A Brief Submission to the National Framework on Environmental Learning in Canada

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Our current research, educational, film and policy work suggests that a *National Framework on Environmental Learning in Ca*nada consider a participatory approach to teaching and learning that provides students and educators with opportunities to co-design and apply a full range of environmental knowledge, skills, and attitudes. [1] Our work extends the emerging Planetary Health Education Framework published in the *Lancet* to include elements of educational co-design across all themes in the model. In addition, our work points to innovative and visual ways to engage students and share the emerging scientific and community-based citizen science and knowledge towards better environmental policy, both locally and globally.

Our work demonstrates how experiential educational that recognizes new technological approaches to environmental education allows for participation in environmental education, policy, citizen science and citizen journalism. For instance, Dr. Mark Terry's geomedia and digital media production work (The Youth Climate Report) has encouraged and trained student and youth participants to take a meaningful role in environmental policy discussions in UN programs and COP meetings. We have also co-designed environmental and filmmaking workshops with students in Canada and beyond as a source of provision of films to the Youth Climate Report and for education, research, community-building, citizen science, and policy impact. Our work in this area is global, often including participation of youth from Indigenous communities: York University's Planetary Health Film Lab and Young Lives Research Lab (Ecuador, Belize, Colombia, Australia); the University of Copenhagen's Young Reporters for the Environment; Wilfrid Laurier University's Ghana Youth Videography Programme; and the United Nations' International Youth Conference.

The impacts of these environmental research and education programs are measurable. In all the countries where we conduct our youth-centred research and workshops, our certified graduates continue our program within their communities extending the skills they learned with their peers. Their films are showcased at the UN's annual climate summits each year and many have contributed directly to new environmental policy [2] [3] [4] [5] In addition, our *Partnership for Youth and Planetary Wellbeing* project in Canada, Chile, Costa Rica, Jamaica, and Belize is bringing forth important new data, films, artistic works and educational tools that can be shared widely for environmental education.

At the turn of this century, policymakers worldwide relied almost exclusively on peer-reviewed scientific reports as a source of the data for environmental policy. Film, as an alternative medium of data delivery, and documentary film in particular, emerged in 2009 with *The Antarctica Challenge: A Global Warning*, a

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[1] **Tilleczek, K.;** Terry, M.; MacDonald, D.; Orbinski, J.; Stinson, J. (2023) Towards youth-centred planetary health education. *Challenges*. Special Issue: Planetary Health. *14*, 3. https://doi.org/10.3390/challe14010003

[2] *Regional Conference of Youth (North America) Global Youth Statement*. New York: International Youth Conference (2023).

[3] *Global Youth Statement*. Sharm El-Sheikh, Egypt: YOUNGO, United Nations Framework Convention on Climate Change, COP27 (2022).

[4] *Global Youth Statement*. Glasgow: YOUNGO, United Nations Framework Convention on Climate Change, COP26 (2021).

[5] "Enhanced Action on Adaptation: Section II, Subsection 25," *Cancun Adaptation Framework*. Cancun: United Nations Framework Convention on Climate Change, COP16 (2011).

commercial documentary feature produced for the CBC in Canada and ZDF in Germany. The film reported on International Polar Year research at the South Pole and ushered in a new visual medium of scientific research for UN policymakers when presented by the Ontario government at the COP15 climate summit in Copenhagen that year ("Antarctica Challenge Spotlights Climate Change Impacts", *Ontario Newsroom*, December 18, 2009. Link: https://news.ontario.ca/en/bulletin/10428/antarctica-challenge-spotlights-climate-change-impacts).

The opportunity to present data and research in multimedia platforms to the United Nations dates back to 1972 when the United Nations Environment Programme (UNEP) was formed at the United Nations Conference on the Human Environment, more commonly known as the Stockholm Conference. It was here when a specific mandate was established for UNEP to provide "an education programme designed to create the awareness which individuals should have of environmental issues" and that "(t)his programme will use traditional and contemporary mass media of communication…" Without expressly identifying film, and written in the days before the common use of the Internet and other digital media, this mandate opened the doors for digital documentary film projects to participate in providing data related to environmental issues to UN policymakers (*Water Canada Magazine*, November 25, 2016. Link: https://www.watercanada.net/feature/cop22-action-day-for-water-issues).

The *Youth Climate Report* began in 2011 and continues into today as one such new media platform that presents a multilinear, interactive, database documentary film database on a Geographic Information System (GIS) map of the world. The United Nations Framework Convention on Climate Change's (UNFCCC) youth project now showcases more than 1,000 documentary short films produced by the global community of young people aged 18 to 35 on all seven continents. It serves as a data delivery system for UN policymakers and as a resource for scientists and for policymakers who learn alongside the citizen science of these young people and their communities.

The geomedia platform, known as a Geo-Doc[6], has been used by educators at Toronto's York University and Wilfrid Laurier University in Waterloo, Ontario as a research and teaching tool and by students as a project presentation platform. A two-year research study at York University found that of a sample size of 400 students, 62.5 per cent of all students who learned how to create and use a Geo-Doc plan to use it in the future academic and professional careers [7].

Along with learning new knowledge and skills in this emerging geomedia platform, students also learn filmmaking skills, valuable knowledge now that digital media is ubiquitous in the hands of young people's mobile devices. A third skill set learned in this approach to environmental education is research. In producing a documentary film, even if only three minutes in length, entails the academic discipline of scientific research when investigating climate impacts, phenomena, and possible solutions. The UNFCCC's Youth Climate Report program encourages young filmmakers to interview three types of subjects for their films: an expert, an elder, and someone whose life has been directly impacted by climate in their communities. These voices provide scientific, historical, and experiential testimony of the profiled environmental issue. Furthermore, a focus on Indigenous communities has helped to ensure that their crucial knowledge, experiences, and voices in climate and environmental science. Bringing together both youth-centred and Indigenous world views and experiences is central in understanding environmental and ecological degradation and possible ways forward.

In completing this program, students have their films reviewed by the United Nations. Those approved are added to the YCR database and presented at that year's UN climate summit, more commonly known as the COP conference. This particular and unique form of knowledge mobilization directly engages youth in a participatory process with UN environmental policymakers, a level of engagement for youth not available prior to 2016. As the proposed pedagogy, new technology, and UN partnership all originated in Canada, we encourage the

[6] Terry, Mark. *The Geo-Doc: Geomedia, Documentary Film, and Social Change*. London: Palgrave Macmillan, 2020.

[7] **Terry, Mark**, Tate, Erik, Shehwar, Shahreen. "Geomedia in the Classroom: A pedagogical Approach to GIS-Enhanced Ecocriticism", *The Emerging Role of Geomedia in the Environmental Humanities* (Terry and Hewson, eds). New York: Lexington Books, 2022.

Canadian government to adopt elements of these proven educational approaches into its planned National Framework on Environmental Learning. Further information and consultation are available upon request.

Thank you for the opportunity to submit this brief overview of our research, educational, film, and policy initiatives to the development team of the National Framework on Environmental Learning in Canada. We look forward to further collaboration and conversation.

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