COOL TOOLS FOR A WARMING WORLD

October 2016 Symposium and Workshops

A Vice President Research Cluster of Excellence

SOCIAL MOBILIZATION FOR CLIMATE CHANGE USING DIGITAL MEDIA

UBC's Research Cluster on "Social Mobilization for Climate Change using Digital Media" includes scholars and practitioners in climate change communication, education, psychology, and environmental planning. We focus on scaling up climate action through citizen engagement and youth education with powerful digital tools. Timing is critical as jurisdictions in Canada and beyond develop climate action plans to meet their Paris Agreement commitments and accelerate the transition to a low-carbon economy; this will require wider public support and active engagement. In October 2016, the Research Cluster convened a series of knowledge exchange events that brought together government, industry leaders, NGOs, educators and researchers to strategize on fostering climate change literacy and action. These events showcased a broad range of innovative digital tools, gaming, and visualization media, and shared the latest research results, success stories, and best practices from mobilizing communities on energy and climate change.

The first event was the **Symposium: 'Cool Tools for a Warming World',** with keynote speakers Jonathan Wilkinson (M.P., Parliamentary Secretary to the Federal Minister of Environment and Climate Change) and Joyce Murray (M.P., Parliamentary Secretary to the President of the Treasury Board). The symposium was followed by a **Public Seminar** hosted by the Pacific Institute for Climate Solutions, and a full-day **Workshop: 'Climate Change, Digital Tools and Schools',** with keynote speaker Susan Gold, founder of the annual Global Game Jam. More than 100 local, national and international researchers, stakeholders, and practitioners collaborated to develop top research priorities, new partnerships, and recommendations to government and educators. **Key findings and priorities** included:

- Evidence shows that engaging citizens collectively on positive climate change action (eg. home energy retrofits, cutting carbon footprints, caring for street trees), through place-based, community-led, fun social processes, can be highly effective, especially if backed-up by government support. Examples include competitions, crowd-sourcing, neighbourhood visioning, & sharing ideas on social media.
- Digital tools (such as virtual reality low-carbon futures, thermal imaging of heat loss, interactive online mapping) which are experiential, visually compelling, memorable, and tell meaningful local stories, can stimulate dialogue, shift attitudes and lead to action on the ground.
- In educational settings, interactive media such as place-based videogames can be effective and fun learning tools on serious subjects, but must be easy-to-use and adapt, with clear learning objectives and outcomes.
- Teachers need support resources to apply such new tools, but currently lack a structured curriculum on climate change and guidance materials like toolkits or handbooks.
- We need to scale-up and operationalize effective digital tools & social practices in communities and schools across Canada, to prepare citizens of today & tomorrow for climate change and the energy transition.
- Canada needs a **national, evidence-based Social Mobilization Strategy** that embraces grassroots groups (eg. students, neighbourhoods, local businesses) in building resilience and meeting our targets.
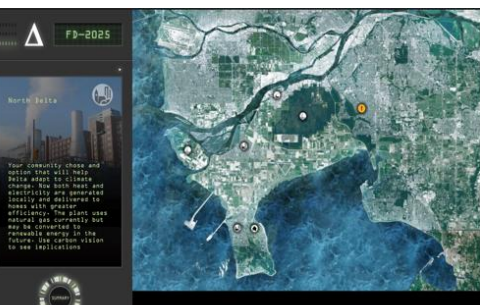
The events also identified key **Research Gaps**:

- How effective are **emerging technologies** such as augmented reality, mixed reality, & citizen science in helping reduce carbon emissions and future vulnerabilities?
- How can compelling climate change content **go viral** 'beyond the choir' to the general public?
- How might whole communities be engaged through a 'ripple effect' from school children's activities?
- How do we mainstream effective digital tools and climate change /green energy curriculum into schools?

The research cluster is addressing these gaps with our partners by co-developing and testing new prototypes for wider use in communities. Cluster activities completed or underway since the Symposium include:

- Developing a locally replicable videogame prototype with Masters of Digital Media students at Centre for Digital Media.
- Submitting a Social Sciences and Humanities Research Council (SSHRC) P Development Grant on "Scaling-up Social Mobilization on Climate Change with Digital Tools."
- Submitting application for thermal imaging research with City of Vancouver to Environment Canada EcoAction Community Program.

- Exploring immersive, mixed reality educational experiences with tech partners.
- Sponsoring the first student organized "BC Game Jam", in collaboration with BCIT and SFU student clubs to host 48 hours of game design for over 300 students, including a competition to design a new game for the Climate Change Challenge.
- Contributing to Sustainable Canada Dialogues (SCD) report on Canada's Low-Carbon Energy Transition for Natural Resources Canada, to launch a national dialogue on Canada's energy future.

Learn More:

Full details of members of the research cluster, other participants in the events, and a full report on symposium outcomes is available at cooltoolswarmworld.ubc.ca. The cluster is led by Dr. Stephen Sheppard, Dr. David Fracchia, Dr. Stephen Petrina and Dr. Jiaying Zhao.

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