COMMUNICATING CLIMATE CHANGE IN POST-SECONDARY INSTITUTIONS

Introduction

Climate change is a global problem that requires an inspiring and informative message that resonates with people and allows them to understand the complexities of our changing world.

As there is no single climate change message that resonates with all audiences, we must take care in understanding how to grab the attention of, and effectively communicate with, each unique audience. This is no easy task. Each person's individual experiences, mental and cultural models, underlying values, and worldviews shape how they respond to climate change communication[1].

The information within this document will provide a basic understanding of climate change communication in order to guide you through the creation of effective climate-related messaging.

The information and guiding principles have been adapted from "The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public"[2].

Principle 1: Get to Know Your Audience

Within a post-secondary institution there are several potential audiences: Senior Leadership, faculty, staff, the local community, and students. To ensure your messaging resonates with each particular audience, it is important to understand their motivations and interests.

Consider the following information about a target audience before creating your messaging[3]:

- Who are they? What is important to them?
- What do they currently understand or misunderstand about climate change?
- What risks surrounding climate change concern them?
- What are their values and attitudes towards climate change[4]?

To gather and understand this information you should complete outreach to help take away guesswork; this can be in the form of a survey, face-to-face conversations, outreach booths at large events etc. This due diligence will provide an understanding of how climate change will influence the daily life of the audience. Visit the document "Climate Change in Canada and Ontario" to learn more.

People are generally skeptical to new information that challenges their established viewpoint, especially a sensitive subject such as climate change. To help shape your desired communication outcomes, you must first determine specific desired changes that would result from climate change education (climate change education can be defined as "intended to reduce greenhouse gas emissions and help your community adapt to climate change in an environmentally sound manner"[5]).

By creating specific outcomes for you, communication can allow for more effective planning of outreach and evaluation.

Consider the following three types of outcomes when creating your communication pieces. What would be the best outcome for each particular message?

- **Individual Outcomes**: improved understanding of an aspect of climate change, attitude change, behaviour change. Example: percent reduction of greenhouse gas emissions associated with landfills by proper care of personal trash including composting organic waste and recycling paper, cardboard, bottles and cans.
- **Community Outcomes**: collective action in tackling climate change. Example: percent reduction of carbon dioxide (CO_2) emissions by increased usage of car and bike share programs, as well as accessible and safe public transit.
- **Direct Environmental Outcomes**: direct reduction of greenhouse gas emissions, added renewable energy sources, and more. Example: Significantly conserve college energy usage by switching to energy efficient Halogen incandescent bulbs, compact fluorescent lights (CFLs), and/or light-emitting diode bulbs (LEDs).

Without first defining what success looks like, focusing the message will be difficult and future outreach will be less than efficient.

Principle 2: Grab the Audience's Attention

By framing the audience's message properly, you will provide a relevant context for understanding the message. The table below provides examples of how climate change communication can be framed for effectiveness.

Frame	Example
Global Impacts	• A primary method used by the media as climate change impacts become increasingly tangible, predictions continue to become more accurate, and the strain of climate change on daily life and necessities becomes more real. • Example: "Climate change could force over 140 million to migrate within countries by 2050"[6].
Local Impacts	• Addressing climate change in ways that the audience has actually seen, including wildfires, storms, droughts, and extreme heat advisory days. • Example: "42 forest fires burning in Ontario, with 19 of them out of control"[7].
Science Based	• Certain audiences may be the most impacted by messaging that communicates scientific facts. • Example: "Data from the Ontario Ministry of Environment and Climate Change project an average annual temperature increase of 3.6°C versus the 1990s"[8].
Human-Impacts Based	• Communicating a message in a way that focuses on specifically how humans will be impacted, either now or in the future. • Example: "While everyone around the world feels the effects of climate change, people living in the world's poorest countries — like Haiti and Timor-Leste — are the most vulnerable. Increasingly unpredictable weather patterns, shifting seasons, and natural disasters disproportionately threaten these populations, increasing their risk and their dependency on humanitarian aid"[9].

Individual Solutions	• Working to empower the individual by providing small solutions that can be incorporated into daily lives and practices. • Example: "Good composting practices minimize greenhouse gas emissions"[10].
Collective Solutions	• Identifying solutions and actions that are working globally or locally. • Framing communication around collective, united actions may feel more appropriate and empowering given the scale of climate change. • Community level solutions may also provide the audience with a sense of hope, as tackling climate change is seen as a collective worldwide issue. • Example: "The Province of Ontario, Canada, is the first jurisdiction with a significant reliance on coal in North America to eliminate all coal-fired electricity"[11].
Self-Efficacy and Hope	• Self-efficacy, or the ability of an individual to believe they can complete an action or task, is a "foundation for [environmental] action" because it "contributes to a sense of self-worth and resolve necessary to set and reach challenging goals"[12]. • Hope involves not only the expectancy that you can meet a goal but the ways to achieve the goal. • Building messages around hope and self-efficacy enhances the likelihood of audiences acting. • People feel a greater sense of self-efficacy and believe their actions will decrease climate change impacts if they receive messages that frame climate change in terms of what they gain from action versus what they lose from inaction (e.g., "If we act, we can mitigate climate change impacts," versus "if we don't act, we won't be able to mitigate change impacts."). In short, more positive statements may promote self-efficacy. • Example: "Worried your actions won't matter? They will. And rather than being mired in fear and helplessness, you'll spend your life anchored in a wonderful community, working with friends and neighbours, learning from those on the front lines of the climate movement, and holding up the idea that we have a fighting chance against this threat"[13].
Values	• Framing communication around values can provide a shortcut for audiences as they judge whether information matters to them. • Altruistic values, focusing on welfare of others, can be strong motivators for climate action. • Example: honesty can be applied in messaging by communicating that science does not have all the answers, but that the scientific community is continuing to work towards improved accuracy in predictions[14].
Logical	• Create messaging around the viewpoint that humans are responsible for anthropogenic climate change, so something should be done about it. • Example: "Most climate scientists agree the main cause of the current global warming trend is human expansion of the greenhouse effect"[15]

Emotional	• Communication that appeals to the emotionally vulnerable side of individuals.
	• Example: "A combination of climate change and rising levels of inequality is a key driver of risk in the world today, and the convergence of these two factors calls for heightened attention as they pose an existential threat to the survival of the poor, especially those living in climate risk zones".[16]
Economic	• Targeting the audience by outlining the economic impacts of climate change.
	• Example communication: "World's worst climate change-induced disasters cost £50bn in 2018"[17] or "in Ontario, climate change is fuelling the wind power industry"[18]. Keep in mind there are both positives and negatives regarding the impacts of climate change.

Adapted from "Communicating Climate Change: A Guide for Educators"[19] and "What is Message Framing?"[20]

Principle 3: Translate Scientific Data into Experience

The majority of the time efforts focused on climate change communication and advocacy focus on the necessity of a stable climate to support human life using scientific information. Usually this is communicated with rehashing of the crisis mode messaging and that immediate action is critical for future survival. This pervasive "sky is falling" messaging has created misconceptions surrounding feasible solutions to climate change, as problems are rarely followed up by supporting solutions.

Unfortunately, this type of messaging has not worked particularly well[21], even though belief in climate change continues to grow. Taking action remains a low priority for most people. Research has shown that the part of the brain that controls emotional response is a stronger motivator for action than the part of our brain that processes scientific information. Somehow, even with this information available, most climate change messaging remains science focused[22]. Personal and anecdotal accounts of negative climate change experiences could easily outweigh statistical evidence but are rarely used[23].

Principle 4: Address Scientific and Climate Uncertainties

Uncertainty can be uncomfortable for people, and change against the norm can be overwhelming. Climate scientists can only make predictions based on the best information available. This is not a unique concept within science, nor is it an excuse for inaction. Unfortunately, the uncertainty surrounding climate science makes it seem as though scientists are confused about the human impact on climate change, and this is not true[24]. Addressing any uncertainties is best completed in a group setting where discussions can happen, including sharing personal experiences.

Principle 5: Encourage Participation

Communication and discussion provides time to brainstorm, identify and implement common goals. This also empowers people while building relationships, which can be key for future information sharing and decision-making. People who feel like they are part of the decision process are more likely to support the outcome[25].

Principle 6: Make Behaviour Change Easier

In a post-secondary setting, incentivizing is an important factor in behaviour change. This can be especially true for climate change related behaviour shifts that may go against the old 'business as usual' thinking. A behaviour change can be made easier by making the 'default option' a more responsible one. If the behaviour change is inconvenient or undesired, it will be difficult to achieve; but if the new default option is more convenient or goes unnoticed, then progress is easier. For example, when looking to reduce the use of virgin paper consumption, setting the printer default to double sided (instead of single sided) means effort must be made to switch back to single sided.

Potential Challenges

- Gathering information changes frequently depending on the audience.
- There are multiple ways that each audience accesses information.
- Increased cultural diversity can lead to challenges in understanding a new target audience.
- Building up the confidence of those who do not have a background in communications.
- Behaviour changes can be hard to instill, especially for people who hold fast to business as usual.

Climate Change Communication Recommendations

- Create communication outcomes that align with the department/offices/ institutions strengths[26].
- Messages should be positive and include actionable, realistic solutions that can be implemented or supported by the audience. Without practical solutions, the message may be lost.
- Use real stories and situations to build compassion.
- To improve effectiveness, the messages need to come from someone the audience trusts.
- Motivating action requires finding ways to make people feel like what they do matters[27].
- The scale of a solution needs to match the scale of the messaging; communicating local impacts should be supplemented with local solutions. If the message and action do not match, the audiences "response efficacy" is reduced.
- Framing solutions are as important as framing the dangers of climate change.
- Communicate in ways that connect and build consensus rather than divide[28]. For example, the statement "97% of scientist believe that climate change is man made" could also be phrased as "3% of scientists do not believe climate change is man made". These statements are two different ways of presenting the same information, but they emphasize two very different items; the first is consensus, the latter contention[29].
- Use communication and messaging to build relationships with your audiences, as well as working to support relationships between audiences. Social relationships are powerful because of their potential to transform the motivations, interests, and capacities that people need for action[30].
- Frame climate change messaging around the interests of the audience. For example, educators who trained foresters have used messaging around how climate change will impact forest health in their region, thus focusing on local impacts in an area that matters to the audience.

- Allow your audience the chance to recount personal experiences to generate an emotional response.

- Construct messaging with images. In the context of climate change, before and after images are especially powerful. Research suggests that using images from the past and comparing to present images is more powerful than a comparison image of the present to future impacts, as the former represents actual changes that have occurred.

- Keep the message simple: Use concrete language, as people are more likely to trust findings when reported in a clear an accessible way.

- People have a natural tendency to avoid losses rather than to seek gains. They tend to discount future gains more than future losses, meaning that audiences are more likely to make changes to their behaviour if climate change information is framed as "losing a little bit now instead of losing much more in the future."[31]

- In general, proper messaging creates a personal connection and a desire to fulfill an action, without the audience feeling overwhelmed by the scale of the problem.

Continued Learning

For more information on communicating climate change, please see the following resources:

- Yale's Program on Climate Change Communication conducts research on climate change knowledge, attitudes, policy, and behaviour.

- George Mason University Centre for Climate Change Communication conducts and applies climate change communication research to improve public engagement, provide training, and knowledge surrounding climate change.

- This document released from the Intergovernmental Panel on Climate Change (IPCC) outlines tactics for climate change communication and engagement.

- The Psychology of Climate Change Communication expands upon key takeaways from the document to provide additional information regarding climate change psychology.

Conclusion

Communicating climate change is a challenging yet worthwhile cause. It is important to have a clear understanding of each audience and how they make decisions. Make sure to position any barriers as opportunities to improve how information is communicated and presented. Promote continual learning and don't give up; people are interested in the subject. Hopefully this document has helped expand your understanding of climate change communication and helps to instill confidence in your ability to make positive changes at your post secondary institution.

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