Norms Democracy, Sorbonne Université, Paris, France

Article history: received September 1, 2026; accepted September 15, 2026; published September 22, 2026

Abstract

This article describes a letter-writing journal club undertaken with an interdisciplinary group of students and junior researchers on an international project on the ethics and governance of solar geoengineering research. It connected critical reading, interdisciplinary discussion, collaborative writing, and direct participation in peer-reviewed scholarly debate, leading to the publication of a letter and a follow-up reply and positioning junior researchers from Latin America as visible contributors to the peer-reviewed literature. This article aims to raise awareness of the pedagogical value of letter-writing initiatives in the geosciences and related fields.

Keywords: Geoethics, Geoscience, Journal Club, Letter to the editor, Geoengineering.

1. Introduction

Geoscientists face a number of challenges related to the unique nature of the scientific objects they work with, as well as historically-rooted and emerging ethical considerations (Peppoloni et al., 2015; Ohnesorge and Watkins, 2024). There is understandably a growing literature on education within the geosciences, including dedicated journals and initiatives. A recent theme in this literature is the formative value of initiatives taking place outside the formal classroom setting (Clary and Semken, 2026). Here, I will focus on one initiative undertaken in the semi-formal grey zone: journal clubs, a long-standing pedagogical activity used worldwide across different fields.

An online search reveals that journal clubs exist in geoscience education, for example, there has been a journal club at the University of Oslo's Department of Geosciences since 2022 (Department of Geosciences, University of Oslo, 2026). Groups interested in or currently running journal clubs may not be aware that they can lead to a valuable, concrete output in the form of a publication in an academic journal. Here, I build on literature on the pedagogical value of journal clubs, specifically those that lead to the writing of short-format commentaries in the form of letters to the editor (LTEs) in scientific journals (Gokani et al., 2019), and the diverse pedagogical and communicative functions that the LTE can have in diverse global contexts (Daly, 2024), including in the geosciences (Daly et al., 2026). For letter-writing journal clubs to be successful, certain conditions need to be in place: the journal in which the original article is published must publish commentary on work published there; the club's organisers must be familiar with the formal requirements of the format; and the group must have enough collective know-how to make a publishable contribution to the literature. I describe a letter-writing journal club initiative undertaken with junior researchers in Latin America and the Caribbean as part of a UK Advanced Research and Invention Agency (ARIA)-funded project on the ethics and governance of solar geoengineering research[1]. Importantly, the participants were junior researchers from both the physical sciences and social sciences: two predoctoral students from Argentina, three doctoral fellows from Argentina, one doctoral fellow from Spain, and two postdoctoral researchers from Brazil. This article aims to raise awareness of the pedagogical value of letter-writing journal clubs in the geosciences, including social science approaches within the geosciences and geoethics, and to encourage the writing and publishing of letters in these fields.

[1] Research project FPCW-PR01-P016 Ethics and Governance of Earth Cooling Research: From concepts to implementation (PI: Ignacio Mastroleo; Co-PI: Timothy Daly). See: https://aria.org.uk/opportunity-spaces/resilient-climate-and-ecosystems/exploring-climate-cooling/funded-projects (accessed 15 September 2026).

2. Journal club design and implementation

The letter-writing journal club was undertaken on 15 December 2025 and aimed to promote critical engagement with an article published in the same year in the journal *Environmental Science and Policy, Between inflated expectations and inherent distrust: How publics see the role of experts in governing climate intervention technologies* (Fritz et al., 2025). The writing club was undertaken in three phases: preparation and reading; the structured journal-club discussion; and collaborative drafting and revision of the ensuing letter. First, participants were informed over three weeks in advance of the need to read the original article which dealt with the theme of expertise. Then, a 90-minute structured journal club was undertaken in Spanish by two senior researchers from the ARIA-funded project, Maria Inés Carabajal and Timothy Daly, who first presented their summary of the paper, and then guided a structured discussion with the following three questions:

1) Which aspects of the article did you find most relevant to your own research topic?
2) How could expertise in what the authors call "social sciences" (which we define as anthropology, philosophy, and sociology) contribute to finding solutions to the problems raised?
3) What skills do you consider most important for your professional growth in this field?

Finally, the participants' answers to these questions were used by Carabajal and Daly to write up a first draft in a shared Google document, to which all participants were invited as co-authors. The draft then underwent several rounds of revisions over the next week by all participants as well as three ARIA project advisors and the project PI, all of whom qualified for co-authorship of the resulting article.

3. Outcomes and discussion

The writing club led to the publication of a follow-up LTE in the original journal by the participants and project members, *Rethinking expertise on climate cooling technologies* (Carabajal et al., 2026), and a reply published alongside it, *Reflecting on the politics and power dynamics of contested climate technologies* (Fritz et al., 2026). The letter-writing club succeeded in providing a forum for active critical reflection on a relevant theme across lines of discipline and seniority and positioned junior researchers as visible contributors to ongoing debates in the peer-reviewed literature. Thus, the initiative aligns with previous calls to advance geoethics through education, research, scientific publishing, and knowledge dissemination, which aim

to increase ethical awareness, critical reflection, and responsible decision-making in the geosciences and related fields (Peppoloni and Di Capua, 2012; Mogk and Bruckner, 2020). These aims are particularly important in the case of the LTE's topic of geoengineering in the Latin American and Caribbean region, which in recent years has seen controversial experiments take place against the backdrop of a governance vacuum reflecting the overall lack of visibility of the topic in regional science-policy debates (Carabajal et al., 2025).

4. Conclusions

That said, there are some limitations. First, senior researchers remained the lead authors (first and last, respectively) on the resulting LTE, with journal club participants appearing alphabetically before the project advisors and project PI. This means that in future LTE-clubs, students/junior researchers themselves will take the initiative as presenters and/or drafters of the next LTE to qualify for first authorship. Second, it can be difficult to justify this kind of time-consuming, semi-formal initiative alongside formal project deliverables, deadlines and milestones within a funded, time-sensitive project, suggesting the need to integrate these initiatives into project work plans and contractual arrangements. Third, no formal feedback was obtained from the participants, though informal comments suggest that the predoctoral researchers in particular were grateful for an extra publication on their CV.

In conclusion, letter-writing journal clubs occupy a productive space between formal instruction and informal scholarly exchange. By building on critical engagement with published literature to produce a tangible publication outcome, they can help junior researchers develop analytical and writing skills while enabling them to participate visibly in ongoing academic debates. Future initiatives should evaluate their educational effects more formally and explore their applicability across different geoscience and geoethics contexts.

Acknowledgments. This work was undertaken within Work Package 5 ("Capacity building") of the project FPCW-PR01-P016 Ethics and Governance of Earth Cooling Research: From concepts to implementation (PI: Ignacio Mastroleo; co-PI: Timothy Daly) funded by the UK Advanced Research and Invention Agency (ARIA) within the "Exploring Climate Cooling" programme, hosted by the Inter-American Institute for Global Change Research (IAI). Timothy Daly is also a member of an ongoing project on ethics and governance of solar radiation modification research in the Global South funded by The Degrees Socio-Political Fund.

Funding. This research was funded by FPCW-PR01-P016 Ethics and Governance of Earth Cooling Research: From concepts to implementation, funded by UK Advanced Research and Invention Agency (ARIA) within the "Exploring Climate Cooling" programme, hosted by the Inter-American Institute for Global Change research (IAI).

Competing interests. Timothy Daly declares honoraria as Correspondence editor at JME: Practical Bioethics within the BMJ Group. He declares no conflicts of interest relevant to the article's content.

References

Carabajal M.I., Santi M.F., Garat C.R., Lisanti G.F., Nasi J., et al., (2025). No Governance Is Governance: Mapping Solar Geoengineering Discussions in Latin America & the Caribbean. European Journal of Risk Regulation, 16(4), 1326-1342. https://doi.org/10.1017/err.2025.10025.

Carabajal M.I., Bavosa Castro A., Bezerra E., Calado Barbosa E., Fiore C., et al., (2026). Rethinking expertise on climate cooling technologies. Environmental Science & Policy, 182. https://doi.org/10.1016/j.envsci.2026.104446.

Clary R.M. and Semken S., (2026). Beyond the classroom: Leveraging opportunities to impact *all* learners. Journal of Geoscience Education, 74(3), 243-244. https://doi.org/10.1080/10899995.2026.2684207.

Daly T., (2024). The Letter to the Editor as a tool to promote critical thinking in Latin American bioethics pedagogy. Developing World Bioethics, 24(4), 267. https://doi.org/10.1111/dewb.12462.

Daly T., Teixeira da Silva J.A. and Nazarovets S., (2026). Letters provide a forum for public engagement with geoengineering. Reviews on Environmental Health, 41(2), 324-326. https://doi.org/10.1515/reveh-2025-0161.

Department of Geosciences, University of Oslo, (2026). Teaching & Learning Journal Club, https://www.mn.uio.no/geo/english/about/organisation/geodidactics/events/journal-club.html (accessed 15 September 2026).

Fritz L., Losi L., Baum C.M., Low S. and Sovacool B.K., (2025). Between inflated expectations and inherent distrust: How publics see the role of experts in governing climate intervention technologies. Environmental Science & Policy, 164. https://doi.org/10.1016/j.envsci.2025.104005.

Fritz L., Losi L., Baum C.M., Low S. and Sovacool B.K., (2026). Reflecting on the politics and power dynamics of contested climate technologies. Environmental Science & Policy, 182. https://doi.org/10.1016/j.envsci.2026.104448.

Gokani S.A., Sharma E., Sharma T., Moudhgalya S.V., Selvendran S.S., et al., (2019). Impact of a National Journal Club and Letter Writing Session on Improving Medical Students' Confidence with Critical Appraisal. Advances in Medical Education and Practice, 10, 1081-1087. https://doi.org/10.2147/AMEP.S235260.

Mogk D.W. and Bruckner M.Z., (2020). Geoethics training in the Earth and environmental sciences. Nature Reviews Earth & Environment, 1, 81-83. https://doi.org/10.1038/s43017-020-0024-3.

Ohnesorge M. and Watkins A., (2024). What is Philosophy of the Geosciences? Philosophy Compass, 19(2). https://doi.org/10.1111/phc3.12962.

Peppoloni S. and Di Capua G., (2012). Geoethics and geological culture: awareness, responsibility and challenges. Annals of Geophysics, 55(3), 335-341. https://doi.org/10.4401/ag-6099.

Peppoloni S., Bobrowsky P. and Di Capua G., (2015). Geoethics: A Challenge for Research Integrity in Geosciences. In Steneck N., Anderson M., Kleinert S. and Mayer T. (Eds.), Integrity in the Global Research Arena, World Scientific Publishing Co. Pte. Ltd., Singapore, pp. 287-294. https://doi.org/10.1142/9789814632393_0035.

*Corresponding author: **Timothy Daly**

e-mail: tdaly@flacso.org.ar