

This is an anonymized chat from the seminar by Doug MacAyeal on 23/10/2024. I have left names on people posting links. Many thanks to all contributors. Kind regards, Tavi Murray 28/10/2024

Douglas MacAyeal: Here is a link to the White Paper on Glacial Geoengineering:

Douglas MacAyeal: [https://climateengineering.uchicago.edu/wp-content/uploads/2024/05/Glacial-Climate-Intervention\\_A-Research-Vision.pdf](https://climateengineering.uchicago.edu/wp-content/uploads/2024/05/Glacial-Climate-Intervention_A-Research-Vision.pdf)

Participant A: "It's only research" is missing any kind of consideration regarding ethics. See, for example, genetics research. Responses: 👍 👍 👍 👍 👍 👍

Helen Fricker: Another useful link, from the SRM community > 10 years ago (they are ahead of us on this): [https://irgc.org/wp-content/uploads/2018/09/SRM\\_Opinion\\_Piece\\_web.pdf](https://irgc.org/wp-content/uploads/2018/09/SRM_Opinion_Piece_web.pdf) See Figure 5.

Participant A: "There is no indigenous population" is not the same as "there is no indigenous interest" in this engineering. Responses: ❤️ ❤️ ❤️ ❤️

Participant B: Any intervention in the climate system has "social justice issues". You can't claim that limiting an intervention to a small and distant corner of Antarctica means that social justice can be ignored. Responses: 👍 👍 👍 ❤️ 👍 👍 ❤️

Participant C: Those examples were really not great, Doug. Sex workers, drugs, cancer...all not good analogies. Responses: 👍 👍 👍

Participant D: Really sorry to say that termination shock is not "a great sci-fi topic". It is a very very serious thing (sorry I do not have much humor when it comes to geoengineering). Responses: ❤️ ❤️

Participant E: as Participant C said, not great analogies. One major difference is that the people who have the power and money are on the opposite side in this case. Responses: ❤️ 😞 👍

Participant C: Agree with Participant D. I am upset by this seminar. Responses: 👍

Participant A: Those are actual people, Doug. It is not acceptable for people living in the countries that cause these problems to use their suffering as examples to support doing more of the same. Responses: 👍 ❤️

Francisco Navarro: Why don't you leave the comments to the discussion?

Participant C: Some of these things I think are more easily written. And I have to leave before the discussion. Responses: 👍

Participant A: Cultural difference, I guess Francisco. Where I live and work, some of our communities use the chat pretty freely. We like to speak our minds. Responses: ❤️

Francisco Navarro: I simply cannot keep full attention to two simultaneous interesting discourses

Participant B: It's quite possible that not everyone will have an opportunity later to comment, ask questions etc. The chat feature allows everyone to be "heard". Responses: 👍 👍 ❤️ 👍 👍

Participant F: Geoingeneering Will detour the actual useful thing to do that is to invest on decarbonize efforts Responses: 👍

Participant F: the problem of deployment is that the scientists are not the ones to decide... but politicians...

Participant F: taking aside the moral and ethical issues... the wrong use of the research is the problem  
Responses: 👍

Participant C: We have a lot of Solar Radiation Management literature to draw from. Posted a link above. Responses: 👍

Participant D: I do think research on geoengineering should be fully transparent on who is funding their work, but also on the complete picture of these "ideas": what does it require in terms of governance, what does it mean in terms of ethics, what are the true impacts of the logistics, type of energy used, noise pollution, impact on biodiversity, who will pay for the repairs/removing the technology etc. For example this was totally missing from the Arctic Reflections press release that came out two weeks ago. It only focused on whether or not pumps on sea ice help to make it thicker... Responses: ❤️ ❤️ ❤️ ❤️

Participant A: And what **Dr Keith**<sup>1</sup> said he learned from that (in the NYT) is to communicate less.  
Responses: ❤️ 👍 ❤️ ❤️

Participant G: Does anyone know if the Antarctic Treaty system has yet had a view (or at least a discussion) on whether deployment would contravene the treaty? Responses: 👍 👍 👍

Participant A: Participant G - there is some discussion and there are some papers about this. My understanding is that the light touch the Treaty takes with regard to territorial claims makes many things possible. Responses: 👍

Participant C: At the Stanford workshop, we had lanyards which showed how skeptical we were

Andrew Bliss: E.g. "Antarctic glacier geoengineering understate the legal challenges presented by the Antarctic Treaty System (ATS)." <https://www.nature.com/articles/d41586-018-05877-5#:~:text=Antarctic%20geoengineering%20proposals%20would%20not,independent%20contributor%20o%20the%20ATS>. Responses: 👍

Participant C: However this was not recorded in the report

Christina Hulbe: [https://www.ecologylawquarterly.org/wp-content/uploads/2022/10/49.1\\_Corbett\\_Parson.pdf](https://www.ecologylawquarterly.org/wp-content/uploads/2022/10/49.1_Corbett_Parson.pdf)

Kerim Nisancioglu: Sharing this from AGU: <https://www.agu.org/ethicalframeworkprinciples> (Ethical Framework for Geoengineering) Responses: 👍 👍 👍

Participant A: Thank you Participant D. Important point. Responses: 👍 👍

Participant H: Nature is a social construction. Responses: 👍

Aurora Roth: Thank you Participant D! A relevant resource is the "Scientist engagement in the knowledge-action gap" which provides ideas for how we can be more engaged in pushing for decarbonization/climate action as scientists. If you are looking for ways to prioritize decarbonization then this is a good place to start <https://www.nature.com/articles/s41559-024-02535-0> Responses: 👍

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<sup>1</sup> Note that none of the participants commenting in this discussion were called Dr Keith

Participant I: The problem with simply making clear that decarbonisation is the first priority is that if any of the widely touted geoengineering schemes get as far as deployment at scale the costs will run to hundreds of billions of dollars. At that level they will inevitably be competing for funding with decarbonisation and adaptation efforts. Responses: 👍 👍 👍

Kerim Nisancioglu: Here is link to topical discussion with the example of ice intervention in Greenland - this was averted as a concept for Ilulissat Kangia (and other Greenland fjords) thanks to the engagement of the local community and critical scientists present:

<https://www.uarctic.org/news/2023/9/ilulissat-science-forum-2023/> Responses: 👍

Participant N: An aside on John McPhee - his 1974 book "Curve Of Binding Energy" was an early and powerful contribution to the nuclear test-ban debate, one that also linked in public views, technical arguments, the military-industrial complex, politics ... and pushed it in the right direction

Participant A: Who would be an "expert" in this case? Responses: 👍 🤔

Participant A: I do not agree that "academic freedom" means "I can do whatever I want." Responses: 👍 👍 👍

Participant A: Replying to "I do not agree that ..." This is a stance without ethics.

Participant J: Supported

Participant K: I agree we should all thank Doug for being brave enough to initiate this discussion on such a controversial topic, which has been valuable. Responses: 👍 👍

Participant J: Thanks for putting this together Tavi and Doug - very much appreciated. Responses: 👍

Participant L: No one said 'do whatever one wants', but some qualified scientists disagreed that climate change was real. Similarly, we'll always have some scientists who are willing to consider 'how to save the world' by direct action. It does have a certain appeal.

Participant M: Thank you Doug - and kudos to you and to the voices we heard.

Participant A: Replying to "I do not agree that ..." The ethics should lead, that is my point.

Participant N: Agreed, Tavi - bravo to Doug for offering this talk and being the catalyst for this important discussion

Participant O: thanks, Doug!

Participant P: Thank you!

Participant Q: Thank you, everyone!

Participant R: Thank you everyone!