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Student-Led Campus Climate Change Initiatives in Canada

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Student-Led Campus Climate Change Initiatives in Canada

Abstract

Purpose

This article provides a comprehensive list of student-led, campus-based climate change initiatives, and offers details on many specific cases. The article also documents the roles students have played and considers the larger youth engagement implications. Many of these initiatives can be replicated elsewhere, thereby providing a starting point for students wanting to begin an initiative or providing ideas for other campus stakeholders wanting to engage students in initiatives.

Design/methodology/approach

Campus reports were collected by the Sierra Youth Coalition from 65 Canadian universities and colleges. This qualitative information was coded for student-led climate-related initiatives, and for the roles students played in those initiatives. The patterns were identified and clustered, and are presented in this article.

Findings

Students were found to be successfully leading eight different types of campus climate change-related initiatives, both with the support of other campus stakeholders and without this support. Students were also found to be able to successfully take on a variety of types of leadership roles in these initiatives. Youth engagement ranged from socialization to influence to power, depending on the type of initiative.

Research limitations/implications

A limitation of this research is that only 65 of the approximately 227 colleges and universities in Canada participated. Also, it is possible that some schools may not have reported all student-led initiatives, or all the student roles. In addition, the data was limited to the 2007 / 2008 academic year, so is limited to the initiatives which occurred in that year.

Originality/value

This article presents different types of student-led climate change initiatives, the roles students have played in these initiatives, and the implications for youth engagement in creating climate change solutions. It contributes to the climate change, the campus sustainability, and the social movements literatures.

Keywords: Canada, climate change, student-led, Sierra Youth Coalition, youth movement, student movement

Type of paper: Research paper

Student-Led Campus Climate Change Initiatives in Canada

1.0 Introduction

There are a variety of different types of campus climate initiatives taking place on universities and colleges in Canada. These range from renewable energy production to reducing emissions through energy efficiency, behaviour change and institutional change. This article focuses on a gap in the campus climate literature, that is, the spectrum of initiatives led by students. By determining what climate change initiatives were being led by students on Canadian university and college campuses in 2007, considering the roles students played in these initiatives, and the levels of youth engagement, this article contributes to the climate change literature, the campus sustainability literature, and the social movements literature (in particular the youth engagement part of that literature).

Specific to climate change related initiatives on campuses, the literature has discussed: energy reduction through social marketing to students, building design, and energy efficient equipment (Kahler, 2003; Marcell et al., 2004; Pearce, 2006); greenhouse gas inventories and energy savings calculations (Marcell et al., 2004; Pearce, 2006); and purchasing or generating renewable energy (Marcell et al., 2004). Besides these energy related initiatives, campuses also tackle greenhouse gas reduction through offsets, refrigerants, transportation, waste, agriculture, and purchasing initiatives (Sierra Youth Coalition, 2008b). Literature about processes for campus sustainability also includes content on climate change. For example, the multi-stakeholder approach to climate initiatives was recently documented in Helferty, Clarke and Kouri (forthcoming). The Campus Sustainability Assessment Framework (CSAF) (Beringer, 2006; Cole and Wright, 2005), which is active on over 30 Canadian campuses (Sierra Youth Coalition, 2008c), includes sections related to climate change, as do the policies related to campus environmental management systems (Clarke, 2006). In most of these different initiatives, students have played important roles, yet most of the literature does not consider the features that are particular to youth engagement, and in particular student leadership.

Youth “feel a relatively strong affinity to the environmental movement and regard environmental problems as important” (p. 177, Strandbu and Krangle, 2003). Yet, youth in general, and students in particular, form a demographic which has limited access to the decision-making which decides their future (Charlebois, 2008). Perhaps as a result of this, young people make up a social movement which is known to work outside the decision-making systems to both critique the status quo and to create their own solutions (Pleyers, 2004). Youth groups function in unique ways; Ginwright and James (2002) identified five principles of youth involvement in social issues: 1) analyzing power in social relationships; 2) making identity central; 3) promoting systemic change; 4) encouraging collective action; and 5) embracing the youth culture. Related to these principles are the practices of providing holistic solutions which build on youth identity and desire for collective action (Ginwright and James, 2002). Gauthier (2003) offered a classification to express the degree of involvement of the youth. This classification ranges in the level of influence. The categories are: 1) socialization through group involvement or through symbolic participation in ‘mock’ decision-making; 2) influence through protests, through being a representative in decision-making bodies, or having a youth advisory body; and 3) power through partnerships (Gauthier, 2003).

This article addresses three research questions:

- What are the different types of student-led climate change initiatives on Canadian campuses in 2007?
- What roles have students played in these initiatives?
- What can be learned about youth engagement from these student-led initiatives to combat climate change?

2.0 Methodology

Empirical data was collected by the Sierra Youth Coalition on student-led campus climate initiatives in Canada, in the 2007-2008 academic year. The Sierra Youth Coalition (SYC) is the main Canadian organization which supports campus sustainability (Sierra Youth Coalition, 2008d). Since its founding in 1996 as the youth branch of Sierra Club Canada, SYC has been working with students from all over

Canada to support them in making their campuses more sustainable through its Sustainable Campuses program. As of April 2008, SYC was working with 55 university campuses of a total of 92 which are members of the national higher education association (Association of Universities and Colleges in Canada, 2008), and 10 colleges of a total of 135 which are members of the national association of community colleges (Association of Canadian Community Colleges, 2008; Sierra Youth Coalition, 2008c). While climate change-related initiatives have always been a component of Sustainable Campuses, it was when the Campus Climate Challenge was initiated in 2006 through the US-Canada Energy Action Coalition that it became a primary focus of the program (Sierra Youth Coalition, 2008a).

Data was gathered throughout the 2007 / 2008 academic year by Sierra Youth Coalition staff through campus visits, phone conversations, and an email questionnaire with student leaders at the 65 campuses with which SYC works. These methods ensured a 100% response rate from these schools. The universities and community colleges are from every province of Canada and data was collected in both English and French. The data collection was conducted as part of SYC's annual evaluation of the Sustainable Campus program, and was therefore broader than the purpose of this article. The campuses involved have participated in a variety of SYC programs that relate to climate change, specifically: 20 have conducted greenhouse gas inventories, 31 have engaged in an assessment using the Campus Sustainability Assessment Framework, 57 have multi-stakeholder processes, 24 have an environmental policy, 26 have a sustainability policy, 21 have environmental coordinators and 32 have sustainability coordinators. The content from the questionnaires and other methods of data collection was compiled into one document which included all the campus reports (Sierra Youth Coalition, 2008c). This document was coded for student-led climate change initiatives, and for the roles students played. The patterns were determined and the findings clustered into categories which are presented in this article.

A limitation of this research is that only 65 of the approximately 227 colleges and universities in Canada participated. Also, it is possible that some schools may not have reported all student-led initiatives, or all the student roles. In addition, the data was limited to the 2007 / 2008 academic year, so is limited to the initiatives which occurred in that year.

3.0 Types of Student-Led Campus Climate Initiatives

There are many different types of campus climate change-related initiatives. Eight different categories were identified. Outlined in this section are examples of the following types of student-led initiatives: 1) awareness-raising; 2) sustainability assessments and/or GHG inventories; 3) sustainability funds; 4) residence challenges; 5) on-campus retrofits or renewable energy production on campuses; 6) multi-sectoral collaboration; 7) staff/faculty-focused programs; and 8) policy development. Table 1 details how many of the 65 campuses are engaged in each of these student-led initiatives.

Table 1: Types of Student-Led Campus Climate Change Initiatives in 2007 / 2008

Type of initiative	Examples	Number of campuses ¹
Awareness-raising	General awareness	45
	Green week	15
	Conference	15
	Recycling	13
	Action (Fossil Fools)	8
	Cycling and bike repair	6
Assessments	Campus Sustainability Assessment Framework	31

¹ It should be noted that the number of campuses is likely under-represented, as the data collection was an open-ended qualitative questionnaire and respondents were not specifically requested to list specific items. They were instead requested to generally report on their student-led campus sustainability initiatives which took place in the 2007 / 2008 academic year.

	GHG inventory	20
Sustainability funds	Fund creation	8
Residence challenges	Residence challenge	6
On-campus retrofits or renewable energy production on campuses	Retrofit or on-campus renewable energy production	5
Multi-sectoral collaboration	Strategic planning	5
	Go Beyond (British Columbia)	3
Staff/faculty-focused programs	Sustainable Ambassadors	1
Policy development	PaperCut	6
	Offsets	3
	Student Union Policy	3
	U Pass (for transportation by bus)	3

3.1 Awareness-Raising

The most common type of student-led initiative is focused on awareness-raising – it can be both a project in itself or combined with other types of programming with the aim of facilitating behavioural change on campus and providing campus community members with concrete options for taking personal action to reduce their impact on the climate. An example of this type of initiative is organizing Green Weeks or Earth Weeks – a week-long series of events to get a broader message out to the student body. In 2007/2008 in Quebec alone, Bishop’s University held an Environmental Awareness Week, École Polytechnique held an Environment Week, the Université du Québec à Rimouski held a Green Week, the Université du Québec à Trois-Rivières held an EcoCultural Week, and McGill University’s Macdonald campus held an Environmental Awareness Week. These events encompassed awareness-raising through methods such as posters, petitions, tabling, film screenings, speakers, banners, and a variety of other initiatives. A total of fifteen Green Weeks were counted on the 65 campuses surveyed for this paper across Canada in the 2007/2008 academic year.

Two primary themes of awareness-raising activities are action-based initiatives around cycling and recycling. Often, these are combined with a more institutional aspect – for example, at the École de technologie supérieure (ÉTS) in Montreal, the students launched a bike repair shop as part of a Fossil Fools Day awareness-raising activity, and students at the University of Manitoba started a bike repair and training shop and held a commuter competition as part of their Campus Climate Challenge initiatives. At the University of Western Ontario, students promoted recycling education in residences and the Green Team at the University of Toronto’s Mississauga campus, a group of 30 students who participate in on-campus environmental issues through work-study positions, coordinated educational programming around recycling and alternative transportation.

In addition to events focused specifically on raising awareness about individual action, there are often awareness components to broader programs. For example, at Concordia University, the launch of the second campus sustainability assessment conducted using the CSAF in February of 2006 was combined with a gala event to publicize the launch to the university community.

3.2 Sustainability Assessments and Greenhouse Gas Inventories

A key component of campus sustainability programs has been and continues to be establishing a baseline of the sustainability of the institution from which strategic planning and implementation strategies can be developed. There are many different ways that these assessments are undertaken. For example, at Queen’s University, the assessment was undertaken primarily through volunteer efforts. At Simon Fraser University, the assessment was undertaken through an undergraduate course and a graduate course for students to receive credit for their research, and at the University of Waterloo it was undertaken as part of an Environmental Resource Studies class. At Trent University, the student group Sustainable Trent applied for summer work positions to be created so that students are paid to coordinate

the assessment, which they hope to complete in the 2008/2009 academic year. At Lakehead University, a student levy was passed to create a part-time sustainability commissioner position that will be responsible for coordinating the assessment, which will likely be completed through coursework. At the University of Toronto's St. George campus, the assessment was originally undertaken in the administrative Sustainability Office but responsibility has shifted to the student union. Much of the research has been conducted through coursework, but there have been work-study and volunteer positions dedicated to working on it as well. At the University of Toronto's Mississauga campus, the assessment is highly institutionalized under the direction of the Environmental Projects Coordinator.

An essential and sometimes challenging phase of the work after an assessment is conducted is to move into a planning and implementation phase. This has been particularly successful at a few institutions; for example, at the Université de Moncton, waste was identified as a key area for improvement and a university-wide waste policy has been drafted in addition to the purchase of new recycling bins. At the University of Prince Edward Island, the one-year Transportation Demand Coordinator position was able to increase the number of bike racks on campus, create a bike bursary fund, increase public transit on campus, and host bike maintenance workshops.

3.3 Sustainability Funds

There has been a movement in the past few years of students passing levies on their campuses to generate funds for student-run climate projects. In the 2008/2009 academic year, this has been particularly true of the campuses in Quebec where a Pacte des Générations campus tour was organized by Youth Action Canada and Consortium-Évolution in partnership with the Sierra Youth Coalition, Regroupement des jeunes chambres de commerce du Québec, Oxfam-Québec, and Regroupement nationale des conseils régionaux de l'environnement du Québec. As a result of this tour, the Quebec government announced a \$250,000 fund for campus sustainability initiatives. Student fees to promote climate action on campuses have been passed in Quebec at Bishop's University, Concordia University, and HEC. At Lakehead University in Thunder Bay, Ontario, a \$3 fee was passed at a student referendum that had the highest voter turnout in the history of the university.

3.4 Residence Challenges

Residence Challenges have become more and more common as they are identified as an easy and effective way of engaging a targeted group of students in reducing their energy consumption as well as a great first step in creating institutional change. In the 2007-2008 academic year, residence challenges were undertaken by the Environment Residence Council at McGill University in Quebec, Dalhousie University and St Francis Xavier University in Nova Scotia, and at Queen's University, the University of Guelph, and the University of Waterloo in southern Ontario.

A unique aspect of the program in southern Ontario was that the competition was both between residences within each of the three campuses and between each campus. The intra-university competition was based on the actual energy reductions where metering allowed, and the proportion of students to sign a pledge to reduce their energy consumption where individual buildings were not metered, and the inter-university competition was based on the percentage of students in residence who signed the pledges. Both of these levels of competition were coordinated through the Sierra Youth Coalition Sustainable Campuses program – with prizes also provided to the winning residences and university through a grant provided from the Ontario Ministry of Energy Community Conservation Initiatives program. Some great results were seen from the program – 46% of students in residence signed the pledge in the winning campus out of a total of 729 students in residence, and electricity consumption was reduced by an average of 4%. It was estimated that a total of 2500 students signed the pledge across the three campuses, and approximately 10,000 students were exposed to the program.

An additional benefit of the program is that it provided in additional impetus to install individual energy meters in residences that did not previously have this capability. Students proved that they were interested in the energy efficiency of their residence buildings, and were provided through this initiative with the opportunity to build relationships with the Facilities Management on their campuses. The support

of student unions or associations and the residence student-staff were also critical to the success of the program. Due to the high level of institutional involvement in the program, commitments were made to repeat the program at Queen's University, the University of Guelph and the University of Waterloo and the grant from the Ontario Ministry of Energy was expanded to include four more campuses in the 2008/2009 academic year.

3.5 Retrofits and On-Campus Renewable Energy Production

While on-campus production of renewable energy is not the focus of many student-led initiatives at this point, there are a few examples of where this type of initiative is in progress. For example, at the University of Saskatchewan (U of S), a group of students has undertaken the design and construction of a small wind turbine that they hope to erect on the U of S campus. With the support of Margret Asmuss, the Sustainability Coordinator at the U of S, they have been going through an approvals process in the hope that the wind turbine will become a testament to student-led projects on campus. It is the intent of the student group undertaking the project, Footprint Designs, that the maintenance of the wind turbine be integrated into course curricula. Footprint Designs has expressed the need for a multi-stakeholder approach to this initiative and indicated that the process could have been simpler if the U of S had a formal commitment to sustainability. While this is not a long-term initiative, the success of this project could have a significant impact on the perception of student-led climate-related projects at the U of S, which could result in more cohesive initiatives being undertaken.

Another example of a student-led project to produce renewable energy on campus is a proposal developed by the student Environmental Officer at the Student Union at St Francis Xavier University in Antigonish, Nova Scotia, to install solar panels on one of the main buildings on campus. In spring 2008, the project was in final stages of approval.

While a number of universities and colleges are undertaking energy retrofits on their campuses, these are not often student-led initiatives. An example of a student-led retrofit initiative is at the Université du Québec à Montréal where the energy sub-committee of the student union environmental committee is working on a project to implement automatic lights in hallways. In Canada student union buildings are often own and operated by the Student Union. Since retrofits are often undertaken for cost-saving purposes, at this point the projects are most often led by staff in the operations of the larger university.

3.6 Multi-Sectoral Collaboration

An innovative example of student-led multi-sectoral collaboration is *Go Beyond*, a project developed collectively by Common Energy, a student group at the University of Victoria, the Sierra Youth Coalition, and the Sustainability Office at the University of British Columbia. The launch of *Go Beyond* is planning to pilot in fall 2008 at three universities, with twelve more campuses to be added in a second launch. The goal of *Go Beyond* is to facilitate collaborative planning processes at each of the campuses to address climate change.

The planning for *Go Beyond* emerged at a pivotal moment, when the provincial government in British Columbia (BC) mandated that all public institutions, including universities and colleges, be climate neutral by 2010. As a result, the provincial Climate Change Secretariat and BC Hydro, the provincial utility, have committed to supporting the launch of the initiative financially on a short-term basis with the possibility of continued support in the future.

This particular approach of a student group, an NGO, a corporation, government, and a university coming together to work on a program is unique. While there are other types of multi-sectoral collaboration working on climate-related initiatives on campuses, it is rare for them to be student-led and created and to include so many different sectors of society.

3.7 Staff/Faculty-Focused Program

It is much more common for staff or faculty to run a program that students participate in than to find the opposite scenario, and there was only one example found of this type of initiative. It is the Sustainable Ambassadors program at Concordia University, in which staff and faculty commit to leading by example in terms of reducing consumption in their own offices and daily lives. In this program, students conduct office audits and identify key areas of potential improvement with the office staff. The goal is for students to work to educate the faculty and staff at Concordia on how they can contribute to institutionalizing sustainability and work towards integrating this component into the structure of how their offices function. The student coordinators also organize workshops or conversations about how the staff and faculty can contribute to making their campus more sustainable. The sustainability movement at Concordia is mostly student-led, and this program attempts to engage staff and faculty as well. The Ambassadors program addresses energy in the workplace as well as waste and other sustainability issues.

According to the Sustainable Concordia website:

In becoming an Ambassador, you commit to: make every attempt to lead by example; endeavouring to understand the consequences of your actions; rethink personal behaviours that lead to wasteful consumption patterns and work to reduce them; engage in activities that build a sustainable campus and community; and encourage friends and colleagues to do the same.

(Sustainable Concordia, 2008)

Although the Sustainable Ambassadors program only had 12 participants in the 2007/2008 academic year, this is expected to increase in the future as the program becomes more established. Sustainable Concordia is a well-respected and supported student-run organization and, as such, can anticipate a greater level of success with this type of initiative than might be anticipated in less formal student groups.

3.8 Policy development

One of the priorities of students working on campus sustainability initiatives is to ensure that the initiative will continue after they have left the campus, and policy development is seen as an excellent way to make this happen. Whether the policy is at the student union/association or administrative level, developing a policy usually requires a multi-stakeholder approach to get the support needed for the policy to successfully be put into place and implemented.

The PaperCut campaign which started in 2006 in the Atlantic region of Canada is an example of a student-led policy campaign, with the goal of all the Atlantic campuses purchasing 100% post-consumer recycled paper and instituting a paper use reduction policy. As of April 2008, there have been a number of successes coming from this campaign – including the University of Prince Edward Island becoming the first campus in the Atlantic region to switch to purchasing 100% post-consumer recycled paper. The Sustainability Coordinator at Dalhousie University is drafting a university-wide paper purchasing policy as part of an overall sustainability policy, and the administration at Memorial University began implementing campus-wide paper use reduction strategies in the fall of 2007 and hired a student PaperCut Coordinator to lead outreach for the campaign.

Other types of policy campaigns include those to institute a U Pass to make public transit more financially accessible for students, and campaigns related to purchasing energy offsets.

4.0 Roles

The types of student-led initiatives on campuses vary substantially and can be undertaken in many different ways. Students play a variety of roles in these initiatives, including:

- Becoming leaders or volunteers in an on-campus club;
- Coordinating or participating in a multi-stakeholder committee;
- Engaging their student union or association and/or being a leader within it;
- Initiating campus climate-related coursework with a faculty member;
- Working with an administrative or student union sustainability office or lobbying to create such an office; and

- Creating and undertaking a work-study position.

These different roles can overlap and provide new opportunities – for example, a student could meet a supportive faculty member through a multi-stakeholder committee, and then take on an assessment of the campus as an independent study in coursework supervised by that faculty member.

In addition to students creating their own on-campus roles, faculty, staff and administrators have an important role in creating opportunities for students and in supporting student-led initiatives. These more permanent members of the campus community can provide an essential function in institutionalizing the student-led initiative so that it will survive ongoing student turnover.

5.0 Discussion

The cases presented in this article vary in the ways in which youth are engaged and the degree to which youth are involved in decision-making. The cases have been categorized into three types of youth engagement: socialization, influence, and power (Gauthier, 2003), in Table 2.

Table 2: Levels of youth engagement in student-led climate initiatives

Level of youth engagement	Type of initiative	Example an initiative, including the role of students
Socialization	Awareness-raising	Student-run information campaign coordinated within a campus club
	Assessments	Assessment instigated by students but integrated into coursework or an ongoing faculty-supervised work-study position
	Residence challenges	Students are exposed to new behaviours through an information campaign in residences and through peer-to-peer learning
Influence	Assessments	Student association is coordinating the assessment, implementing changes within the student association to exert pressure on the administration to do the same
	Residence challenges	Student group coordinating a residence challenge pressures Facilities Management to install energy metering on each residence
	Retrofits/energy production	Retrofit is undertaken by an energy task force with 1-2 students participating on behalf of the group and influencing what is conducted
	Policy development	University administration is developing an energy policy and consults the student association
Power	Assessments	Assessment is run through a well-established student club with a multi-stakeholder committee providing consultation
	Sustainability funds	Fund is jointly administered by the student association and the university administration, with both the students and administration contributing to the fund
	Retrofits / energy production	Wind turbine or solar array initiated, funded and installed on campus by students with a partnership with Facilities Management, a department and/or a course to provide ongoing monitoring, and maintenance.
	Multi-sectoral or multi-stakeholder collaboration	Decision-making power shared equally between student-led groups and administrative groups in a coalition
	Policy development	Policy is developed by a multi-stakeholder decision-making body with equal student and administrative representation

Gauthier's (2003) levels of youth engagement proved to be useful in assessing student-led climate change initiatives. Several of the initiatives fell into multiple categories, demonstrating the variety of ways in which the initiative can be implemented on a campus. The types of initiatives with higher levels of youth engagement tended to be those that were more institutionalized within the campus or required a higher level of administration, such as sustainability funds and policy development, whereas those with lower levels did not necessarily require the support of many on-campus stakeholders, required less knowledge, or were shorter-term initiatives. The initiatives at a lower level of engagement also allowed larger numbers of participants. Typically an individual student leader will move up this ladder from being socialized to leading socialization initiatives to influencing decisions, to (if the opportunities exist) being a partner in decision-making.

The staff/faculty-focused program was the one type of initiative that was not able to be categorized within these levels since it is a unique case of a youth-run program directed at non-youth so it does not have the characteristics of an 'influence' relationship, where youth are playing an advisory, representative, or protest role, or a 'power' relationship, where there is an equal partnership between the youth and adults in decision-making. Instead the students have all the decision-making power.

In comparing the empirical findings to the principles of youth development in social issues (Ginwright and James, 2002), it was found that some of the principles applied to student-led climate initiatives and some did not. The types of initiatives that had a lower level of youth participation in decision-making tended to apply to different principles than those that had a higher level of participation. For example, a student group running an awareness campaign may be following the fourth and fifth principles of encouraging collective action and embracing youth culture, whereas participation in developing an energy policy may follow the principles of analyzing power in social relationships and promoting systemic social change. None of the initiatives were found to be making identity central beyond the 'youth' identity, which was more present in initiatives with a higher level of participation in decision-making and therefore exposure to and analysis of institutional hierarchy. This may be a result of the initiatives being focused on an external challenge, climate change, rather than an internalized oppression, such as racism or sexism.

Lessons Learned

Lessons for student leaders:

- Take action to address climate change through campus initiatives
- Learn from experiences at other campuses working to address climate change
- Analyse stakeholder relationships on campuses to determine what is the most strategic approach to accomplish your goals
- Create partnerships with other campus stakeholders who are more permanent members of the campus community or who have specific expertise (this will help institutionalize your initiative and give you more 'power' to achieve your goals).

Lessons for other campus stakeholders:

- Socializing students to engage is the first step to creating behavioural change
- Provide and encourage leadership opportunities for students to further engage in campus climate initiatives; Analyse current activities to determine where students could contribute
- Support student leaders in navigating the complex power relationships within universities and colleges

6.0 Conclusion

This overview of student-led climate initiatives on community college and university campuses in Canada addresses the eight different types of initiatives, the variety of roles students have played in these initiatives, and the lessons that can be learned about campus-based youth engagement on climate change. Within the model proposed by Gauthier (2003), socialization was found to be necessary to expose more students and young people to the impacts of climate change and the ways in which they can take action. Peer-to-peer awareness-raising is known to work well on campuses and within groups of young people. The best option for engaging youth leaders in creating climate solutions on campuses is a

shared power relationship, as it is the students who will be implementing many of the initiatives in residences and in their student union, for example. While an influence relationship is a situation in which many student groups find themselves, it may not be the most strategic in terms of engaging youth, developing leaders, or ensuring action is taken on climate change. It does not result in a greater understanding within the broader student population of how to personally take action on climate change. In addition, it does not engage youth leaders on an equal footing with other campus stakeholders, so leadership development and buy-in from students will be lower than in a power relationship, and the uptake of student ideas (or understanding why student ideas were not adopted) is likely lower than in the power relationship.

While some of the Ginwright and James (2002) principles of youth engagement applied to certain types of initiatives, they were found to not be entirely applicable to the scenario of young people taking action on climate change on campuses. A possible reason for this is that, unlike many other social issues, the impacts of climate change are not clearly visible in a campus setting, and are not as personal. While the impacts are felt more harshly by certain demographics of people, this is less obvious on a campus than, for example, discrimination against women or people of colour. Even without the 'identity' principle, however, youth approaches to creating change on campus were found to have some of the unique features, thereby reinforcing the need to uniquely consider the engagement of this demographic.

History shows that as student-led initiatives become institutionalized, the topic of the initiatives shifts to what requires the most support. Ten years ago, students were conducting waste audits and instituting recycling programs. In more recent years, with waste management programs well-developed at most campuses across Canada, there is less of a need for students to focus on these types of initiatives and so the effort has shifted to greenhouse gas inventories and climate action plans. As these initiatives become more and more common and are undertaken by administrative sustainability offices or mandated by government, the focus of students will likely shift again. In the short term, there is much to be learned from the innovative climate solutions with which student leaders experiment. Student-led campus climate initiatives is an area that warrants further research; a specific project could include an analysis of which initiatives are most effective in transitioning society to carbon neutrality in both the short and long term. It may not be an obvious answer, as socializing large numbers of young people to create behavioural changes may turn out to have more long term impact than installing energy efficient technology.

Whether in an awareness-raising campaign or the development of an on-campus policy, students are key stakeholders on campuses and have a unique perspective to contribute to any dialogue around campus climate solutions. They also have the potential to create their own initiatives to educate peers on behavioral change or implement mechanisms to reduce GHG emissions. Implementation of many of the campus-wide initiatives is dependent on student buy-in, and there are many opportunities for students to develop leadership skills within the campus setting as a result of a high level of involvement in creating solutions to climate change. In both the short and long-term, the transition to a low carbon society will benefit if students are given the opportunity and space to engage in climate change initiatives on campuses, and are supported in their efforts to navigate the complex university system and institutionalize solutions in relatively short windows of time. In addition, most of the initiatives outlined here can be replicated elsewhere, thereby providing a starting point for students wanting to begin an initiative or providing ideas for other campus stakeholders wanting to engage students in initiatives.

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Biographies

Anjali Helferty

Anjali is a graduate of Queen's University with a BScH in Environmental Chemistry. She was involved with the Sierra Youth Coalition for over three years before starting the position of National Sustainable Campuses Coordinator in summer 2006. She also worked full-time in student government at Queen's University as Social Issues Commissioner in 2004-2005. She was profiled in the 2007 'Green Issue' of Vanity Fair along with other young people running the Campus Climate Challenge, and most recently featured in Alternatives Journal. She was a founding member of the Canadian Youth Climate Coalition, and is particularly enthusiastic about integrating social and human rights issues into the environmental movement.

Amelia Clarke

Amelia Clarke is a PhD Candidate in Strategy at the Desautels Faculty of Management at McGill University, and is also the Past President of the Sierra Club Canada. She has taught in the School of the Environment at McGill University and the Faculty of Management at Dalhousie University. Her research interests include: sustainable development strategies, campus environmental management, collaborative strategic management, and cross-sector partnerships. Amelia past experiences also include being a Research Fellow at the Aspen Institute (2007), a member of the federal government's National Advisory Committee to the U.N. Habitat's World Urban Forum III (2006), and an advisor on the Canadian delegation during the United Nations World Summit on Sustainable Development (Johannesburg) negotiations (2002). Perhaps best known for founding and being the first National Director of the Sierra Youth Coalition, she is proud of having launched their climate change campaign in 1997 and their Sustainable Campuses program in 1998. Amelia has been working on environment and sustainability issues since 1989, and was recently recognized as one of 50 Canadian environmental leaders in the spring 2008 issue of the magazine Green Living.