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# Potential Impact of Environmental Activism: A Survey and a Scoping Review

Gregor Wolbring \* o and Simerta Gill

Community Rehabilitation and Disability Studies, Department of Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, AB T2N 4N1, Canada

\* Correspondence: gwolbrin@ucalgary.ca

Abstract: Environmental issues increasingly impact the well-being, the ability to have a good life, of people, especially members of marginalized groups. Dealing with environmental issues is a long-standing and increasing focus of activism. Youth are increasingly involved in environmental activism. One focus of environmental education is how to instill the role of being a change agent into students. Marginalized groups experience many problems in relation to environmental issues, and environmental activism impacts the lived experience of marginalized groups in diverse ways. A pre-study scoping review suggested a gap in academic inquiry around "the impact of environmental activism". The aim of our study was to decrease this gap and to better understand the perceived impact of environmental activism. We used two approaches to achieve this aim. In the first step, we used a survey to ask undergraduate students about their views on the impact of environmental activism. Given the results of the survey and that students need access to information to be able to fulfill their roles as critical thinkers and change agents, we then performed a scoping review of abstracts from Scopus, Web of Science, and the 70 databases accessible through EBSCO-HOST to ascertain what topics and which marginalized groups are engaged with in the academic inquiry of environmental activism. We found that participants felt that environmental activism has an impact on all the social groups and entities we gave them as choices, although there were differences in how positively they viewed the different groups and entities being affected. The participants also indicated that many of the well-being indicators were impacted by environmental activism, although around 30% felt that they did not have information they needed to form an opinion. Finally, our participants felt that different social groups have different ability expectations. Our scoping review found that many of the groups and indicators that our participants felt were impacted by environmental activism were not covered in the abstracts we analyzed. Our findings suggest many gaps and the need for actions and opportunities in relation to the topic of the "impact of environmental activism".

**Keywords:** good life; students; environmental governance; environmental action; environmental advocacy; environmental activism; impact; well-being



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# 1. Introduction

The environment has been a focus of activism for some time [1–5]. In September 2019, the UN Secretary-General called for a decade of action related to sustainable development from, for example, "youth, civil society, the media, the private sector, unions, academia and other stakeholders" [6], indicating that there are many different possible environmental activism actors.

At the same time, environmental activism goals and actions come with consequences, such as impacting well-being [7–9]. Many of the negative impacts of environmental activism can be linked to the cultural reality that one privileges certain abilities over others and that certain groups have the power to shape the discussions on which abilities are promoted or engaged with [10] (see, for example, discussions about the term "adaptation apartheid"

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coined by Desmond Tutu [11,12], green consumerism [10], and the single use of plastic straws not considering the needs of many disabled people [13,14]).

However, using the academic databases Scopus, Web of Science, and the 70 databases accessible through EBSCO-HOST, we found only four abstracts with the phrases "impact of" OR "consequence\* of" OR "implication of" OR "influence of" OR "evaluation of" OR "effect of" AND "environmental activism". Furthermore, we found for the phrases AND "environmentalism" only 29 abstracts, 17 for the phrases AND "environmental governance", 13 for the phrases AND "environmental action", 2 for the phrases AND "environmental stewardship\*", and 0 for the phrases AND "environmental advocacy", thus suggesting a gap in academic inquiry.

Given that many groups are increasing their environmental actions [6], that environmental activism impacts the well-being of people and societies [7–9], and that youth including students are an ever-growing group involved in environmental activism [12], our study aimed to decrease the aforementioned gap in the academic literature by ascertaining the views of students on the impact of environmental activism by asking three research questions: (1) What is the impact of environmental activism on the ability to have a good life for different social groups and entities? (2) What is the impact of environmental activism on indicators of the composite well-being measures of (a) the Better Life Index [15], (b) the Canadian Index of Wellbeing [16], (c) the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and (d) the Social Determinants of Health (SDH) [18,19]? (3) Are there differences in the ability expectations between groups?

Given our survey results and that students need information to be literate on the topics they ought to engage with in order to fulfill their roles as critical thinkers [20] and change agents [21–25], we then performed a scoping review using Scopus, Web of Science, and the 70 databases accessible through EBSCO-HOST with the aim to ascertain what academic data are available to students, instructors and others to engage with the impact of environmental activism. To fulfill this aim, we asked the following research questions: (1) Which terms, phrases, and measures linked to well-being are engaged with in the abstracts of academic studies engaging with "environmental activism" or "environmental advocacy" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental steward\*"? (2) To what extent and how are EDI frameworks and phrases and the social groups covered under EDI in the literature investigated? (3) Which technologies and which science and technology governance concepts and ethics fields are mentioned in the investigated abstracts?

#### 1.1. Environment and Well-Being

Well-being, or in other words the ability to have a good life, is extensively mentioned in relation to environmental topics. There are different views on what is a good life, and the perception of one's well-being is influenced by the perception of what constitutes a good life as individuals [8,9,26–30] and as societies [29–31]. Negative impacts on well-being are not only linked to environmental changes [32] but also linked to the expectation of pro-environmental behavior, i.e., negative effects are linked to not having enough income [8] and belonging to a marginalized group [9] which decreases the ability to engage in the ability expectation of pro-environmental behavior. Many indicators of well-being exist [26,33], and well-being is discussed in relation to environmental issues [32,34,35], ecosystem services [36], environmental instability [37], environmental well-being [38,39], environmental sustainability [40], economic policy actions related to well-being now and in the future [41–43], ("sufficientarianism") and the environment ("eco-sufficiency") [44], and collective well-being [45]. The SDG 3 is all about well-being [46]. It was argued that "we need to keep the economy growing to improve the well-being of citizens without affecting future well-being and environmental wealth" [47] (p. 39).

Social good is linked to environmental justice in general, and science and technology for environmental justice including in relation to marginalized groups [48,49]. It is argued that human actions negatively impact environmental systems, which increase risks to

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well-being, including for marginalized groups [50]. Ancient concepts such as "Pacha" and "suma qamaña" were developed to enable a better relationship between humans and the environment [51]. It is argued that environmental education should engage with a "good life" [52], that development often suggest differences regarding what abilities are needed for a good life [53–55], and that there is a danger of environmental policy-makers privileging the good life of some groups over others [56]. Various environmental indicator are part of the gold standard of life quality [57].

Technologies are extensively discussed as solutions for environmental problems [58–64], and these solutions are evaluated through the lens of science and technology governance concepts and various ethics fields [65–78], discussions that focus on enabling well-being or preventing decreases in well-being due to problematic advancements in science and technology.

#### 1.2. Environment and EDI

Individual concepts from which EDI phrases such as "equity, diversity, and inclusion" (EDI) and others are generated whereby these EDI phrases are used in EDI policy and action frameworks [79,80] are engaged with in the academic literature in conjunction with environmental issues. To mention only some examples around the concepts of equity and equality. Equity is seen as the right to a decent life [81,82] and as one indicator of sustainability and sustainable development [83–85]. Research on environmental equity and justice are linked [86–88]. Sustainable development discussions engage with intergenerational equity [89–92]. Environmentalism is seen as essential for equity, human rights, well-being [93], and civic participation [94]. Social and societal equity are linked to environmentalism [95,96], environmental stewardship [97–100] and environmental governance [100–111]. There are various measures for equity [110,112] that are employed to evaluate sustainability-related actions [113].

Equality is another concept linked to environmental activism [114], environmental governance [115,116], environmental stewardship [117] and environmentalism [118].

Some studies have highlighted the fact that the voices of marginalized groups are missing within the equity frameworks of environmental engagement [119,120], questioning "race-, class-, and gender-based hierarchies" [121] (p. 245), and that marginalized groups such as "Black, Indigenous and people of color (BIPOC), racially minoritized students" [122] (p. 975), and "women, disabled people, Black, Asian and Minority Ethnic (BAME) people and the lesbian, gay, bisexual, transgender, queer/questioning and others (LGBTQ+) community" [123] are not heard.

However, activities based on individual EDI concepts have limitations, so EDI phrases and policy and action frameworks containing more than one concept [79,80,124–128] are increasingly employed to better the situation for members of marginalized groups such as women, Indigenous Peoples, visible minorities, racialized minorities, disabled people, people with disabilities, and LGBTQ2S+ [80,129] (for disability terms, see [130] (p. 38)). EDI, as a phrase, is also used in conjunction with environmental issues [131–136].

## 1.3. Environmental Activism and Students

Regarding views on- and perception of environmental activism, stewardship, action and governance, many studies have engaged with the theme of students as activist [137], and environmental education focuses on how to teach students to gain knowledge [131] and to instill [138–141] and predict [142–144] environmentally responsible behavior, including on campus [145–147]. Studies have reported on educating students on action-related strategies [138,148–152], instilling action in students [139,140,153–181], and predicting action [175,182,183]. It has been argued that teachers do not feel equipped to teach environmental action strategies [149], and teaching methods have been questioned [184]. Factors affecting the environmental activism of university students [142,185–193] and youth civil activism [194] have been investigated. Studies have also investigated how to instill a sense of responsibility for environmental stewardship in students [195–201]. One study noted that "there is a knowledge gap between the perceived environmental impact and actual

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impact on high-impact and low-impact pro-environmental behaviors" [177] (p. 1). It has been argued that it is important in education, including citizenship education, to determine the factors that increase the willingness of students to engage with environmental issues [202,203]. One argued that "university students are regarded as future decision-makers in society and have a high likelihood of becoming opinion-shapers in terms of the environment" [204] (p. 958). One study evaluated an activity that allowed students to "(1) describe an environmental issue from a perspective different from their own, (2) analyze the influences of sociodemographic factors such as race, gender, class, and ability (among others) on the experiences of environmental harms and benefits among diverse individuals, and (3) assess the value of empathizing with the experiences of others to develop solutions to problems of environmental injustice" [205] (p. 221). Implementing environmental activism at school is seen as socially risky [206] and could be part of a curriculum [207]. One study outlined six key initiatives that were identified to be useful in engaging students in the topic of environmental governance [208].

#### 2. Method

## 2.1. Study Design and Research Questions

We performed our study in two stages. In stage 1, we performed a percentage measurement of the descriptive quantitative data to analyze the answers to three research questions of students from one first-year undergraduate disability studies class of one Canadian university: (1) What is the impact of environmental activism on the ability to have a good life for different social groups and entities? (2) What is the impact of environmental activism on the indicators of the composite well-being measures of (a) the Better Life Index [15], (b) the Canadian Index of Wellbeing [16], (c) the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17] and (d) the Social Determinants of Health (SDH) [18,19]? (3) Are there differences in the ability expectations between groups?

We chose an online survey using the Qualtrics platform offered through the university due to the class being held virtually. The survey received ethics approval from the University of Calgary's Conjoined Health Ethics Board (REB 17-0785). Participants were assured that we could not identify them or their IP addresses and that they could stop the survey at any time; additionally, no question was set as having to be answered.

Given the results of our survey, we decided to add a scoping review as a second stage to ascertain the research that has been conducted on the impact of environmental activism and to answer the following research questions: (1) Which terms, phrases, and measures linked to well-being are engaged with in the abstracts of academic studies engaging with "environmental activism" or "environmental advocacy" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental steward\*"? (2) To what extent and how are EDI frameworks and phrases and the social groups covered under EDI in the literature investigated? (3) Which technologies and which science and technology governance concepts and ethics fields are mentioned in the investigated abstracts? We asked research question 1 because environmental activism impacts well-being. We asked research question 2 because EDI comprises policy initiatives set up to decrease the workplace problems of marginalized groups, including environment-focused workplaces and the research, education and service areas of universities [80,209]. We asked research question 3 because technological advancements in conjunction with environmental issues are often discussed within ethics fields and science and technology governance because science and technology governance concepts and ethics discussions are used to discuss the social impacts of science and technology. Therefore ethics fields and science and technology governance concept can contribute to discussions on the impact of environmental issues and environmental activism.

For the scoping review, we performed quantitative hit count searches of academic abstracts. For research question 1, we searched for 35 terms and phrases linked to the term "social", all of which could be linked to well-being, i.e., the ability to have a good life. We also looked at the presence of the following conventions, declarations and goal-

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setting documents that could be used to flag well-being problems and enabling well-being: "Convention on the rights of Persons with Disabilities", "Convention on the rights of the child", "Convention on the Elimination of All Forms of Discrimination against Women", "Declaration on the Rights of Indigenous Peoples", "Universal Declaration of Human Rights", "UN Framework Convention on Climate Change", "transforming our world: the 2030 agenda for sustainable development", "UN flagship report on disability and development", and "International Convention on the Elimination of All Forms of Racial Discrimination" [210]. We also investigated the presence of phrases related to 21 composite well-being measures [79] and all indicators used by the four composite measures (the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17] and the Social Determinants of Health (SDH) [18,19]). For research question 2, we investigated the presence of EDI terms present in the academic literature [79] and terms linked to groups covered within EDI discussions [211]. For research question 3, we investigated which science and technology governance terms, and ethics fields were mentioned and how often they were.

## 2.2. Survey: Question Development

The questions were part of 9 different surveys the students received as part of their course assignments. Of the many different questions, we present the results of a subset of these questions, namely, those linked to environmental activism in which one focus was the impact of environmental activism on different social groups. We looked at the impact of environmental activism on the ability to have a good life because disability studies students are concerned with the ability of disabled people to have a good life; accordingly, to describe the impact of environmental activism in the language and indicators of a good life allowed the students to immediately connect environmental activism to the lived experience of disabled people and other social groups, including themselves, which consequently facilitated the participants' critical evaluation of environmental activism whether or not they were involved in it. The ability expectation question was chosen because disability studies students often think about ability expectations that impact social groups, especially disabled people. The second focus of the questions was the impact of environmental activism on the indicators of the ability to have a good life according to the following composite measures: the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based rehabilitation (CBR) Matrix [17] and the Social Determinants of Health (SDH) [18,19]. The Canadian Index of Wellbeing [16] was chosen because it linked the studied topic to discussions of the well-being of individuals within the society that the participants live in (Canada). The World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17] was chosen because the social aspect of community-based rehabilitation are one focus of the program that the participants were in. The Social Determinants of Health (SDH) [18,19] was chosen because it is the most visible composite measure of well-being. The Better Life Index [15] was added because it is generated by the OECD and therefore has available data for different countries.

## 2.3. Data Source and Collection

## Participants for survey:

Between September and December 2021, students from one junior level disability studies class were asked survey questions linked to our research questions as part of their course assignment using the University-based Qualtrics online survey platform. We chose students from a disability studies program as participants because (a) students are seen as change agents and many students and youth in general are engaged in environmental activism [12], (b) the academic field of disability studies focuses on the social barriers disabled people face in their lives, (c) environmental issues pose many social problems for disabled people, and (d) disabled people are impacted by environmental activism [12–14,212–214].

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## Scoping review:

From 19 October to 19 December 2022, the abstracts of articles accessible through SCOPUS, Web of Science, and the 70 academic databases of EBSCO-HOST were searched with no time restrictions. Regarding inclusion criteria, scholarly peer-reviewed journals were included in the EBSCO-HOST search and reviews and peer-reviewed articles, conference papers, and editorials in SCOPUS and the Web of Science searchers were set to all document types.

#### 2.4. Data Analysis

## Survey:

We collected data through an online survey using the Qualtrics platform. We sent online survey links to the students within their course-delivery platform after ethics approval was received. The survey data were collected between September 2021 and December 2021. Quantitative descriptive percentage data were extracted and analyzed using Qualtrics's intrinsic frequency distribution analysis.

## Scoping Review:

To answer the research questions, we conducted a descriptive quantitative analysis [215–218] of abstracts obtained through strategies 1–6 (Table 1). For the abstracts that were searched on the desktop (search strategies 1 and 4), we first downloaded the abstracts as part of citations into Endnote software, which we used to delete all duplicate abstracts and non-English documents, thus ending up with a foundation of abstracts for each of the strategies. The resulting abstracts for strategies 1 and 4 were exported from Endnote as one RTF file each and converted into one PDF each. The manifest coding was performed within each PDF using the advance search function of the Adobe Acrobat software. When the advance search for a given term or phrase generated more than 100 hits, we noted the hit count but did not look at how many abstracts these hits represented. If the search terms or phrases generated less than 100 hits, we looked at every hit and recorded the actual number of abstracts these hits represented. The abstracts obtained through strategies 2, 3, 5 and 6 were searched for the terms and phrases in the abstracts in the online search engines of EBSCO-HOST, Scopus, and Web of Science. For these searches, we recorded the hit numbers for each of the search engines and made one result number out of three hit numbers. If there were more than 1000 hits, we simply added an X into the results. In general, the numbers for the online searches reflect hits and not the number of abstracts, and the hits also included duplicates among the three databases. As such, the hits represent a maximum and the actual number of abstracts very likely would be lower than that hit counts for most terms or phrases.

Table 1. Search Strategies.

Strategy	Sources Used	Search Terms	Downloaded after Duplicates Removed	Online Search
Strategy 1	Scopes/EBSCO/ Web of science	"Environmental activism"	1805-dup = 884	
Strategy 2	Scopes/EBSCO/ Web of science	Environmentalism		14,880
Strategy 3	Scopes/EBSCO/ Web of science	"Environmental governance"		16,669
Strategy 4	Scopes/EBSCO/ Web of science	"Environmental advocacy"	603-dup = $336$	
Strategy 5	Scopes/EBSCO/ Web of science	"Environmental steward*"		5613
Strategy 6	Scopes/EBSCO/ Web of science	"Environmental governance"		16,669

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#### 3. Results

In Section 3.1, we present the survey results of students from one first-year course of one disability studies degree covering the following questions: How do you see environmental activism impacting ... the ability to have a good life in the moment (Table 2) and in the future? (Table 3) (Section 3.1.1) What is the ability expectation sentiment between social groups? (Table 4) (Section 3.1.2). In Section 3.1.3, we report on the perceived impact of environmental activism on the indicators used by four composite well-being measures (the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and the Social Determinants of Health (SDH) [18,19]). In Table 5, we present a summary of the sentiment towards the indicators (how many students agreed with what answer choice for how many indicators). In Tables A1–A4 in Appendix A, we present the results for each of the indicators.

In Section 3.2, we report the summary of our scoping review results (Tables A5–A13 with the data are shown in Appendix B) on the presence of various terms in abstracts focusing on "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward", namely, the hit counts of (a) some social indicators from the existing literature (used in Tables 3 and 9 in [210]) regarding well-being terms and international conventions, declarations, and goal-setting documents (Table A5); (b) the terms used for 21 well-being measures (Table A6); (c) indicators of the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and the Social Determinants of Health (SDH) [18,19] (Tables A7–A10; (d) the frequency of EDI phrases and frameworks (Table A11); (e) the frequency of EDI-related groups, isms, and phobias (many terms linked to disabled people taken from [130] (p. 38) (Table A12); and (f) some established and emerging technologies we noted as being mentioned in various environmental discussions, science and technology governance concepts, and ethics fields in the existing literature (Table A13).

## 3.1. Survey Results

In short, the results of our survey on the perceived impact of environmentalism on the ability of a good life were as follows (Tables 2 and 3): the number of "10 = only positive impact" responses was the highest for "Nature", "Animals", and "Indigenous Peoples" in Canada for "in the moment" and even more for "in the future". In general, the number of "10 = only positive impact" responses increased from "in the moment" to "in the future". Beyond "Nature", "Animals", and "Indigenous people" in Canada, the percentage of "5 = positive and negative impact" responses was higher than the percentage of "10 = only positive impact" responses. Less than 10% (and less than 5% for many groups) of participants chose the "0 = no impact" response, and less than 5% chose the "1 = only negative impact" response for "in the moment". For "in the future", the percentages of the "0" and "1" responses were lower than those for "in the moment". Tables 2 and 3 indicate that environmental activism was felt to have an impact on many groups and entities. Table 4 suggests that participants felt that people from different groups favor different abilities. Regarding the perceived impact of environmental activism on well-being (Table 5 and Tables A1–A4), the sentiment that environmental activism has an impact (no option for positive/negative) was higher for most indicators than the sentiment that is has no impact, with around 12-50% saying that they could not say/had no opinion. "Aboriginal People", an indicator of one of the composite well-being measures, were seen by the highest percentage of students to be impacted by environmental activism.

## 3.1.1. Impact of Environmental Activism on the Ability to Have a Good Life

A small number of students sometimes did not answer a certain row of questions, leading to differences in the total number of participants between questions.

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The survey results in Table 2 show that the perceived impact of environmentalism on the ability of a good life for the "10 = only positive impact" response was the highest for "Nature", "Animals", and "Indigenous Peoples" in Canada for "in the moment".

Table 3 shows the results regarding "in the future". The percentage of "5 = positive and negative impact" responses was higher than that of the "10 = only positive impact" responses for many choices. Less than 10% (and less than 5% for many groups) of participants chose the "0 = no impact" response and less than 5% chose the "1 = only negative impact" response for "in the moment".

**Table 2.** QID2—How do you see environmental activism impacting ... ability to have a good life in the moment? 0 = no impact; 1 = purely negative impact; 2-4 = more negative impact; 5 = equal negative and positive impact; 6-9 = more positive impact; 10 = only positive impact.

#	Question	0	1	2	3	4	5	6	7	8	9	10	Total Par- ticipants
22	Nature	1.27%	0.00%	0.00%	0.00%	3.80%	12.66%	6.33%	6.33%	5.06%	11.39%	53.16%	79
21	Animals	1.27%	0.00%	0.00%	0.00%	5.06%	13.92%	3.80%	10.13%	12.66%	7.59%	45.57%	79
15	Indigenous people in Canada	1.25%	1.25%	0.00%	2.50%	0.00%	28.75%	11.25%	10.00%	6.25%	13.75%	25.00%	80
17	Youth	6.33%	2.53%	0.00%	1.27%	2.53%	25.32%	11.39%	12.66%	5.06%	17.72%	15.19%	79
1	You	6.25%	1.25%	0.00%	1.25%	2.50%	22.50%	11.25%	16.25%	13.75%	10.00%	15.00%	80
10	Countries of the South	2.50%	0.00%	2.50%	5.00%	6.25%	27.50%	16.25%	10.00%	7.50%	7.50%	15.00%	80
14	Immigrants to other countries	3.75%	2.50%	0.00%	7.50%	5.00%	26.25%	13.75%	13.75%	7.50%	7.50%	12.50%	80
12	Nonbinary people	7.50%	2.50%	0.00%	1.25%	2.50%	38.75%	8.75%	10.00%	8.75%	7.50%	12.50%	80
16	People of ethnic background not a majority in Canada	2.50%	1.25%	0.00%	2.50%	3.75%	33.75%	10.00%	11.25%	11.25%	11.25%	12.50%	80
11	Disabled people	5.00%	0.00%	5.00%	1.25%	2.50%	32.50%	11.25%	13.75%	8.75%	7.50%	12.50%	80
2	Post-secondary students	2.50%	1.25%	0.00%	2.50%	1.25%	25.00%	15.00%	17.50%	15.00%	7.50%	12.50%	80
20	Family caregiver	7.59%	2.53%	0.00%	1.27%	3.80%	32.91%	15.19%	10.13%	10.13%	5.06%	11.39%	79
18	The Elderly	2.50%	1.25%	0.00%	2.50%	3.75%	35.00%	10.00%	13.75%	7.50%	12.50%	11.25%	80
19	Single parents	7.69%	2.56%	0.00%	1.28%	5.13%	34.62%	11.54%	12.82%	7.69%	6.41%	10.26%	78
13	Immigrants to Canada	3.75%	2.50%	2.50%	0.00%	3.75%	32.50%	12.50%	15.00%	10.00%	7.50%	10.00%	80
9	Countries of the North	2.50%	1.25%	1.25%	1.25%	2.50%	26.25%	21.25%	20.00%	8.75%	5.00%	10.00%	80
3	Non-University apprenticeship students	1.25%	1.25%	1.25%	2.50%	1.25%	33.75%	17.50%	16.25%	7.50%	7.50%	10.00%	80
6	Women	5.00%	1.25%	0.00%	1.25%	1.25%	27.50%	17.50%	20.00%	8.75%	7.50%	10.00%	80
7	People with low income	2.50%	1.25%	3.75%	7.50%	6.25%	31.25%	10.00%	11.25%	8.75%	8.75%	8.75%	80
5	Men	5.00%	1.25%	0.00%	1.25%	3.75%	30.00%	15.00%	20.00%	7.50%	7.50%	8.75%	80
4	Blue collar workers	0.00%	1.25%	2.50%	5.00%	10.00%	31.25%	20.00%	12.50%	3.75%	6.25%	7.50%	80
8	People with high income	2.50%	2.50%	0.00%	6.25%	8.75%	30.00%	11.25%	8.75%	13.75%	8.75%	7.50%	80

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**Table 3.** QID3—How do you see environmental activism impacting . . . ability to have a good life in the future? 0 = no impact; 1 = purely negative impact; 2-4 = more negative impact; 5 = equal negative and positive impact; 6-9 = more positive impact; 10 = only positive impact.

#	Question	0	1	2	3	4	5	6	7	8	9	10	Total Par- ticipants
22	Nature	1.27%	0.00%	0.00%	0.00%	1.27%	11.39%	3.80%	7.59%	8.86%	12.66%	53.16%	79
21	Animals	1.27%	0.00%	0.00%	0.00%	1.27%	13.92%	2.53%	11.39%	7.59%	10.13%	51.90%	79
15	Indigenous people in Canada	1.28%	1.28%	0.00%	1.28%	1.28%	16.67%	14.10%	10.26%	8.97%	12.82%	32.05%	78
1	You	2.53%	0.00%	0.00%	0.00%	0.00%	12.66%	13.92%	11.39%	16.46%	15.19%	27.85%	79
17	Youth	3.80%	0.00%	0.00%	2.53%	1.27%	17.72%	7.59%	11.39%	11.39%	17.72%	26.58%	79
2	Post-secondary students	2.50%	0.00%	0.00%	0.00%	1.25%	12.50%	16.25%	13.75%	13.75%	16.25%	23.75%	80
10	Countries of the South	1.25%	2.50%	1.25%	2.50%	2.50%	20.00%	11.25%	10.00%	12.50%	13.75%	22.50%	80
16	People of ethnic background not a majority in Canada	1.28%	1.28%	1.28%	0.00%	1.28%	24.36%	12.82%	10.26%	10.26%	15.38%	21.79%	78
13	Immigrants to Canada	3.85%	0.00%	1.28%	1.28%	2.56%	19.23%	11.54%	12.82%	11.54%	15.38%	20.51%	78
14	Immigrants to other countries	3.80%	1.27%	0.00%	0.00%	2.53%	22.78%	10.13%	12.66%	11.39%	15.19%	20.25%	79
12	Nonbinary people	5.06%	0.00%	0.00%	1.27%	2.53%	24.05%	12.66%	3.80%	13.92%	16.46%	20.25%	79
11	Disabled people	3.75%	0.00%	1.25%	3.75%	1.25%	20.00%	13.75%	8.75%	10.00%	17.50%	20.00%	80
5	Men	2.50%	1.25%	1.25%	1.25%	0.00%	26.25%	10.00%	11.25%	11.25%	15.00%	20.00%	80
18	The Elderly	3.80%	1.27%	1.27%	2.53%	0.00%	24.05%	10.13%	7.59%	10.13%	20.25%	18.99%	79
19	Single parents	6.33%	1.27%	0.00%	1.27%	1.27%	22.78%	8.86%	10.13%	12.66%	16.46%	18.99%	79
6	Women	2.50%	1.25%	0.00%	1.25%	2.50%	22.50%	10.00%	12.50%	15.00%	13.75%	18.75%	80
9	Countries of the North	1.25%	1.25%	0.00%	2.50%	5.00%	15.00%	13.75%	12.50%	12.50%	17.50%	18.75%	80
3	Non-University apprenticeship students	1.25%	0.00%	0.00%	1.25%	1.25%	15.00%	15.00%	18.75%	13.75%	15.00%	18.75%	80
20	Family caregiver	6.41%	1.28%	1.28%	0.00%	1.28%	23.08%	10.26%	8.97%	14.10%	15.38%	17.95%	78
8	People with high income	2.50%	0.00%	1.25%	0.00%	3.75%	20.00%	17.50%	8.75%	11.25%	20.00%	15.00%	80
4	Blue collar workers	0.00%	0.00%	1.25%	3.75%	2.50%	22.50%	16.25%	13.75%	11.25%	15.00%	13.75%	80
7	People with low income	2.50%	1.25%	1.25%	1.25%	8.75%	20.00%	11.25%	15.00%	10.00%	16.25%	12.50%	80

## 3.1.2. Ability Expectations of Different Social Groups

Table 4 suggests that participants felt that people from different groups favor different abilities.

## 3.1.3. Indicators of Measures

In this section, we show how many students (%) agreed to a given sentiment for the indicators of the composite measures (Table 5). The answers to the individual indicators of the composite measures are shown in Tables A1–A4 in Appendix A.

Table 5 suggests that more students saw indicators being impacted by environmental activism than not, but many students also felt that they could not voice an opinion. Tables A1–A4 in Appendix A show the actual numbers of the sentiments that students felt toward each of the indicators.

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**Table 4.** Q11—Do you think that members of different social groups such as ... would generate different abilities they cherish and generate different top 10 lists?

#	Question	Yes		No		Do Not Know		Total
1	Young versus old	93.55%	87	1.08%	1	5.38%	5	93
2	Disabled versus non-disabled people	91.40%	85	6.45%	6	2.15%	2	93
3	Different social class	88.17%	82	8.60%	8	3.23%	3	93
4	Different education background	86.02%	80	6.45%	6	7.53%	7	93
5	Different generation status as an immigrant (1st generation vs. 2nd generation)	83.87%	78	4.30%	4	11.83%	11	93
6	Urban versus rural	81.52%	75	6.52%	6	11.96%	11	92
7	Male versus Female	80.65%	75	10.75%	10	8.60%	8	93
8	Different ethnic groups	78.49%	73	9.68%	9	11.83%	11	93
9	Different cultural background	77.17%	71	7.61%	7	15.22%	14	92
10	Different Religious groups	75.27%	70	8.60%	8	16.13%	15	93
11	Different citizenship status	73.12%	68	9.68%	9	17.20%	16	93

**Table 5.** Summary of the sentiment towards the indicators of the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and the Social Determinants of Health (SDH) [18,19].

Sentiment towards Indicators % Agreeing	Impact Yes (Number of Indicators)	Impact No (Number of Indicators)	No Opinion (Number of Indicators)
	Community-based Rehabilitati	on Matrix (34 indicators)	
0%	0	0	0
0.1–15%	0	2	3
15.1–25%	2	11	16
25.1–35%	5	14	13
35.1–45%	15	6	1
45.1–55%	10	1	1
55.1–65%	1	0	0
65.1–75%	2	0	0
75.1–100%	0	0	0
	Canadian Index of Well-B	eing (35 indicators)	
0%	0	0	0
0.1–15%	0	9	6
15.1–25%	0	12	18
25.1–35%	3	12	11
35.1–45%	11	2	0
45.1–55%	7	0	0

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Table 5. Cont.

Sentiment towards Indicators % Agreeing	Impact Yes (Number of Indicators)	Impact No (Number of Indicators)	No Opinion (Number of Indicators)
55.1–65%	9	0	0
65.1–75%	3	0	0
75.1–100%	2	0	0
	OECD Better Life Inde	x (12 indicators)	
0%	0	0	0
0.1–15%	0	3	0
15.1–25%	0	5	3
25.1–35%	2	4	8
35.1–45%	4	0	1
45.1–55%	4	0	0
55.1–65%	1	0	0
65.1–75%	1	0	0
75.1–100%	0	0	0
	Social Determinants of He	ealth (30 indicators)	
0%	0	0	0
0.1–15%	0	2	0
15.1–25%	4	5	7
25.1–35%	9	17	21
35.1–45%	12	5	2
45.1–55%	1	1	0
55.1-65%	2	0	0
65.1–75%	2	0	0
75.1–100%	0	0	0

## 3.2. Scoping Review

The results of the scoping review are as follows (Tables A5–A13 with the data are shown in Appendix B). The abstracts containing environmental activism or environmental advocacy rarely mentioned well-being as a general term; "environmentalism" or "environmental governance" or "environmental action\*" or "environmental steward\*" had more hits, although the number of available abstracts containing these terms was also higher (Table A5). Regarding specific forms of well-being, the number of hits was between 5 and 0. For most of the international documents, "Convention on the rights of Persons with Disabilities", "Convention on the rights of the child", "Convention on the Elimination of All Forms of Discrimination against Women", "Declaration on the Rights of Indigenous Peoples", "International Convention on the Elimination of All Forms of Racial Discrimination", "Universal Declaration of Human Rights", "UN Framework Convention on Climate Change", "transforming our world: the 2030 agenda for sustainable development", and "UN flagship report on disability and development" had 0 hits—even the "UN Framework Convention on Climate Change", for which the highest hit was 16 within the 16,669 articles containing "environmental governance" (Table A5). Of the 21 composite well-being measures, most had 0 hits, and none had more than 5 hits (Table A6). Many of the individual indicators of the Community-based Rehabilitation Matrix, Canadian Index of Wellbeing, OECD Better Life Index, and Social Determinants of Health composite well-being measures (Tables A7-A10) had few hits, with the exceptions of general terms such as "education" Sustainability **2023**, 15, 2962 12 of 46

or "social". Regarding EDI phrases and frameworks, none generated any hits (Table A11). Many of the EDI group-related terms had few or no hits. Disability-related terms mostly had 0 zero hits, but other EDI term groups also often had few or no hits (Table A12). Regarding technologies, the generic term "technolog\*"had some hits, but most specific technologies had no hits. Most scientific and technology governance concepts and ethics fields had no hits. Environmental ethics had some hits although still very few (Table A13).

## 4. Discussion

Our survey results indicate that participants felt that all their potential choices were impacted by environmental activism (Tables 2 and 3), albeit at different levels of positivity. Regarding the perceived impact of environmental activism for the indicators of the composite measures (the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and the Social Determinants of Health (SDH) [18,19]), the sentiment that environmental activism has an impact was higher for most indicators than the sentiment that it has no impact. However, for many indicators, more than 33% of participants felt that they could not say/had no opinion. Our participants furthermore indicated that different groups of people have different ability desires (Table 4), which must have an impact on discussions about environmental activism.

Regarding the scoping review, the studied abstracts rarely mentioned well-being as a general term and even more rarely mentioned specific forms of well-being. For most international documents, there were 0–16 hits (Table A5). Of the 21 composite well-being measures, most had 0 hits and none had more than 5 hits (Table A6). Most of the individual indicators of the four composite well-being measures (Tables A7–A10), with the exceptions of general terms such as "education" or "social", had no or few hits. EDI phrases and EDI policy frameworks generated no hits (Table A11), and EDI group-related terms had few or no hits (Table A12). Regarding technologies, the generic term had some hits, but specific technologies had few or no hits. Most scientific and technology governance concepts had no hits, and as to ethics fields only environmental ethics had some but still very few hits (Table A13).

In the remainder of this section, we discuss our findings including future opportunities in terms of (a) the issue of well-being, (b) EDI, and (c) students and environmental activism. We then outline some implications and limitations of our study.

## 4.1. The Issue of Well-Being

Well-being, or the ability to have a good life, has been extensively mentioned in relation to environmental topics [34–45], and the SDG 3 is all about well-being [46].

That well-being is a major theme in the literature fits with our survey findings in that participants flagged many of the indicators of well-being as being impacted by environmental activism and that they saw all possibly selected social groups and entities as being impacted by environmental activism in terms of their ability to have a good life. Given that participants indicated that environmental activism impacts well-being, academic data on the impact of environmental activism on well-being should be available to students and others to allow them to become literate on the impact of environmental activism. Our pre-study scoping review already suggested that few academic abstracts contained "impact of environmental activism" and related phrases. However, to furthermore ascertain the availability of academic data to students and others, our scoping review considered various terms covering various aspects of well-being and terms related to engaging with the environment such as "environmental activism" and "environmental governance" without using phrases that contained "impact" and similar words searched for in our pre-review.

The scoping review showed that the abstracts containing the terms "environmental action", "environmental advocacy" OR "environmental activism" rarely mentioned the generic term "well-being" (e.g., of the 884 abstracts containing the term "environmental activism", only 9 mentioned well-being) and even less mentioned specific types of well-

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being such as personal well-being and social well-being. More abstracts were obtained with well-being in conjunction with the other phrases however the numbers of abstracts as sources for the other phrases were also higher. For example, "environmental governance" generated 342 hits with "well-being", but these 342 abstracts were obtained from a higher starting number of abstracts (16,669), which suggests that "well-being" is not a major topic compared with other environmental terms.

Our findings indicate an academic inquiry disconnect between well-being and environmental action, advocacy, activism and the other terms ("environmental governance", "environmental steward\*" and "environmentalism") and that students and others have access to few relevant available academic empirical data and theoretical thoughts. This disconnect was even more evident when we searched for the presence of 21 composite wellbeing measures, as we only found 5 abstracts focusing on environmental action, advocacy and activism. Finally, many non-generic indicator terms of the four composite well-being measures—the Better Life Index [15], the Canadian Index of Wellbeing [16], the World Health Organization-initiated Community-based Rehabilitation (CBR) Matrix [17], and the Social Determinants of Health (SDH) [18,19]—generated few hits, indicating that these indicators were not discussed in relation to environmental activism and other related terms. This disconnect is problematic given that of the 99 indicators of the four composite wellbeing measures we gave our participants, only 18 were flagged by most of our participants as not being impacted versus being impacted by environmental activism. We found that 35–45% of the students indicated for 42 indicators that these indicators were impacted by environmental activism and 45-55% indicated the same for 21 of the indicators.

Our findings suggest that academic and policy inquiries into the impact of environmental activism might be useful and that the well-being indicators and our survey questions regarding well-being are useful for students to relate and engage with the impact of environmental activism. However, students need available academic studies and data to further inform themselves on the topic. Various answers by our participants related to individual indicators also suggested that more studies on the perception and the real impact of environmental activism would be useful. In the specific context of our participants, who were in a disability studies program and engage with the social situation of disabled people, it is problematic that most of the phrases containing the term "social" such as "social norms", "social relationships", "social engagement", "social exclusion", "social integration", and "social status" generated few hits in our scoping review. Given that students felt that many of the indicators containing 'social' in the phrase were impacted by environmental activism, students would therefore benefit from theoretical and empirical data on these terms related to environmental activism.

Various environmental indicators are part of the gold standard of life quality [57]; however, this is not enough to ascertain the impact of environmental activism. Although many technologies are part of the discussions about environmental issues and environmental activism, our scoping review suggested that many ethics areas and discussions using science and technology governance concepts do not engage with the impact of environmental activism. Accordingly, important data for students and others are missing.

## Opportunities to Engage with Well-Being

Our participants felt that environmental activism impacts many indicators of well-being and well-being in general (Tables 5 and A1–A4). At the same time, the scoping review showed little engagement with well-being as a general term and even less engagement with specific well-being terms (Table A5). Studies could be conducted using our questions in communities focused on the topic of well-being to engage with the impact of environmental activism on the ability to have a good life. Scholars could also use other composite well-being measures such as "The Disability and Wellbeing Monitoring Framework" [219].

Our scoping review showed that the nine international convention, declarations, and goal-setting documents we selected were rarely or not at all used as tools to analyze environmental activism and the other environmental areas we looked at. In the nine documents,

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one can identify many indicators for action and indicators of well-being that need to be fixed and could impact or be impacted by "environmental activism", "environmentalism", "environmental governance", "environmental action\*", "environmental advocacy" and "environmental steward\*". Additionally, this list of indicators could be used to query the impact of environmental activism and the other areas covered by our environment-related search terms. Indeed, this approach can be used for many social issues [210] and would be very useful for many students that are in degrees linked to the topics covered by the nine documents.

Various academic studies have considered environmental health inequities [220–240] and environmental health equity [232,241–246]. Our scoping review only generated nine hits for health equity in abstracts covering "environmental activism", two hits for "environmental governance", and zero hits for "environmental advocacy", "environmentalism", "environmental action\*" and "environmental steward\*". Given the health equity definitions that explicitly acknowledge social, political, cultural, and other parameters and do not see health equity only within the framework of access to health services [247–250], as well as the recognition that marginalized groups encounter many barriers to health equity [251], our findings suggest many openings for the health equity community to engage with the impacts of "environmental activism", "environmental action\*" and "environmental advocacy" in relation to "environmentalism", "environmental governance", "environmental action\*" and "environmental steward\*". Given our survey and scoping review results, data on health equity and environmental activism are needed.

Many concepts, including the ability to have a good life with ones set of abilities, the ability to be at ease with one's set of abilities, and the idea that having certain abilities leads to the privilege of access to other abilities [252], have been considered in ability studies. Ability-related concepts are also used in relation to environmental topics [10]. Ability-based concepts could be used to link well-being indicators and environmental activism's impacts on the ability to have a good life. The list of choices we gave our participants (Tables 2 and 3) all suggested different lived experiences and different abilities in the experience of a good life. Indeed, our participants indicated that groups with different lived experiences have different ability expectations (Table 4). These differences in ability expectations can lead to environment-related ability-based conflicts (see, for example the concept of adaptation apartheid coined by Desmond Tutu [11] and expanded on through an ability studies lens in [12]). There are many problems for marginalized groups who do not fit ability norms and therefore do not do things and experience things in ways that are the norm, including in relation to environmental/disaster issues, environmental education, and environmental activism (for many sources, see [12,131,212]).

Political ecology covers the impact of environmental action [253]. The results of our study suggest that political ecology could make use of our data, survey, and scoping review, to engage with the perception of the impact of environmental activism in a different way and increase the amount of knowledge on the perceived and real impacts of environmental activism.

# 4.2. The Issue of EDI

Many individual terms used to make up EDI phrases are covered within the environmental context, e.g., "equity" [84–87,98–100,102–110,121,254–257] and "equality" [114–118]. Some studies have engaged with the voices of marginalized groups within equity frameworks [119,120,122,123]. Equity is the right to a decent life [81,82], and it is one indicator of sustainability and sustainable development [83–85].

However, activities driven by any individual EDI concept have limitations. Therefore, EDI phrases containing three or more EDI concepts [79,80,124–128] are increasingly used to shape and trigger actions to improve the workplace realities for marginalized groups such as women, Indigenous Peoples, visible minorities, racialized minorities, people with disabilities, and LGBTQ2S+ [80,129] (for disability terms, see [130] (p. 38)).

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The Canadian Equity, Diversity, and Inclusion Dimensions Pilot program webpage states that the program "is intended to publicly recognize post-secondary institutions seeking to increase equity, diversity, and inclusion (EDI) in their environments and across the research ecosystem. The program objective is to foster transformational change within the research community at Canadian post-secondary institutions by identifying and eliminating obstacles and inequities. This will support equitable access to funding opportunities, increase equitable and inclusive participation, and embed EDI-related considerations in research design and practices" [258].

As a phrase, EDI is also used in conjunction with environmental issues [131–136].

However, our study showed that EDI policy frameworks and EDI phrases have not been covered in relation to environmental activism and the other environmental phrases we used in our scoping review, which is a problem.

The article "Equity, diversity, and inclusion in Canada's National Adaptation Strategy: Why it matters and what it means" asks "How can the diversity of identities and experiences of Canadians be reflected in a national strategy on climate adaptation and why does social inclusion matter? Lessons from other countries can help show the way" [134]. Given the answers of our participants, our survey questions could be used as one tool to answer such questions. One article covering youth environmentalism [12] outlined the argument Desmond Tutu put forward to denounce what he called "adaptation apartheid" [11], and in [12], adaptation apartheid is described as a form of ability injustice driven by ability privilege [12] and ability inequity [12]. Adaptation apartheid could be seen as one consequence of ability-based conflicts due to different abilities being seen as essential between social groups, as indicated by our participants (Table 4). Adaptation apartheid impacts many marginalized groups [32], including climate refugees [32] and adds to the numbers of people of various marginalized groups such as climate refugees. As such, one must consider how environmental activism impacts different groups and which ability expectations are privileged (and by whom) in the environmental activism discourse.

Any given group can be impacted by environmental activism in various ways. Persons with disabilities, including children and youth with disabilities, could be impacted by potential arguments (preventing impairment) for environmental actions, changing the societal parameters caused or/and demanded by environmental activism and technologies used as a solution for environmental issues such as geoengineering and human enhancement envisioned to enable humans to adapt to climate change [12].

Furthermore, our survey results indicated that participants felt that disabled people are impacted by environmental activism. However, our scoping review suggested that students and others do not have sufficient empirical and theoretical data available to engage with the impact of environmental activism on disabled people. These findings fit those of a study that found that youth environmental activism is rarely researched in relation to its impacts on disabled people [12]. This gap is problematic because it hinders the ability of students and others to become literate on the topic of environmental activism and disabled people. This lack of data especially problematic given the already noted problems regarding engagement with environmental issues including emergency and disaster management and environmental education in relation to disabled people [131,212–214,259].

## Opportunities to Engage with EDI

It was argued that "EDI is more than EDI of an individual's background in the workplace. In academic settings, it is also about EDI of curricula material, EDI of research agendas, and EDI of knowledge" [212] (p. 38). As such, investigating this disconnect could be a research opportunity. Is this disconnect caused by EDI policy frameworks and phrases being used in policy work to increase the diversity of people in the workplace but not the diversity of research questions? Two studies, one covering undergraduate disabled students as researchers [209] and the other covering youth environmental activism and disabled people [12], suggested that there is an EDI research question problem, at least in

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relation to disabled people. Our findings could be helpful to inform action items covered under the premise of changing the research ecosystem.

Our survey and scoping review data could be used to engage with the diverse ways disabled people and other marginalized groups can be impacted by environmental activism. The survey and results of our scoping review could be used to further the EDI reality around environmental activism, not just for disabled people but also for other marginalized groups. Every EDI group has different lived experiences due to their abilities. EDI research should be concerned with the extent these differences in abilities-based lived experiences shape discussions about the ability expectations linked to environmental activism. Table 4 shows that our participants believe that social groups of different background exhibit different ability expectations—a cultural reality that makes it difficult to form an ability-related consensus on environmental actions [12,260].

A 2022 report assessing "the level of equity, diversity and inclusion (EDI) in the ecosystem of climate organizations in Canada" made recommendations for philanthropy's role in advancing EDI [135]. The authors found that climate organizations are not "led by equity deserving groups" such as "youth, Indigenous Peoples, racialized communities, immigrants, low-income individuals, disabled people, seniors, and northern and coastal communities" and that only half of the studied organizations are engaged with equity-deserving groups [135] (p. 4). Given the answers of our students on the impact of environmental activism on social groups, that is a problem. The report recommended that researchers develop tools and parameters for evaluating and improving EDI to protect the most vulnerable populations [135].

Having members of organizations answer our survey questions might trigger some thoughts regarding the systemic problems EDI groups face in relation to environmental activism and environmental issues, as well as reveal literacy and knowledge gaps on the topic. The survey could be used to fill the EDI literacy gaps highlighted in the 2022 report "Equity, diversity & inclusion (EDI) in Canadian Energy Decision-Making" [136].

The survey could be used to generate data in the organizations covered by the report that, in turn, could be used for EDI policy decisions that increase the belonging of EDI-deserving groups and engage with the concepts "equity", "diversity" and "inclusion", as defined in [136] (p. 8). Many different groups are envisioned to be involved in environmental actions [6], so it is a constant equity challenge to recognize and redistribute power among different environment-related actors [136].

Tools for the evaluation of the impact of "environmental activism", "environmental advocacy", "environmentalism", "environmental governance", "environmental action\*" and "environmental steward\*" might be useful. The term "bias" rarely showed up in our scoping review. The BIAS FREE ("Building an Integrative Analytic System for Recognizing and Eliminating inEquities") framework [261,262] lists 20 questions covering three types of problems: maintaining an existing hierarchy, failing to examine differences, and using double standards [262]. The BIAS FREE framework could be used to make visible the impacts of "environmental activism", "environmentalism", "environmental governance", "environmental action\*", "environmental advocacy" and "environmental steward\*".

## 4.3. Students and Environmental Activism

It has been argued that "university students are regarded as future decision-makers in society and have a high likelihood of becoming opinion-shapers in terms of the environment" [204] (p. 958). Studies have reported on students being educated in environment-related action strategies [138,148–152], instilling action in students [139,140,153–181] and predicting action [175,182,183]. It has been argued that "determining the factors that influence young adults' engagement in environmental action is critical to further developing their active and important participation in environmental issues" [202] (p. 612). Our participants felt that there is an impact of environmental activism on social groups and entities such as animals and nature. Thinking about the impact of environmental activism might trigger some actions by students such as preventing negative impacts of environmental

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activism on marginalized groups, actions that would fit the increasing EDI focus on higher education and environmental NGO and government policies. One study described an activity that could be used to increase the ability of students to understand that people are differently impacted by environmental issues and environmental actions, an understanding seen as essential for tackling environmental injustice [205]. Our survey might help this outcome regarding both environmental issues and the impact of environmental activism. Given how our participants answered the questions related to social groups, our survey could enable students to think about the impact of environmental activism on various social groups and could trigger the desire to know more about the experiences of different social groups. Our participants indicated, in one of the highest percentages, that environmental activism impacts Indigenous Peoples. However, our scoping review showed few hits related to Indigenous Peoples. Our participants felt that other marginalized groups including disabled people are impacted by environmental activism. However, our scoping review revealed many gaps regarding EDI and marginalized groups including disabled people. This gap in available data about environmental activism and disabled people has hindered the ability of, for example, our participants undertaking disability studies degrees to become literate on the topic of environmental activism and disabled people and to become effective change agents for and with disabled people, which is one goal of students in disability studies degrees.

Various ability-related concepts [10,252] could be used to trigger discussions among students on the impact of environmental activism on well-being, i.e., the ability of groups and individuals to have a good life. The list of social groups we gave our participants all have different lived experiences, different abilities to experience a good life, and different desired abilities. Indeed, our participants indicated that groups with different lived experiences have different ability expectations (Table 4). These differences in ability expectations can lead to environment-related ability-based conflicts (see the discussion of adaptation apartheid [11] in [12]). There are, for example, many problems for marginalized groups, including disabled people, who do not fit ability norms and therefore do not do things in ways that are the norm including in relation to environmental/disaster issues, environmental education, and environmental activism [12,131,212–214,263,264]).

# **Education Opportunities**

One could give our questions or modified questions to students of degrees and programs that cover or do not cover marginalized groups and see whether the answers are different. It would also be interesting to see how students from STEM research, environmental education, and political science programs answer the questions compared with our participants.

The potential to have a positive social impact resonates with STEM students [265,266]. Our participants were recruited from a disability studies program where the teaching focuses on the social barriers disabled people face; many of these students are part of the program because they want to make a positive difference in the lives of disabled people. Students are generally seen as change agents [12], and it has been argued that curricula should facilitate that role [267]. Our survey can be used in many degrees to entice students to think and engage with the impact of environmental activism and the ability-based conflicts between groups involved in environmental activism and impacted by the goals decided on as environmental activism actions.

Our survey questions could be used to trigger thinking about the impact of environmental activism and the ability-based differences in expectations between actors involved in environmental activism, which is important given the many different backgrounds and motivations of actors involved in environmental activism.

Our questions could be used in conflict studies degrees covering the aspect of conflicts linked to environmental topics.

Considering and discussing the impact of environmental activism might entice especially students from EDI covered and other marginalized groups background and students

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interested in EDI and students engaged with marginalized groups might be enticed to involve themselves in environmental activism.

Our survey questions could be used to help students engage with the impact of not only environmental activism in general but also the impact of environmental issues on disabled people and other groups, as well as to enrich the teaching on the relationship between EDI and the environment.

The motivation of environmental education "should be a reverence for life balancing the needs of the "good life" with the alternatives" [52] (p. 10). Given how many of the well-being indicators were seen by more students as being impacted by environmental activism than not suggests that this list of indicators could be used in environmental education to aid discussion of the perceived and real impact of environmental activism on the ability to have a good life in general and of marginalized groups in particular.

Our study used a survey without comment boxes as the surveys were part of course assignments, with the specific goal of showing the studied class what they answered in percentages. As such, one can conduct other studies that use surveys with comment boxes or semi-structured interviews to further investigate what participants think about the impact of environmental activism on different social groups.

Our scoping review indicated many knowledge gaps regarding the relationship between environmental activism and similar activities and facets of well-being (the ability to have a good life). Closing this knowledge gap is needed for students to be able to become literate on the topic of the impact of environmental activism, especially in relation to marginalized groups. Students, such as undergraduate students in general and of marginalized groups background in particular, could become researchers to fill this knowledge gap. Having undergraduate students engage with the impact of environmental activism fits with the goal of improving EDI in higher education which includes the revamping of the research eco-system [258], as well as linking change agent and researcher student identities.

#### 4.4. Implications

The findings of our study showed that students felt that environmental activism impacts social groups in diverse ways and that different groups have different ability expectations. We suggest that these ability expectation differences influence environmental activism and other environmental issues. Furthermore, our students felt that many indicators of well-being are impacted by environmental activism; together with the differences in abilities and ability expectations, this suggests that environmental activism impacts social groups differently. Our scoping review triggered by the answers to our survey showed what data are available to students and others in relation to various aspects of well-being (e.g., the 'social', EDI, science and technology governance, and ethics fields) in relation to environmental activism and similar phrases. We found many gaps in this coverage, suggesting areas in which students and others could further engage in the study of the impact of environmental activism and topics covered by the other phrases.

Regarding academic implications, our findings suggest the need for more studies on the perceptions of different groups of people on the impact of environmental activism and a thorough analysis of how differences in ability expectations influence environmental activism and its impacts. Studies on the relationship between science and technology governance concepts, technology-focused ethics fields, and the impact of environment activism are needed given that technologies are one focus of environmental discussions. More studies concerned with the impact of environmental activism on the ability to have a good life are also warranted, especially studies with an EDI focus.

Our findings suggest that more studies on the perception and real impact of environmental activism and the conflict that such activism might cause between social groups are needed. Using the lens of ability-based conflict between social groups might entice students to engage with the perceived or real impact of environmental activism.

Regarding policy implications, ability-based conflicts and EDI should be used as lenses to evaluate the impact of environmental activism. Science and technology governance

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discussions should be linked to the impacts of environmental activism on technology policy discussions and the impact of technologies on environmental activism discussions. The gaps revealed by our study should be closed to generate the data needed to inform policy decision making about environmental issues and environmental activism.

Regarding implications for education, our findings suggest that our survey questions could be a useful tool to engage students in the topics of the impact of environmental activism and environmental activism in general. Our survey questions could be of particular use for courses that cover marginalized groups. At the same time, our scoping review suggests that more studies are needed to fill the identified gaps so that students can have access to empirical data, reviews, and theoretical pieces needed to increase their literacy about the impact of environmental activism, therefore enabling students to fulfill their expected roles as change agents.

## 4.5. Limitations

Given that we used an online survey instrument, we could not ask for clarifications of answers. Additionally, because our survey questions comprised parts of various surveys given to students as self-reflection tools during their course, no gender or other demographic details were collected. Regarding the scoping review, we only used SCOPUS, Web of Science, and the 70 databases accessible through EBSCO-HOST, and we only searched English language abstracts. We also did only perform hit count searches. Our study design was exploratory, and our intent was not to generate generalizable data. However, our results allow for some conclusions within the parameters of the study and suggest many follow-up study ideas.

#### 5. Conclusions and Recommendations

The main findings of our survey are that participants felt that many different social groups are impacted by environmental activism and that environmental activism impacts many indicators of well-being; however, many students also felt that they did not know/had no opinion on the impact of environmental activism on various well-being indicators. The main findings of our scoping review are that many of the non-generic well-being indicators are not or are rarely covered in the abstracts of the academic literature and that EDI, science and technology governance concepts, and ethics fields are also rarely or not engaged with.

We found in our pre- study review studies reporting on students being educated on environment-related action strategies [138,148–152], instilling action in students [139,140,153–181], and predicting action [175,182,183]. However, a pre-review of academic literature to inform our study showed that none of the abstracts in Scopus, Web of Sciences, and the 70 databases accessible through EBSCO-HOST containing the phrases "impact of" OR "consequence\* of" OR "implication of" OR "influence of" OR "evaluation of" OR "effect of" in conjunction with "environmental activism" or environmental governance" or "environmental action" or "environmental stewardship" or "environmental advocacy" suggested an engagement with the perception of students or others on the impact of environmental activism.

Our study aimed to decrease this gap in academic inquiry. Our study contributes information on student perceptions on the impact of environmental activism to the environmental activism literature. We suggest that this angle is important due to the many different actors and views present in environmental activism discussions and the presence of ability-expectation-related conflicts evident in environmental activism discussions. Our study also contributes the angle of ability-expectation-based conflicts and an analysis of which terms depicting facets of well-being, i.e., the ability to have a good life, are engaged with in the academic literature covering "environmental activism", "environmentalism", "environmental governance", "environmental action\*", "environmental advocacy" and "environmental steward\*" concepts.

Some recommendations based on our findings are as follows.

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- (a) To broaden the academic inquiry around the impact of environmental activism.
- (b) To discuss the impact of environmental activism to entice students to engage with environmental topics. Talking about the impact of environmental activism should be useful given the many different actors engaged in environmental activism and actions.
- (c) To use the lens of ability-based conflict between social groups to entice students to engage with the perceived or real impact of environmental activism. Surveys and discussions with that lens should be useful in courses that cover marginalized groups. This lens should also be useful for courses in environmental education.
- (d) To think about ability-based judgments, norms, and conflicts influencing environmental activism and caused by environmental activism in designing and developing policies and actions.
- (e) To use our survey to enrich risk narratives around the impact of environmental activism and other environmental discussions such as emergency and disaster management, preparedness, and prevention.
- (f) To use our survey with practitioners and policy-makers to engage with the impact of environmental activism and other environmental topics such as emergency and disaster management, planning and prevention.
- (g) To use our survey in science and technology governance discussions and EDI discussions in relation to environmental issues and the impact of environmental activism and beyond.

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Informed Consent Statement: Participants gave informed consent by answering the survey questions.

Data Availability Statement: Not applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Appendix A

For Tables A1–A4: for all indicators, students were also asked about their views on other topics. The total number of participants is based on the highest number of answers (yes/no/no opinion) for a given row. As we only present answers on the topic of environmental activism for each row, the answers tallied up under environmental activism sometimes do not add up to the total maximum. A small number of students sometimes did not answer the question regarding environmental activism for a given indicator. Students also sometimes did not answer a given indicator for any of the topics. That is why the total per indicator vary (Tables A1–A4 in the Appendix A).

Regarding the perceived impact of environmental activism, Table A1 shows that the sentiment that environmental activism has an impact (no option for positive/negative) was higher for most indicators than the "no impact" sentiment, with around 12–50% saying that they could not say/had no opinion.

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**Table A1.** Q7—Do you think there is an impact of  $\dots$  on the Community-based Rehabilitation Matrix indicators?

#	Question	Environmental Activism YES		nvironmental Activism NO		vironmental Activism No Opinion		Total
1	Political participation	69.01%	49	14.08%	10	12.68%	9	71
2	Livelihood	67.57%	50	10.81%	8	17.57%	13	74
3	Life-long learning	55.41%	41	21.62%	16	18.92%	14	74
4	Empowerment	54.29%	38	21.43%	15	22.86%	16	70
5	Education	53.95%	41	26.32%	20	13.16%	10	76
6	Secondary education	52.63%	40	21.05%	16	21.05%	16	76
7	Health promotion	50.65%	39	24.68%	19	23.38%	18	77
9	Social	50.00%	36	22.22%	16	23.61%	17	72
10	Recreation	50.00%	36	29.17%	21	16.67%	12	72
15	Social protection	48.00%	36	21.33%	16	26.67%	20	75
18	Culture	46.48%	33	23.94%	17	25.35%	18	71
12	Sport	45.83%	33	29.17%	21	20.83%	15	72
11	Leisure	45.71%	32	30.00%	21	21.43%	15	70
16	Health prevention	44.74%	34	23.68%	18	27.63%	21	76
17	Health	43.90%	36	20.73%	17	35.37%	29	82
8	Social mobilization	43.06%	31	25.00%	18	27.78%	20	72
13	Self-help groups	43.06%	31	34.72%	25	18.06%	13	72
14	Disabled people's organizations	42.86%	30	30.00%	21	25.71%	18	70
22	Rehabilitation	42.11%	32	34.21%	26	19.74%	15	76
21	Primary education	42.11%	32	34.21%	26	21.05%	16	76
19	Childhood education	41.89%	31	31.08%	23	20.27%	15	74
30	Social relationship	41.67%	30	25.00%	18	26.39%	19	72
25	Skills development	41.10%	30	46.58%	34	9.59%	7	73
20	Arts	39.44%	28	23.94%	17	29.58%	21	71
27	Wage employment	37.84%	28	33.78%	25	22.97%	17	74
28	Communication	37.50%	27	31.94%	23	23.61%	17	72
31	Access to justice	37.50%	27	33.33%	24	26.39%	19	72
33	Self-Employment	36.00%	27	38.67%	29	20.00%	15	75
32	Healthcare/Health care	32.05%	25	38.46%	30	28.21%	22	78
24	Family	30.56%	22	37.50%	27	26.39%	19	72
23	Non-formal	27.03%	20	16.22%	12	50.00%	37	74
29	Financial services	27.03%	20	41.89%	31	25.68%	19	74
26	Personal Assistance	24.66%	18	41.10%	30	26.03%	19	73
34	"Assistive technology" OR "Assistive technologies" OR "Assistive device"	23.38%	18	44.16%	34	25.97%	20	77

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 $\textbf{Table A2.} \ \ Q8 \\ -- Do \ you \ think \ there \ is \ an \ impact \ of \ \dots \ on \ the \ Canadian \ Index \ of \ Wellbeing \ indicators?$ 

#	Question	Environmental Activism YES	]	Environmental Activism NO		vironmental Activism No Opinion		Total
1	Environment	80.28%	57	2.82%	2	12.68%	9	71
9	Nonrenewable material	78.87%	56	8.45%	6	8.45%	6	71
6	Freshwater	74.65%	53	8.45%	6	12.68%	9	71
4	Air	70.42%	50	9.86%	7	14.08%	10	71
7	Energy	66.67%	46	10.14%	7	15.94%	11	69
8	Biotic resources	64.79%	46	15.49%	11	14.08%	10	71
22	Participation	63.89%	46	13.89%	10	20.83%	15	72
12	Healthy population	61.11%	44	13.89%	10	22.22%	16	72
21	Living standard	59.42%	41	11.59%	8	23.19%	16	69
2	Democratic engagement	58.33%	42	12.50%	9	26.39%	19	72
5	Social engagement	58.33%	42	22.22%	16	18.06%	13	72
27	Leadership	56.94%	41	19.44%	14	19.44%	14	72
10	Social norms	55.56%	40	20.83%	15	19.44%	14	72
3	Lifestyle	55.56%	40	19.44%	14	19.44%	14	72
16	Public health	53.62%	37	24.64%	17	15.94%	11	69
15	Education	52.11%	37	23.94%	17	21.13%	15	71
19	Attitudes toward others	50.68%	37	23.29%	17	21.92%	16	73
20	Community safety	50.68%	37	28.77%	21	16.44%	12	73
34	Culture	50.00%	35	18.57%	13	24.29%	17	70
11	Social Relationships	49.32%	36	27.40%	20	19.18%	14	73
26	personal wellbeing	48.61%	35	27.78%	20	19.44%	14	72
24	Life expectancy	43.66%	31	28.17%	20	22.54%	16	71
25	Healthcare OR "Health care"	42.86%	30	25.71%	18	27.14%	19	70
33	Knowledge	42.86%	30	37.14%	26	14.29%	10	70
18	Income	42.25%	30	30.99%	22	22.54%	16	71
23	Mental health	40.85%	29	25.35%	18	29.58%	21	71
29	Physical health	40.00%	28	31.43%	22	21.43%	15	70
30	Communication	39.73%	29	26.03%	19	31.51%	23	73
31	Social Support	38.89%	28	25.00%	18	31.94%	23	72
14	Leisure	38.57%	27	20.00%	14	32.86%	23	70
13	Competencies	37.50%	27	25.00%	18	31.94%	23	72
17	Functional health	36.62%	26	33.80%	24	25.35%	18	71
28	Economic security	33.80%	24	26.76%	19	33.80%	24	71
32	Skill	31.43%	22	35.71%	25	28.57%	20	70
35	Time	25.76%	17	31.82%	21	34.85%	23	66

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Regarding the perceived impact of environmental activism, Table A2 shows that the sentiment that environmental activism has an impact (no option for positive/negative) was higher for most indicators than the "no impact" sentiment, with around 12–50% saying that they could not say/had no opinion.

#	Question	Environmental Activism YES		nvironmental Activism NO		vironmental Activism No Opinion		Total
2	Environment	69.74%	53	6.58%	5	17.11%	13	76
3	Physical environment	60.53%	46	11.84%	9	21.05%	16	76
4	Community	53.33%	40	16.00%	12	26.67%	20	75
5	Life Satisfaction	52.00%	39	17.33%	13	26.67%	20	75
6	Jobs	48.00%	36	21.33%	16	28.00%	21	75
7	Education	46.67%	35	24.00%	18	22.67%	17	75
8	Civic Engagement	44.00%	33	10.67%	8	37.33%	28	75
9	Safety	41.89%	31	22.97%	17	28.38%	21	74
10	Health	36.00%	27	26.67%	20	32.00%	24	75
	Housing	36.00%	27	26.67%	20	28.00%	21	75
11	Work life balance	32.88%	24	31.51%	23	27.40%	20	73
12	Income	28.77%	21	36.99%	27	28.77%	21	73

Regarding the perceived impact of environmental activism, Table A3 shows that the sentiment that environmental activism has an impact (no option for positive/negative) was higher for most indicators than the "no impact" sentiment, with around 12–50% saying that they could not say/had no opinion.

**Table A4.** Q10—Do you think there is an impact of ... on the Social Determinants of Health (SDH) indicators?

#	Question	Environmenta Activism YES	1	Environmental Activism NO		Environmental Activism No Opinion		Total
30	"Aboriginal*" OR "First Nations" OR "Metis" OR "Indigenous people*" OR "Inuit"	66.67%	50	6.67%	5	21.33%	16	75
28	Physical environment	62.34%	48	15.58%	12	16.88%	13	77
4	Advocacy	60.00%	45	16.00%	12	22.67%	17	75
27	Globalization	57.53%	42	6.85%	5	30.14%	22	73
6	Social engagement	46.67%	35	20.00%	15	30.67%	23	75
22	Food Insecurity	44.74%	34	28.95%	22	21.05%	16	76
9	Social status	42.31%	33	23.08%	18	28.21%	22	78
10	Immigration	42.11%	32	23.68%	18	28.95%	22	76
19	Transportation	40.79%	31	26.32%	20	27.63%	21	76
13	Education	40.00%	30	28.00%	21	25.33%	19	75
7	Employment	38.67%	29	26.67%	20	32.00%	24	75
1	Housing	38.67%	29	32.00%	24	24.00%	18	75

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Table A4. Cont.

#	Question	Environmental Activism YES		Environmental Activism NO		Environmental Activism No Opinion		Total
16	Unemployment	37.33%	28	32.00%	24	25.33%	19	75
15	Social Exclusion	36.84%	28	30.26%	23	31.58%	24	76
2	Social Safety Network	35.53%	27	25.00%	19	31.58%	24	76
29	Income	35.53%	27	28.95%	22	27.63%	21	76
3	Stress	35.14%	26	29.73%	22	29.73%	22	74
11	People of ethnic minorities	34.67%	26	26.67%	20	32.00%	24	75
5	Health Services	34.67%	26	25.33%	19	32.00%	24	75
25	Social integration	34.67%	26	28.00%	21	32.00%	24	75
14	Early Childhood Development	32.89%	25	38.16%	29	23.68%	18	76
24	Job Security	30.26%	23	31.58%	24	34.21%	26	76
12	"Women with disabilities" OR "Disabled women"	29.33%	22	34.67%	26	32.00%	24	75
8	Discrimination	28.95%	22	35.53%	27	32.89%	25	76
23	Literacy	28.38%	21	39.19%	29	27.03%	20	74
21	Gender	26.32%	20	44.74%	34	26.32%	20	76
26	Vocational training	24.32%	18	29.73%	22	40.54%	30	74
20	Genetic	24.32%	18	41.89%	31	27.03%	20	74
18	Coping	22.97%	17	27.03%	20	43.24%	32	74
17	Walkability	17.11%	13	50.00%	38	25.00%	19	76

Regarding the perceived impact of environmental activism, Table A4 shows that the sentiment that environmental activism has an impact (no option for positive/negative) was higher for most indicators than the "no impact" sentiment, with around 12–50% saying that they could not say/had no opinion. Aboriginal people were reported by the highest percentage of students as being impacted by environmental activism.

## Appendix B

**Table A5.** Hit counts for social indicators from the existing literature and well-being terms and international conventions, declarations, and goal-setting documents (used in Tables 3 and 9 in [210]) in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
Well-Being						
"Wellbeing" OR "well-being" or "well being"	9	224	342	44	5	257
"Economic wellbeing" or "Economic well-being" or "Economic wellbeing"	0	7	6	5	0	0

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Table A5. Cont.

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Emotional wellbeing" or "Emotional well-being" or "Emotional wellbeing"	0	0	0	0	0	0
"Environmental wellbeing" or "environmental well-being" or "environmental well being"	0	5	8	1	0	2
"Psychological wellbeing" or "Psychological well-being" or "Psychological well being"	0	2	0	2	0	2
"Social wellbeing" or "social well-being" or "social well being"	0	8	13	1	0	13
"Societal wellbeing" or "Societal well-being" or "Societal well being"	0	1	0	0	0	3
"Subjective wellbeing" or "Subjective well-being" or "Subjective well being"	1	0	10	4	0	1
The documents						
"Convention on the rights of Persons with Disabilities"	0	0	0	0	0	0
"Convention on the rights of the child"	1	0	0	0	0	0
"Convention on the Elimination of All Forms of Discrimination against Women"	0	0	0	0	0	0
"Declaration on the Rights of Indigenous Peoples"	0	0	4	0	0	0
"International Convention on the Elimination of All Forms of Racial Discrimination"	0	0	0	0	0	0
"Universal Declaration of Human Rights"	0	3	0	0	0	0
"UN Framework Convention on Climate Change"	1	7	16	6	0	0
"Transforming our world: the 2030 agenda for sustainable development"	0	0	0	0	0	0
"UN flagship report on disability and development"	0	0	0	0	0	0

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Table A5. Cont.

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
Various indicators of	the social					
"Autonomy"	4	69	136 (hits)	59	1	33
"Bias"	13	64	76	53	1	17
"COVID"	7	27	34	29	1	16
Data protection	0	0	6	0	0	52
"Dignity"	1	8	8	8	1	4
"Environmental Ethic*"	10	309	17	265	0	149
"Good life"	1	16	5	12	0	7
"Health equity"	9	0	2	0	0	0
Identity	35	756	259	643	10	246
Independence	5	56	32	48	0	20
Interdependence	3	32	68	31	0	22
Interdependent	2	18	36	14	0	4
Justice	274 (hits)	990	698	906	33	293
Privacy	1	4	15	3	1	2
"Quantum ethics"	0	0	0	0/	0	0
Respected	2	12	12	11	1	0
Respecting	1	14	11	12	0	3
"Self- determination"	1	40	42	38	2	27
"Social good"	0	6	2	12	4	4
"Social impact*"	2	17	39	14	0	29
"Social implication*"	5	20	8	22	0	18
"Social responsibility"	7	154	162	161	10	153
Social	1202 (hits)	4299	X	X	272 (hits)	X
"Societal impact*"	0	3	0	2	0	5
"Societal implication*"	0	0	0	0	0	0
Societal	6	273	335	969	6	250
Solidarity	11	73	21	54	3	14
"Stereotype*"	4	49	0	29	1	3
Stigma	2	2	0	3	0	4
"Technological deskilling" OR "Deskilling"	0	0	0	0	0	0
Risk	74	512	X	373	25	X
"Social risk"	0	0	0	0	0	0

Table A5 shows that the abstracts on environmental activism or environmental advocacy rarely mentioned well-being as a general term; "environmentalism" or "environmental governance" or "environmental action\*" or "environmental steward\*" had more hits, although the number of available abstracts containing these terms was also higher. Specific forms of well-being had between 5 and 0 hits. For most of the international documents, "Convention on the rights of Persons with Disabilities", "Convention on the rights of the child", "Convention on the Elimination of All Forms of Discrimination against Women", "Declaration on the Rights of Indigenous Peoples", "International Convention on the Elimination of All Forms of Racial Discrimination", "Universal Declaration of Human Rights", "transforming our world: the 2030 agenda for sustainable development", and "UN flagship

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report on disability and development" had 0 hits; however, "UN Framework Convention on Climate Change" had the highest number of hits (16) within 16,669 articles on environmental governance.

**Table A6.** Hit counts for the terms used for 21 well-being measures in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
AQoL	0	0	0	0	0	0
Better life Index	0	0	0	0	0	0
Brief Inventory of Thriving	0	0	0	0	0	0
Calvert-Henderson Quality of Life	0	0	0	0	0	0
Canadian Index of wellbeing	0	0	0	0	0	0
Capability approach	0	0	0	1	0	0
Community-based rehabilitation	0	0	3	2	0	X
Community-based rehabilitation Matrix	0	0	0	0	0	0
Community rehabilitation	0	0	0	0	0	0
Comprehensive Inventory of Thriving	0	0	0	0	0	0
Determinants of health	0	1	1	3	0	X
Flourishing Scale	0	0	0	0	0	0
Index of well-being	0	0	0	0	0	0
Meaning in Life	0	2	0	0	0	0
Perceived Life Satisfaction	0	0	0	0	0	0
Satisfaction with life scale	0	0	0	0	0	0
Scale of Positive and Negative Experience	0	0	0	0	0	0
Social determinants of health	0	2	0	0	0	9
The Disability and Wellbeing Monitoring Framework and Indicators	0	0	0	0	0	0
The Quality of Being Scale	0	0	0	0	0	0
Well-being index	0	0	0	0	0	0

Of the 21 composite well-being measures, most had 0 hits and none had more than 5 hits (Table A6).

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**Table A7.** Presence of Community-based Rehabilitation Matrix indicators in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Primary Indicator	Secondary Indicator	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
Health		157 (hits)	656	663	344	173 (hits)	541
	"Healthcare" OR "Health care"	3	29	11	15	3	67
	"Assistive technology" OR "Assistive technologies" OR "Assistive device" OR "Assistive devices"	0	0	0	0	0	0
	"Health promotion"	1	0	7	5	1	8
	"Health prevention"	0	0	0	0	1	0
	Rehabilitation	2	21	15	19	2	16
Education		360 (hits)	728	313	652	46	615
	"Childhood education"	0	0	0	0	0	0
	"Primary education"	0	0	0	1	0	2
	"Secondary education"	3	3	0	5	1	1
	"Non-formal education"	0	3	0	3	0	0
	"Life-long learning"	0	3	0	0	1	0
Livelihood		9	167	372	13	2	68
	"Skills development"	0	0	0	0	0	6
	"Self-Employment"	0	0	0	0	0	0
	"Financial services"	0	0	7	0	1	4
	"Wage employment"	0	0	0	0	0	0
	"Social protection"	0	0	7	0	0	0
Social		1202 (hits)	4299	X	X	272 (hits)	X
	"Social relationship"	0	6	7	4	0	1
	Family	10	218	58	56	2	135
	"Personal Assistance"	0	0	0	0	0	0
	Culture	100 (hits)	1025	261	92	27	275
	Arts	7	254	70	51	7	54
	"Recreation OR Leisure OR "Sport*"	16	283	0	0	8	0
"Empower*"		19	186	309	55	3	64
	"Communication*"	204 (hits)	395	377	221	155 (hits)	232
	"Social mobilization"	4	13	11	1	1	0
	"Political participation"	12	15	10	2	1	5
	"Self-help groups"	2	0	0	0	0	0
	"Disabled people's organization" Or "disability organization"	0	0	0	0	0	0

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**Table A8.** Presence of Canadian Index of Wellbeing indicators in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Primary Indicator	Secondary Indicator	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Social Relationship*"		2	6	22	6	0	10
	"Social engagement"	0	1	0	1	2	3
	"Social Support"	0	7	6	0	0	0
	"Community safety"	0	0	0	0	0	2
"Social norms"		2	16	25	35	0	13
"Democratic engagement"		0	0	0	0	0	0
	Participation	255 (hits)	554	X	345	10	454
	"Communication*"	204 (hits)	395	377	221	155 (hits)	234
Р	Leadership	22	234	373	62	11	239
Education		360 (hits)	728	315	654	46	618
	Competencies	1	9	20	18	0	17
	Knowledge	112 (hits)	935	X	503	19	584
	Skill	6	52	76	77	0	146
Environment		492 (hits)	X	X	X	209 (hits)	X
	Air	109 (hits)	217	878	156	100 (hits)	151
	Energy	140 (hits)	697	X	331	13	648
	Freshwater OR water	123 (hits)	582	0	0	129 (hits)	0
	"Nonrenewable material"	0	0	0	0	0	0
	"Biotic resources"	1	0	0	0	0	0
"Healthy population"		0	0	2	0	0	0
	"Personal wellbeing" or "personal well-being" or "personal well being"	0	0	0	1	0	8
	"Physical health"	0	5	5	0	0	2
	"Life expectancy"	0	0	1	2	0	0
	"Mental health"	1	7	3	16	0	6
	"Functional health"	0	0	0	0	0	0
	Lifestyle	11	213	34	55	1	533
	"Public health"	8	61	83	39	23	56
	Healthcare or "Health care"	2	29	11	20	3	67
"Culture"		100 (hits)	X	285	73	27	238
Leisure		3	37	4	8	1	15
"Living standard"		0	4	7	1	0	6
	Income	10	229	323	48	7	124
	"Economic security"	0	5	1	0	0	3
Time		ND	ND	ND	ND	ND	ND

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**Table A9.** Presence of Better Life Index indicators in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Indicator	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalis (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Civic Engagement"	0	0	12	11	4	33
"Community"	309 (hits)	X	X	725	116 (hits)	X
"Education"	360 (hits)	728	318	647	46	616
Environment	492 (hits)	X	X	X	209 (hits)	X
"Health"	157 (hits)	656	685	342	173 (hits)	542
Housing	7	71	28	16	3	42
"Income"	10	229	316	45	7	124
"Jobs"	5	70	24	117	4	57
"Life Satisfaction"	2	6	0	1	0	3
"Physical environment"	1	33	6	12	0	7
"Safety"	3	61	157	105	8	244
"Work life balance"	0	1	0	0	0	0

**Table A10.** Presence of Social Determinants of Health (SDH) indicators in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Indicator	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalis (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Aboriginal" OR "First Nations" OR "Metis" OR "Indigenous Peoples" OR "Inuit" OR "Native American"	31	310	308	14	9	80
Advocacy	19	260	82	30	733 (hits)	43
Coping	3	9	46	14	0	14
"Women with disabilities" OR "Disabled women"	0	0	0	0	0	0
Discrimination	5	12	14	5	0	5

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Table A10. Cont.

Indicator	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Early Childhood Development"	0	0	0	0	0	0
"Education"	360 (hits)	728	318	647	46	616
"Employment"	6	50	59	11	4	128
"Ethnic"	12	222	32	6	4	12
"Food Insecurity"	1	0	13	0	0	2
"Gender"	101 (hits)	636	130	56	5	71
"Genetic"	6	46	136	32	2	28
"Globalization"	17	305	261	17	3	36
"Health Service*"	0	0	0	7	1	3
"Housing"	6	71	28	15	3	137
"Immigration"	0	56	6	0	1	0
"Income"	10	229	254	55	7	124
"Job Security"	0	0	0	0	0	0
"Literacy"	3	26	12	40	3	43
"Physical environment"	1	33	6	12	0	7
"Race" or "Racialized"	16	267	52	20	3	34
"Social engagement"	0	1	0	1	2	1
"Social exclusion"	0	8	10	0	0	0
"Social integration"	0	4	2	0	0	2
"Social safety network"	0	0	0	0	0	0
"Stress"	4	55	82	103	1	38
"Transportation"	7	41	86	39	6	120
"Unemployment"	2	13	10	4	0	0
"Vocational training"	1	0	1	0	0	0
"Walkability"	0	0	0	0	0	3
"Social status"	1	12	15	6	0	12
"Socio- economic status"	0	0	4	5	0	0

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Most of the individual indicators of the Community-based Rehabilitation Matrix, Canadian Index of Wellbeing, OECD Better Life Index and Social Determinants of Health (Tables A7–A10) had few hits, with the exceptions of general terms such as "education" and "social".

**Table A11.** Frequency of EDI phrases and frameworks in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

EDI Terms, Phrases, and Frameworks	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
EDI Frameworks						
"Athena SWAN"	0	0	0	0	0	0
"NSF ADVANCE"	0	0	0	0	0	0
"See change with STEMM Equity Achievement"	0	0	0	0	0	0
"Dimensions: equity, diversity and inclusion"	0	0	0	0	0	0
"Science in Australia Gender Equity"	0	0	0	0	0	0
EDI phrases						
"Diversity, equity and inclusion"	0	0	0	0	0	0
"Equity, diversity and inclusion"	0	0	1	0	0	0
"Equality, diversity and inclusion"	0	0	0	0	0	0
"Justice, equity, diversity, and inclusion"	0	0	0	0	0	0
"Diversity, equality and inclusion"	0	0	0	0	0	0
"Inclusion, diversity, equity and accessibility"	0	0	0	0	0	0
"Diversity, equity, inclusion and belonging"	0	0	0	0	0	0
"Equity, diversity, inclusion, and accessibility"	0	0	0	0	0	0
"Equity, diversity, inclusion, and decolonization"	0	0	0	0	0	0
"Belonging, dignity, and justice"	0	0	0	0	0	0

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Table A11. Cont.

EDI Terms, Phrases, and Frameworks	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Diversity, dignity, and inclusion"	0	0	0	0	0	0
"Inclusion, diversity, equity and accountability"	0	0	0	0	0	0
EDI concepts makir	ng up EDI phrases					
Accessibility	1	16	44	10	1	30
Accountability	5	45	561	11	4	124
Belonging	5	76	29	16	1	27
Decoloniz*	6	38	315	0	0	5
Dignity	1	8	8	6	1	6
Diversity	22	372	528	63	9	11
Equality	7	54	44	5	2	18
Equity	4	160	247	13	1	63
Inclusion	8	206	259	30	10	45
Justice	240 (hits)	990	698	90	26	150
"Inclusion and diversity"	0	0	0	0	0	0
"Inclusion" AND "diversity" AND "equality"	0	0	1	0	0	0
"Inclusion" AND "diversity" AND "equity"	0	0	10	0	0	2

No EDI phrases and frameworks generated any hits (Table A11).

**Table A12.** List and frequency of EDI-related groups, isms, and phobias (many terms linked to disabled people taken from [130] (p. 38)) in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

List of EDI Groups	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online search of Abstracts) 5613
EDI-related Group	S					
ADHD	0	0	1	0	0	0
"African- American"	4	30	5	6	0	6
Addiction	0	5	0	0	0	0
"Anxiety disorder"	0	0	0	0	0	0
Asian	2	69	65	25	4	15

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Table A12. Cont.

List of EDI Groups	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online search of Abstracts) 5613
"Attention deficit"	0	0	30	0	0	0
Autism	0	0	0	3	1	0
"Autism spectrum disorder"	0	0	0	0	0	0
"Black" (related to people)	6	175 (not looked at in which context)	0	1	0	3
"Chronic disease"	0	0	0	0	0	0
"Chronic pain"	0	3	0	0	0	0
"Comprehension disability"	0	0	0	0	0	0
Deaf	1	1	0	0	0	0
Depression	1	30	4	5	0	1
Diabetes	0	0	2	0	1	0
Disabilit*	4	20	2	3	0	4
Disabled	1	10	0	3	0	1
"Disabled people"	1	7	0	2	0	0
Disease	3	53	57	39	5	37
Dyslexia	0	0	0	0	0	0
Ethnic*	12	222	41	13	4	20
Gay OR lesbian or "homosexual*"	1	32	0	0	0	0
Gender	101	636	142	57	8	75
"Hearing impairment"	0	0	0	0	0	0
Hispanic*	3	14	0	0	0	1
"HIV/AIDS"	0	3	0	1	0	0
Impaired	0	3	8	0	3	12
Impairment	0	0	3	9	2	5
"Indigenous People*" OR "Aboriginal*" OR "First Nation*" OR Metis OR Inuit OR "Native American*"	31	310	0	0	9	2
Latin*	7	163	220	11	3	15
"Learning disability" OR "learning impairment"	0	1	0	0	0	0
"LGBT*"	1	17	0	4	0	0
"Medical condition"	0	0	0	0	0	0
"Mental health"	0	7	4	16	0	6
"Mental illness"	0	6	0/	0	0	0

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Table A12. Cont.

List of EDI Groups	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online search of Abstracts) 5613
"Neurodiv*"	0	1	0	0	0	0
"Of color"	0	38	11	410	2	7
Patient		6	13	12	0	34
"People with disabilities"	0	2	3	1	1	0
"Physical disability"	0	1	0	0	0	0
Race	16	240	51	20	3	27
"Racialized"	0	27	5	0	0	15
"Racialized minorit*"	0	0	0	0	0	0
Schizophrenia	0	0	0	0	0	0
"Speech impairment"	0	0	0	0	0	0
Transgender	1	1	0	0	0	0
"Visible minorit*"	0	0	0	0	0	0
"Visual impairment"	0	0	0	0	0	0
Wheelchair	1	0	0	0/	0	0
Women	267 (hits)	522	152	60	8	51
Isms, and Phobias						
Ableism	1	4	0	0	0	0
Activism	2410 (hits)	ND	173	86	13	29
"Ageism or agism"	1	0	0	0	0	0
Anti-racism	0	4	0	0	0	0
Colonialism	8	167	28	2	2	12
Disablism	0	0	0	0	0	0
Ecofeminism	15	152	5	1	1	3
Elitism	1	6	10	0	0	0
Feminism	6	301	9	1	2	1
Globalism	0	27	6	0	0	2
Homophobia	0	2	0	0	0	0
Imperialism	1	47	9	2	0	3
Interculturalism	0	0	0	0	0	0
"Multi culturalism"	0	2	0	0	0	0
Nationalism	5	148	9	4	2	3
Neoliberalism	7	150	176	1	0	9
Pluralism	2	31	48	0	1	5
Professionalism	0	16	12	1	1	1
Racism*	6	159	9	37	0	4
Sexism	1	8	0	1	0	0

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Table A12. Cont.

List of EDI Groups	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental action*" (Online Search of Abstracts) 4910	"Environmental advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online search of Abstracts) 5613
Supremacism	0	0	0	0	0	0
Tokenism	0	0	3	0	0	1
Transphobia	0	0	0	0	0	0
Universalism	3	25	0	8	0	0

Many of the EDI group-related terms had few or no hits—disability-related terms, especially, mostly had 0 zero. Additionally, other EDI group terms often had few or no hits (Table A12).

**Table A13.** Hit counts for some established and emerging technologies discussed as having an impact on "social" in abstracts mentioning technologies in abstracts mentioning "environmental activism" or "environmentalism" or "environmental governance" or "environmental action\*" or "environmental advocacy" or "environmental steward\*".

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
Some technologies						
"Artificial intelligence" or "machine learning"	1	6	10	6	0	6
"Assistive technolog*"	0	0	0	0	0	0
"Communication technolog*"	8	12	40	9	0	10
"Engineering"	4	59	83	73	17	146
"Genetic science"	0	0	0	0	0	0
"Genetic technolog*"	2	4	0	0	0	6
"Information technolog*"	4	33	33	4	0	31
"Neuroenhancement*" OR "neuro enhancement*" OR "moral enhancement*" OR "cognitive enhancement*", OR "human enhancement"	0	0	0	0	0	0
"Neuroscience*"	0	0	0	1	0	2
"Quantum"	0	3	21	4	0	6
"Robotics" OR "robot" OR "robots"	1	7	4	7	0	1
"Technolog*"	183 (hits)	Х	X	X	26	784
"Virtual reality"	0	0	0	0	0	12
Some science and tech	nology governance term	ns				
"Anticipatory governance"	0	0	7	0	0	0
"Democratizing science and technology"	0	0	0	0	0	0
"Parliamentary technology assessment"	0	0	0	0	0	0

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Table A13. Cont.

Terms	Environmental Activism (Search of Downloaded Abstracts) 884	Environmentalism (Online Search of Abstracts) 14,880	"Environmental Governance" (Online Search of Abstracts) 16,669	"Environmental Action*" (Online Search of Abstracts) 4910	"Environmental Advocacy" (Search of Downloaded Abstract) 336	"Environmental Steward*" (Online Search of Abstracts) 5613
"Participatory technology assessment"	0	0	0	0	0	0
"Responsible innovation"	0	1	4	0	11	0/
"Responsible research and innovation"	0	0	2	0	0	0
"Science and technology governance"	0	0	0	0	0	0
"Technology assessment"	0	1	0	0	0	0
"Transformative vision assessment"	0	0	0	0	0	0
"Upstream engagement"	0	0	0	0	0	0
"Technology governance"	0	0	4	0	9	0
Some Ethics Fields						
"AI-ethics"	0	0	1	0	0	0
"Bioethics"	9	9	0	0	1	0
"Business Ethics"	2	16	2	1	1	5
"Computer science ethics"	0	0	0	0	0	0
"Environmental Ethics"	10	309	16	17	0	35
"Information technology ethics"	0	0	0	0	0	0
"Nanoethics"	0	0	0	0	0	0
"Neuroethics"	2	2	0	0	0	0
"Quantum Ethics"	0	0	0	0	0	0
"Robo-ethics"	0	0	0	0	0	0

Regarding technologies, the generic term had some hits, but most specific technologies had no hits. Most scientific and technology governance concepts had no hits, and ethics fields and environmental ethics terms had some hits, although still very few (Table A13).

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