



Final Report

August 2009

Changing Climates Educational Society

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Letter of thanks

On behalf of Changing Climates Educational Society, I would like to thank everyone who made the World Changing Careers symposium a success. Over two years in the making, the symposium was made possible due to the time, support, and belief shown by so many. I would like to thank Liza Ireland and Peter Collins, who not only gave their support tirelessly, but have been integral to the formation and development of the event. Many thanks to our volunteer organizing team: Laura Tozer, Career Fair and Personal Futures roundtable coordinator; Rebecca Hosker, educational partners coordinator and registration assistance; Annie Collins, delegate and workshop coordinator; Valerie Charbonneau, media relations and film director; Amber Church, speaker and logistics coordinator; and Tyler Kuhn, tech and AV coordinator. Thank you to Deb Oaks for a fantastic website and ongoing online presence.

I am very grateful to our Advisory Committee mentors for their guidance in developing World Changing Careers. This includes Ken Webster, John Robinson, John Wiebe, Mike Gerbis, Ann Dale, and Morag Carter. Thanks to Sheila Watt-Cloutier and Raffi Cavoukian for their support as Honourary Chairs.

World Changing Careers was made possible through the contributions of our generous sponsors, including the Government of Canada as our Platinum supporter, The Natural Step as a Gold Supporter, Industry Canada as our Silver supporter of the Cleantech and Energy Panel, and BC Hydro, the UBC Sustainability Office, the GLOBE Foundation, and Talisman Energy as Bronze supporters. Thanks to our Partner sponsors Vancity Credit Union, the Liu Institute for Global Issues, Bullfrog Power, Buff Canada, Career Trek, the UBC Bookstore, the Canadian Commission for UNESCO, the Delphi Group, and the Canadian Foundation for Innovation. Thanks to our Supporters the Fraser Basin Council, Sustainable Prosperity, and Ballard Power, and to our Media Sponsors BIV Media Group and the Employment Paper.

Building the capacity for World Changing Careers was aided by the in-kind support of numerous organizations. Thank you to the GLOBE Foundation, the International Institute for Sustainable Development, The Pierre Elliott Trudeau Foundation/ La Fondation Pierre Elliott Trudeau, Learning for a Sustainable Future, the Canadian Environmental Network, ECO Canada, Earth Day Canada, Youth in Motion, The Delphi Group, the Fraser Basin Council, the BC Council for International Cooperation, the BC Climate Exchange, and Tides Canada. An additional thank you to our educational partners The Canadian Association for Career Educators and Employers, Carleton University Career Development and Cooperative Education, and UBC Career Services.

Thank you to all our speakers and presenters for committing your time and expertise, and making World Changing Careers a unique and valuable event for all involved. Thanks to Patrizia Menton Photography for supplying our speakers with photographs as gifts. And last but not least, thank you to all of our delegates for participating in the symposium.

World Changing Careers was a landmark event that I believe will positively contribute to the emergence of a bright future by linking career path development with systemic change for sustainability. Once again, thank you to everyone for your time, support, and dedication.

Sincerely,



Alysia Garmulewicz

Director, World Changing Careers symposium

Changing Climates Educational Society

Introduction

The idea for the World Changing Careers symposium came out of a large and very common disconnect seen between the immensity of the challenges before us - the need to redesign our social and economic systems to work in concert with the Earth - and our perceived ability to change things. Our ability to 'take action' is so often reduced to changing our levels of personal consumption of materials and energy. But in changing the larger economic and social systems, we often feel powerless - especially as young people. World Changing Careers aimed to bridge this gap, connecting systems change to personal action through the design of career paths. For every day through our 'jobs' we can choose to perpetuate old systems, or invest in new ideas. As young people, we can either train ourselves in old ways of thought, or seek out the best new 'world changing' ideas to create new paths.

In 30 years, we need to design a low-carbon prosperous sustainable society. Luckily, this is the time-span of the working lives of our generation. Can you imagine if every young person going into the workforce was empowered to redefine their sector, industry, or organization? If every student used their career as an entry point into addressing the root causes of climate change? This is only possible if we connect with older generations, gaining wisdom from their experience and pioneering work.

This was what the World Changing Careers symposium was all about: vision, systems change, and intergenerational sharing, connected by the thread of our career paths. Our keynotes challenged us to question our deeply held assumptions, and paint visions of alternative futures. Our panels and career workshops explored new and exciting fields of work, and the skills needed to be a leader in them. Our career fair facilitated networks and idea sharing, and our green jobs dialogue explored opportunities to create jobs that can radically transform society.

Organization structure

The World Changing Careers symposium was organized by Changing Climates Educational Society, a not-for-profit registered in British Columbia. Alysia Garmulewicz was the main symposium coordinator, supported by an Advisory Committee and organizing team.

World Changing Careers organizing team

Alysia Garmulewicz, director
Liza Ireland, program support
Laura Tozer, Career Fair coordinator
Valerie Charbonneau, media and communications
Rebecca Hosker, educational partners outreach
Annie Collins, delegate coordinator
Amber Church, speaker logistics
Tyler Kuhn, on site tech support
Peter Collins, Treasurer
Deb Oaks, Web designer and online support, i-site2020.com

World Changing Careers Advisory Committee

John Wiebe, President and CEO, GLOBE Foundation
Mike Gerbis, President, The Delphi Group
Ann Dale, Canada Research Chair in Sustainable Community Development, Royal Roads University, Trudeau Fellow
John Robinson, Professor, Sustainable Development Research Initiative
Morag Carter, Climate Change Director, David Suzuki Foundation
Ken Webster, UK Educational Consultant

World Changing Careers Honourary Chairs

Sheila Watt-Cloutier, Inuit leader, 2007 Nobel Peace Prize nominee
Raffi Cavoukian, C.M., Singer, author, and founder of Child Honouring

Sponsors and Supporters

Platinum	
Gold	
Silver	
Bronze	
Partner	
Supporter	
Media Sponsors	

Supporting Organizations

- GLOBE Foundation
- International Institute for Sustainable Development
- The Pierre Elliott Trudeau Foundation/ La Fondation Pierre Elliott Trudeau
- Learning for a Sustainable Future
- Canadian Environmental Network
- ECO Canada
- Earth Day Canada
- Youth in Motion
- The Delphi Group
- Fraser Basin Council
- BC Council for International Cooperation
- BC Climate Exchange
- Tides Canada

Educational Partners:

- The Canadian Association for Career Educators and Employers
- Carleton University Career Development and Cooperative Education
- UBC Career Services

Communications

World Changing Careers was promoted through the following mediums. Every effort was made to make use of social marketing technologies with a low carbon footprint.

E-Dialogue on Green Jobs: The vision and ideas of World Changing Careers were discussed before the event in June on an online discussion forum, raising the profile of the event and expanding the audience. Special guests contributing to the dialogue were:

- Nadine Gudz, Manager of Sustainable Strategy, InterfaceFLOR
- Rodney McDonald, Director, Environmental Strategy, The Minto Group
- Art Hanson, Former President, International Institute for Sustainable Development
- Lenore Newman, Assistant Professor, Royal Roads University
- Ann Dale, Canada Research Chair, Sustainable Community Development, Royal Roads University
- Alysia Garmulewicz, Director, Changing Climates Educational Society

To view the transcript of the e-dialogue, please visit

http://www.crcresearch.org/files-crcresearch_v2/File/WorldChangingCareers.pdf

Email networks and online profiles: World Changing Careers was promoted through the networks of our supporting organizations (see above), including e-newsletters and website links.

Social networks: World Changing Careers was promoted through a facebook page and group, encouraging people to join and spread the word about the event. The symposium was also promoted through Twitter, gathering a following of over 400 followers.

Print: World Changing Careers was profiled in Business in Vancouver magazine and Business in Vancouver's *Employment Paper*. Business in Vancouver has an average weekly readership of 58,000 in the Greater Vancouver area targeting business leaders in the Lower Mainland. *Employment Paper* is distributed at more than 1,000 locations in Metro Vancouver. The World Changing Careers Career Fair had copies of both publications courtesy of BIV Media Group for symposium participants. Additionally, BIV Media Group sent an email notice about World Changing Careers to Green Space advertisers and the Top 100 Public and Private companies.

The Green Pages (www.thegreenpages.ca) covered the event extensively, and articles can be found at http://thegreenpages.ca/portal/bc/2009/07/green_job_search_in_a_carbon_economy.html

Online Profile

World Changing Careers gathered a large online following. During the month of July alone, www.worldchangingcareers.com had over 4,000 unique visitors. Post-event this following is still growing as more video and text content is posted.

- BC Hydro
- Ballard Power
- Nexterra Energy
- Lignol Innovations
- Ventures West
- ConocoPhillips
- Corporate Knights Magazine
- InterfaceFLOR Canada
- Vancity Capital
- Vancity Credit Union
- The Delphi Group
- Busby Perkins + Will
- Eco-Industrial Solutions
- HB Lanarc
- MaRS Discovery District
- McCarthy Tétraut
- MetroQuest
- Bullfrog Power
- Synapse Strategies

Participants

Intergenerational: World Changing Careers attracted 154 youth and 92 professional delegates over the period of July 23rd-27th (numbers varied depending on the session). 50 speakers also attended, in addition to 6 organizing team members, bringing the total number of participants to 302. Most youth were between the ages of 18-25, although in the true intergenerational spirit, we had participants range from 13 to 88 years old.

Sectoral representation: Participants also represented a wide range of professional sectors and interests. Speakers and delegates were present from the sectors of cleantech, renewable and traditional energy production and distribution, venture capital, law, business consultancy, city planning, architecture and design, manufacturing, banking and finance, communications, and social entrepreneurship. The following provides a sample of the companies involved:

Participants also came from the public sector, including municipal, provincial, and federal government representatives. These included Metro Vancouver, the BC Ministry of the Environment, Environment Canada, and Service Canada.

Delegates also represented NGOs and foundations including the International Institute for Sustainable Development, the GLOBE Foundation, the David Suzuki Foundation, the Clean Air Strategic Alliance, Pacific Permaculture, the Campus Climate Network, Go Beyond, One Earth, ECO Canada, and the BC Council for International Cooperation.

Educational institutions represented included Thompson River University, Simon Fraser University, the University of British Columbia, the University of Victoria, York University, the University of Ottawa, Carleton University, the University of Northern British Columbia, the British Columbia Institute for Technology, Queens University, McGill University, the University of Alberta, Dalhousie University, the University of Hawaii, and Antioch University.

Other organizations of note with delegates in attendance included the Canadian Labour Congress, the Public Policy Institute, the Pacific Institute for Climate Solutions, and the Canadian Commission for UNESCO.

Geographical representation: Delegates participated in World Changing Careers from Ontario, Quebec, Manitoba, Saskatchewan, Alberta, the Yukon, and British Columbia. International delegates joined us from the Philippines, Israel, Wales, and the United States.

Changing Climates Educational Society sponsored 41 students in attending and provided 7 full accommodation bur-saries. The Fraser Basin Council supported two delegates, Ballard Power supported one delegate, Carleton University Career Services supported one three delegates, Career Trek supported two delegates, and Sustainable Prosperity supported one delegate.

Venue

The World Changing Careers symposium was held at the University of British Columbia at three venues on campus:

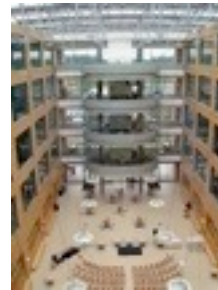
Forest Sciences Centre: All keynotes, career workshops, and panel discussions

Liu Institute for Global Studies: Green Jobs Dialogue

Life Sciences Centre West Atrium: Exhibition and Career Fair



Forest Sciences Centre Atrium (© Cindy Green)



Life Sciences West Atrium Liu Institute

The Forest Sciences centre allowed room for small workshops, larger panel discussions, and a central atrium for refreshment breaks. The Liu Institute provided the perfect venue for a roundtable dialogue, and the West Atrium of the Life Sciences Centre allowed open space for career fair booths. Accommodation was also reserved for participants on site at the University of British Columbia residences.

Greening initiatives

Changing Climates Educational Society made considerable efforts to reduce the environmental impact of World Changing Careers. Green electricity was provided by Bullfrog Power to run the event, and all symposium programs, signage, and folders were printed on 100% post-consumer paper with environmentally-friendly vegetable based inks (printed through En Masse Media). Delegates were asked to bring their own mugs for refreshment breaks, and compostable cups were available for those who did not bring their own. Delegate name tags and sponsor certificates of appreciation were printed on seeded paper that can be planted. Memory sticks given to delegates were made of bamboo and loaded with information on green jobs and systemic change for sustainability (supplied by many of our speakers) in order to circulate further information at low materials impact. The majority of our communication for promotion and correspondence was done by email thereby reducing our carbon footprint.

Program

DAY I - THURSDAY, JULY 23, 2009

8:00 - 8:45

Opening

Introduction and recognition of organizing team and sponsors. Alysia Garmulewicz, symposium organizer, will then introduce the story behind World Changing Careers, the goals it hopes to accomplish, and the philosophy of green jobs that guides the design of the symposium.

8:45 - 9:45

Dave Waldron, Synapse-

Strategies

Sustainability and transformational change

10:15 - 11:15

Nadine Gudz, Sustainability Coordinator, InterfaceFLOR Canada

The leading edge of business and sustainability, and the InterfaceFLOR model

11:30 - 12:00

Michael Kerford, Vice

President of ECO Canada

The growth of the green jobs sector

1:00 - 2:30

Green Jobs Dialogue Part I

Participants are invited to explore how the emerging green job sector can lead the transition to a sustainable society

Panel I: Law and governance

A panel addressing the big picture transformations needed in governance and law to lead the transition to a sustainable future, and the skills required to play a leading role.

- **James Meadowcroft**, Canada Research Chair in Governance for Sustainable Development,
- **Peter Dauvergne**, Canada Research Chair on Global Environmental Politics,
- **Lawrence Alexander**, lawyer in the Office of the Assistant Deputy Attorney General, and

an advisor to the BC Premier's Office

- **Toby Heaps**, Editor-in-chief, Corporate Knights Magazine (moderator)

Panel II: Cleantech and energy innovation

A panel discussing leadership and innovation in the cleantech and energy sector, and the opportunities for further growth and transformation.

- **John Sheridan**, President and CEO, Ballard Power
- **Ross MacLachlan**, President and CEO, Lignol Innovations
- **Jonathan Rhone**, President and CEO, Nexterra Energy
- **David Berkowitz**, General Partner and head of cleantech practice, Ventures West
- **Cheryl Slusarchuk**, Partner, McCarthy Tétrault (moderator)

Panel III: Business Leadership

A panel examining the trends in business leadership on sustainability, envisioning future transformation, and the opportunities to drive this change forward.

- **Lee Davis**, President and CEO, Vancity Capital
- **Donna LeClair**, Chief Technology Officer, BC Hydro
- **Nadine Gudz**, Manager, Sustainable Strategy, InterfaceFLOR Canada
- **Mike Gerbis**, President, the Delphi Group (moderator)

3:00 - 4:30

Green Jobs Dialogue Part II

Participants are invited to explore how the emerging green job sector can lead the transition to a sustainable society

Venture Capital for Cleantech development: Examining the trends in venture capital and job opportunities in the cleantech sector

David Berkowitz, General Partner and head of cleantech practice, Ventures West

Examining the trends in venture capital and job opportunities in the cleantech sector

Innovation in hydrogen fuel cell development

Caroline Andrewes, Cost Accounting, Daniel Ramrus, Senior Materials Engineer, and David Wardrop, Principal Engineer, Ballard Power Systems

The workshop will provide a look at the hydrogen fuel cell industry from the perspective of Ballard Power Systems. It will explore trends in both the company and the industries growth and evolution as well as the skills that will be needed in the future from a career development perspective.

Addressing the 'shadows of consumption'

Peter Dauvergne, Canada Research Chair on Global Environmental Politics, University of British Columbia

The purpose of my career workshop is to discuss ideas for how careers in governance and policy-making can redesign institutional structures and functions to address the 'shadows of consumption.' I will explain the role of individual actions in reducing personal consumption, but then stress the need to tackle these issues through careers that focus on systemic change to reach a global scale.

Legal innovation for a sustainable future

Lawrence Alexander, lawyer in the Office of the Assistant Deputy Attorney General, and an advisor to the BC Premier's Office, Cheryl Slusarchuk, Partner, McCarthy Tétrault, cleantech law specialist, and Rob Miller, Partner, McCarthy Tétrault, First Nations and natural resource issues

Hear from three lawyers enjoying legal careers related to sustainability. Topics: Law and natural resources, including renewable energy and First Nations law; law and technology, and in particular, the clean technology industry; and, innovation in legal services and careers in the public service. Common themes: personal career paths, multi-disciplinary problem-solving, and carbon offsets.

Green architecture and design

Chessa Adsit-Morris and Michael Driedger, Sustainability Research Advisors, Busby Perkins + Will

The design of all modern systems has proven to be our greatest challenge for tackling climate change and a more sustainable society. Often the role of architects, engineers, planners and other design professionals are placed into very small boxes (buildings and nothing else). Changes to a more sustainable world will require careful re-design of buildings, policies, products, cities and much more. The role of design and research professionals in this new society will be vital in establishing the success of future generations. This workshop will explore these non traditional aspects of design that are being taken on by architectural firms with dedicated research staff. The session will focus on the role of research and how it is one of the most important elements to sustainable design, and what types of careers are available or could be created.

Cellulosic Ethanol production

Mike Rushton, Chief Operating Officer, Lignol Innovations

The development of the cellulosic ethanol industry, and the transition to a clean energy economy.

4:00 - 5:30

Jim Hoggan, President, Hoggan and Associates

Communicating environmental sustainability

DAY 2 - FRIDAY, JULY 24, 2009

8:30 - 10:00

Liza Ireland, Consultant on education for sustainability, Changing Climates Educational Society

Envisioning Education for a Sustainable Future

10:30 - 12:00

Teryn Norris, Project Director at The Breakthrough Institute, Founder of the Breakthrough Generation, and successful advocate for the Obama administration adopting the Breakthrough Institute's energy education initiative

An Inspiring Truth: How Innovation Can Solve Global Warming and Remake the World.

1:30 - 3:00

Environmental Governance
James Meadowcroft, Canada Research Chair in Governance for Sustainable Development, Carleton University

The workshop focuses on the development of environmental governance over the past forty years. It explores the strengths and weakness of current arrangements for governing human interactions with the natural world. It will discuss the major challenges facing contemporary states, and emphasize the importance of politics and political processes in building coalitions for change.

Industrial Ecology

Emilie Oullett, Project Engineer, and Jaspal Marwah, Planning Analyst, Eco-Industrial Solutions

The workshop will introduce the concepts of industrial ecology, as well as provide a perspective on current trends, worldwide activity and Eco-Industrial Solutions Ltd.'s profile (people and projects). Through inspiring examples and interactive discussions participants will explore avenues to contribute to this emerging field in their own professional path and career choices. Eco-Industrial Solutions Ltd. is a planning and engineering consulting group that specializes in green industrial development and eco-industrial parks.

Redesigning food systems: the model of permaculture

Jesse Lemieux, founder, Pacific Permaculture

This workshop will examine the permaculture design system and demonstrate some of the effective

tools we all can use to redesign a sustainable food system and, consequently sustainable society, from the ground up. During these times of transition, it is critical that we all take an active role in design.

Creating a business culture of sustainability

Chris Weyell, Manager of the Asset Management and Planning Team, Wendy Avis, Project Manager, Environment & Sustainability Group, and James Grant, Project Manager, Environment & Sustainability Group, BC Hydro

This interactive session will highlight careers at BC Hydro and possible career paths students interested in Environment & Sustainability may take. Our "Build More, Buy More, Conserve More" concept will be discussed in relation to meeting the growing energy demand in BC. After a presentation component participants will be split into groups. In discussing our concept we should be able get participants thinking about all the different roles at BC Hydro that play a part in the company's approach to sustainability.

Business consulting for sustainability

Mike Gerbis, President of the Delphi Group

Environmental Business has become an economic driver for the global economy in the 21st century, as revenues surpass \$1 trillion annually. Over 250,000 people are now employed in Canada alone in this field. Corporate sustainability and climate change consultancy are two of the most challenging and rewarding professional fields. Careers in these subsectors offer significant opportunities for young people interested in solving some of the world's most challenging environmental and social issues, while building a solid career. This workshop will provide participants an overview of the emerging opportunities in these two fields, the drivers creating unprecedented demand for business and the skills and aptitudes necessary

Centre for Interactive Research on Sustainability (CIRS): green building design and community engagement

John Robinson, founder of CIRS, Professor at the University of British Columbia

John Robinson is currently directing research programs looking at the intersection of climate change mitigation, adaptation and sustainability; the use of visualization, modeling and citizen engagement to explore sustainable futures; sustainable buildings and urban design; creating private/public/NGO and research sector partnerships for sustainability; and generally the intersection of sustainability, social and technological change, behaviour change, and community engagement processes. Robinson will be presenting on the development of the Centre for Interactive Research on Sustainability (CIRS) as a model for green building and community engagement in sustainability.

Sense and Sustainability, Education for a low-carbon world: book launch of the North American edition and workshop on why education for sustainability needs to change
Ken Webster and Liza Ireland (co-authors), *Sense and Sustainability*

Despite our best efforts, most education around sustainability is essentially 'education for doing less harm'. It is strategically tragic. As a consequence it offers little for the aspirational educator or student. Sense and Sustainability brings together the arguments for revisioning education for sustainability around the opportunities for an enabling, low carbon, biomimetic and 'cradle to cradle' economy.

Workshop: Why education for sustainability is changing. The 5 big deal breakers in existing work and why it's no surprise that students are frustrated or apathetic.

How a consistent approach based on using living systems analogies opens up new or better avenues for enquiry. Why a systems approach gives a sense of where we are and the possibilities for the future. It's about closing loops and opening minds!

3:30 - 5:00

Raffi Cavoukian, Singer, author, and founder of Child Honouring

In a unique song and word presentation, Raffi will share his philosophy of Child Honouring - a children first-paradigm for humane and sustainable communities, a compassionate revolution in values.

DAY 3 - SATURDAY, JULY 25, 2009

9:00 - 10:30

George Lakoff, Cognitive linguist, author of *The Political Mind, how we can't understand 21st Century politics with an 18th Century brain*

Empathy and Sustainability: Why the Brain Matters

11:00 - 12:30

Envisioning the Future of School

Liza Ireland, Consultant on education for sustainability, Changing Climates Educational Society

This interactive workshop will look at the future of school for a sustainable world. It begins with revealing the hidden, underlying reductionist metaphors influencing our present school system and contrasting these with principles that govern sustainable living systems. With these ecological principles as a guiding framework, participants will help envision how schools can redesign their management, curriculum, buildings and grounds, and how teachers can help children learn in a way that encourages the development of a sustainable human society

that works in tune with the natural world. Administrators, teachers and students will all find practical ideas and inspiration to help implement lasting changes that will bring this vision about.

The Music Never Ends

Ken Webster, international Consultant on education for a low carbon world

Why money as debt has led to jobless growth and drives an unsustainable world

Online social networks and governance for sustainable development

♦ FSC 1222

Heather Creech, Director of Global Connectivity, International Institute for Sustainable Development

This workshop will explore the potential for online social networking to influence policy and governance for sustainable development. Are we moving towards more networked forms of governance? What are the implications of these changes for governments, for business, and for the individual citizen? Are there new career opportunities emerging in the realm of online policy and practice that can contribute to changing the world for the better?

Social Innovation

James Tansey, Director, Centre for Sustainability and Social Innovation, UBC Sauder School of Business

A new approach to creating innovation and ventures that contribute to solving existing social, cultural, economic, political, and environmental challenges. It encompasses concepts such as social enterprise, social finance, and strategic corporate social responsibility.

Business engagement with The Natural Step framework

Pong Leung, Principal Advisor, The Natural Step Canada

Pong works as Principal Advisor for The Natural Step (www.thenaturalstep.org), an international non-profit organization that operates at the intersection between sustainability, organizational learning, and leadership. Pong will provide a brief overview of The Natural Step and share how a typical business engagement looks like. The session is meant to be relaxed and focused on dialogue, so please come prepared to chat. People with an interest in working as change agents in organizations or consultants maybe interested in this session.

Sustainability planning

Peter Whitelaw, Planner, and Janine de la Salle, Food Systems Planner, HB Lanarc

This workshop will provide participants an overview of some of the key service areas and essential skills as practiced at a Vancouver-based private sector sustainability planning firm. A rapidly growing field, sustainability planning at HB Lanarc involves diverse professions and expertise areas including planning, landscape architecture, community engagement, sustainable buildings, renewable energy, greenhouse gas reduction, food systems, public policy, and information technology.

1:30 - 2:00

Lisa Torjman, Associate Social Entrepreneurship, Social Innovation Generation at the MaRS Discovery District

Making money while doing good: Social Entrepreneurship as a career option

2:00 - 2:30

Jamais Cascio, Environmental futurist and co-founder of WorldChanging.com

(Re)Making the world

2:30 - 5:00

Exhibition and Career Fair

Networking forum with leading organizations, businesses, and educational programs

DAY 4 - SUNDAY, JULY 26, 2009

9:00 - 10:30

Peter Victor, Ecological economist and author

Managing Without Growth: Slower by Design, not Disaster

11:00 - 12:30

Trevor Hancock
Public health consultant, BC Ministry of Healthy Living and Sport
"World-changing health careers"

1:30 - 3:00

Dave Biggs, Co-founder of MetroQuest

Experimenting with the future of policy decisions using an interactive MetroQuest scenario planning workshop

3:30 - 5:00

Personal futures: making sense of what's next for you
Facilitated by Nicole Boyer, Managing Director of Adaptive Edge, and Vanessa Timmer, Director of the One Earth Initiative

How do you take the insights from this conference and transform them into positive action? How do you *be the change* you want to see in the world? Lead by futurist and social entrepreneur Nicole-Anne Boyer, this session will explore these questions with delegates using The World Café, a peer-to-peer dialogue process that will surface the group's collective intelligence and create the conditions for new action going forward.

DAY 5 - MONDAY, JULY 27, 2009

9:00 - 10:30

Janine Benyus, author of *Biomimicry, Innovation Inspired by Nature*

What if students were taught to learn *from* the natural world instead of just *about* it? Biomimicry is a new design discipline that seeks sustainable solutions by asking, "What would nature do here?" By seeing nature as a source of wisdom rather than a source of good, biomimics are learning to grow ceramics like an oyster, harness energy like a leaf, farm like a prairie, cool buildings like a termite, and filter water like a marsh. Janine Benyus, author of *Biomimicry: Innovation Inspired by Nature*, will describe what's on the horizon and discuss the upwelling of career possibilities at the forefront of this innovative field.

10:30 - 11:30

Closing

Closing remarks, recognition, and thanks to all organizers, advisors, supporters, and sponsors. Sponsors will be presented with certificates of appreciation. The legacy initiatives of World Changing Careers will be introduced.

Keynote Speakers

Dave Biggs

Dave Biggs has been a pioneer in the development and use of computer simulation tools to engage stakeholders in discussions about sustainable futures since the term sustainable development was coined in 1987. As a Co-Founder of Envision, he helped to develop MetroQuest, which evolved out of over a decade of research at the Sustainable Development Research Institute at the University of British Columbia. MetroQuest is Sim-City-type software that can be customized to explore forty-year future scenarios for any region of the world.

Dave Waldron

David Waldron is interested in translating powerful concepts and process ideas – for an attractive, sustainable society – into real projects that ‘walk the talk.’ He has led initiatives for local communities, academia and business. In 2008 Dave has been working with the David Suzuki Foundation as the Director of Sustainability. He is currently leading the long-term strategic planning process that will guide the organization for the next 10 years. From 2003 to 2007, he led the design and delivery of a unique, international Master’s Program called “Strategic Leadership towards Sustainability” at the Blekinge Institute of Technology, Karlskrona, Sweden. This program, developed with Swedish pioneers of The Natural Step (TNS), combines a scientifically relevant understanding of sustainability with a systems approach to leadership development.

George Lakoff

For nearly 40 years, George Lakoff has been one of the world’s best-known linguists. Professor Lakoff is widely recognized for his research on metaphorical thought, the embodied mind, and the structure of language. But in recent years, his application of cognitive science and linguistics to politics has brought him to national attention. George Lakoff is the author of *The Political Mind*, *Moral Politics*, *Don’t Think of an Elephant!*, *Whose Freedom?*, and *Thinking Points* (with the Rockridge Institute staff). He is Richard and Rhoda Goldman Distinguished Professor of Cognitive Science and Linguistics at the University of California at Berkeley, and a founding senior fellow at the Rockridge Institute.

Jamais Cascio

Jamais Cascio writes about the intersection of emerging technologies, environmental dilemmas, and cultural transformation, specializing in the design and creation of plausible scenarios of the future. His work focuses on the importance of long-term, systemic thinking, emphasizing the power of openness, transparency and flexibility as catalysts for building a more resilient society. Cascio has worked in the field of scenario development for over a decade, and is currently a Research Affiliate at the Institute of the Future. He is co-founder of WorldChanging.com.

Janine Benyus

Janine Benyus is a natural sciences writer, innovation consultant, and author of six books, including her latest – *Biomimicry: Innovation Inspired by Nature*. In *Biomimicry*, she names an emerging discipline that seeks sustainable solutions by emulating nature’s designs and processes (e.g., solar cells that mimic leaves, agriculture that models a prairie, businesses that run like redwood forests). Since the book’s 1997 release, Janine has evolved the practice of biomimicry, consulting with sustainable business, academic, and government leaders, serving on the Eco-Dream Team at Interface, Inc., and conducting seminars about what we can learn from the genius that surrounds us.

Jim Hoggan

Beginning with his first press conference in 1972, Jim Hoggan founded and built Hoggan & Associates into one of the most successful public relations firms in Canada. Hoggan & Associates won one of the Public Relations Society of America’s highest honors, a Silver Anvil Award for Excellence in Crisis Communications for Business. Hoggan was awarded the Communications Leadership Award from the Canadian Public Relations Society (BC Chapter).

Lisa Torjman

Lisa Torjman joined MaRS to establish the social entrepreneurship program at MaRS that includes Social Innovation Generation (SiG@MaRS). This program provides social innovators and entrepreneurs access to resources to turn their ideas into positive outcomes for society.

Liza Ireland

Liza has over twenty-five years of experience in outdoor and environmental education, formal and non-formal education for all grade levels. After lecturing in Education for Sustainability at the University of New Brunswick, in Kazakhstan, and at the Teacher Training College in Bhutan, she founded an Independent school based on sustainability and holistic thinking in Scotland. Liza is now a Director of Changing Climates Educational Society and is consulting and writing on how to redesign education to help develop systemic, critical thinking for a sustainable society. She has recently co-authored the N. American edition of *Sense & Sustainability: Educating for a low carbon world*.

Michael Kerford

A graduate of McGill University, Michael Kerford has been with ECO Canada for ten years. In his current position as Vice President, Michael is responsible for ECO Canada's project and business development and the day-to-day management of ECO Canada staff. He played a lead role in the development of ECO Canada's website and applications such as the ECO Job Board and the CECAB (certification) assessment process, among other projects.

Nadine Gudz

As Manager of Sustainable Strategy, Nadine is responsible for strategically leveraging and expanding InterfaceFLOR's environment and sustainability leadership position in order to advance the company's Mission Zero™ vision through communication, education and training. Before joining InterfaceFLOR, Nadine worked locally and internationally in the non-profit and public sectors in the areas of environmental policy and community development.

Nicole-Anne Boyer

Nicole is a futurist and foresight specialist with a passion for creating "better futures." She believes our ability to think ahead is both a gift and a responsibility to use wisely and creatively. For 12 years, she has been on the forefront of futures thinking and social innovation, and is now managing director of Adaptive Edge LLC in San Francisco, CA. Nicole learned her unique tradecraft at Global Business Network (GBN), a pioneering think-tank in San Francisco. Her clients are leaders from Fortune 100 companies, governments, and civil society organizations.

Peter Victor

Peter Victor is an economist who has worked on environmental issues for over 30 years as an academic, consultant and public servant. He was the first economist to apply the physical law of the conservation of matter to the empirical analysis of a national economy and was one of the founders of the emerging discipline of ecological economics. His current research includes a systems analysis of the Canadian economy exploring the interplay of growth, employment, poverty and the environment. He is the author of *Managing Without Growth, Slower by Design, nor Disaster*.

Raffi Cavoukian

He is known to millions simply as Raffi: a renowned Canadian songwriter and performer, author and entrepreneur, once called "the most popular children's entertainer in the western world" (Washington Post). He is a keynote presenter, lecturing and networking to help create a viable future: a sustainable, child-friendly world for ourselves and for those to come. His original philosophy, Child Honouring, is gaining support among eminent thinkers as a holistic organizing principle for a culture of peace. With two honorary degrees, the Order of Canada, and the UN's Earth Achievement award, Raffi is a respected international figure, a global troubadour. He is a member of the Council of Human Development, and the Club of Budapest.

Teryn Norris

Teryn Norris is a leading young writer, researcher, and policy advocate. In 2007, he supported successful advocacy by the Breakthrough Institute to convince the Obama Campaign to adopt a \$150 billion clean energy investment platform. In 2008, Teryn founded Breakthrough Generation, the first young leaders initiative of the Breakthrough Institute, and he served as Associate Director of its Fellowship Program in summer 2008. Previously a Research Fellow at the Breakthrough Institute, he co-authored "Fast, Clean, & Cheap: Cutting Global Warming's Gordian Knot," a report published by the Harvard Law & Policy Review.

Trevor Hancock

Trevor Hancock, public health physician, health promotion consultant, and health futurist. Dr. Trevor Hancock is a public health physician and health promotion consultant. His main areas of interest are health promotion, healthy cities/communities, healthy public policy, environmental health, health policy and planning, and health futurism. Over the past 20 years he has worked as a consultant on these and related subjects with community organisations; local, state and national health care organisations; municipal, provincial, state and national governments, and the World Health Organization.

Workshop presenters

Caroline Andrewes, Cost Accounting, Ballard Power Systems
Cheryl Slusarchuk, Partner, McCarthy Tétrault
Chessa Adsit-Morris, Sustainability Research Advisor, Busby Perkins + Will
Chris Weyell, Manager of the Asset Management and Planning Team, BC Hydro
Daniel Ramrus, Senior Materials Engineer, Ballard Power Systems
David Berkowitz, General Partner and head of cleantech practice, Ventures West
David Wardrop, Principal Engineer, Ballard Power Systems
Donna LeClair, Chief Technology Officer, BC Hydro
Emilie Oullet, Project Engineer, Eco-Industrial Solutions
Mike Rushton, Chief Operating Officer, Lignol Innovations
Heather Creech, Director of Global Connectivity, International Institute for Sustainable Development
James Grant, Project Manager, Environment & Sustainability Group, BC Hydro
James Meadowcroft, Canada Research Chair in Governance for Sustainable Development
James Tansey, Director, Centre for Sustainability and Social Innovation, UBC Sauder School of Business
Janine De La Salle, Food Systems Planner, HB Lanarc
Jaspal Marwah, Planning Analyst, Eco-Industrial Solutions
Jesse Lemieux, founder, Pacific Permaculture
John Robinson, founder of CIRIS, Professor at the University of British Columbia
John Sheridan, President and CEO, Ballard Power Systems
Jonathan Rhone, President and CEO, Nexterra Energy
Ken Webster, international Consultant on education for a low carbon world
Lawrence Alexander, lawyer in the Office of the Assistant Deputy Attorney General, and an advisor to the BC Premier's Office
Lee Davis, President and CEO, Vancity Capital
Liza Ireland, Consultant on education for sustainability, Changing Climates Educational Society
Michael Driedger, Sustainability Research Advisors, Busby Perkins + Will
Mike Gerbis, President, the Delphi Group
Peter Dauvergne, Canada Research Chair on Global Environmental Politics
Peter Whitelaw, Planner, HB Lanarc
Pong Leung, Principal Advisor, The Natural Step Canada
Rob Miller, Partner, McCarthy Tétrault
Ross MacLachlan, President and CEO, Lignol Innovations
Toby Heaps, Editor-in-chief, Corporate Knights Magazine
Vanessa Timmer, Director of the One Earth Initiative
Wendy Avis, Project Manager, Environment & Sustainability Group, BC Hydro

Green Jobs Dialogue special guests

- Orion Irvine, Canadian Labour Congress
- Michael Kerford, Vice President, ECO Canada
- Christine Carter, BC Sales and Marketing Manager, Bullfrog Power
- Stephan Hockley, Director, Human Resources, Ballard Power
- Jennifer Allan, Project Manager, Clean Air Strategic Alliance (Alberta)
- Carolee Buckler, International Institute for Sustainable Development
- Morag Carter, Director, Climate Change Program, David Suzuki Foundation
- Jonathan Dignan, Public Policy Forum
- Sabina Russell, Manager, Accelerated Market Development, Ballard Power

Career Fair exhibitors

Booths represented a diversity of businesses, NGOs, student initiatives, and entrepreneurs. The Career Fair allowed delegates to network and learn from organizations showcasing best practices, resources, programs of study, job opportunities, and initiatives to join. Exhibitors present:

- ECO Canada
- Carleton University Career Services
- The NOW! Organization
- New Society Publishers
- Breakthrough Power
- Metro Vancouver
- Pivot Legal Society
- FUN Camps
- One Earth
- BC Council for International Cooperation
- Wendy Dion, entrepreneur
- Green Words
- Me to We (Free the Children)
- Solar BC
- Aerotek
- Light House Sustainable Building Centre
- AISEC SFU/UBC
- Power Shift Canada 2009
- The Zentrepreneurship Centre
- BC Institute of Technology
- UBC Sustainability Office
- William Yeung, entrepreneur
- Women in Leadership Foundation

Resources were also available at the Changing Climates Educational Society table including Business in Vancouver magazine, the Employment Paper, *Do The Right Thing* by Jim Hoggan, and Corporate Knights Magazine.

Budget

REVENUES	Cash	In-kind
Advisory committee and youth volunteers		\$14,000
Communications in-kind		\$2,000
Service Canada (HRSDC)	\$67,932	
Industry Canada	\$10,000	
Talisman Energy	\$5,000	
GLOBE Foundation	\$5,000	
UBC Sustainability Office	\$5,000	
UBC Bookstore	\$1,000	
Delphi Group	\$1,000	
Career Trek	\$1,000	
Vancity Credit Union	\$2,500	
Canadian Foundation for Innovation	\$1,000	
Canadian Commission for UNESCO	\$1,000	
BC Hydro	\$5,000	
Bullfrog power		\$600
Delegate fees (youth \$50, adult \$65/day)	\$13,557	
Career Fair booths	\$2,200	
Total each column	\$121,189	\$16,600
TOTAL REVENUES	\$137,789	

EXPENDITURES	Cash	In-kind
Coordination Salary	\$20,000	
Volunteers	\$2,700	\$14,000
Speaker fees	\$27,137	
Speaker expenses	\$16,467	
Workshop expenses and speaker gifts	\$2,736	
Delegate Bursaries	\$2,524	
Organizer expenses	\$5,081	
Venue	\$11,580	
Filming AV equipment	\$1,002	
Communications	\$199	\$2,000
Delegate packages	\$4,127	
Catering	\$6,427	
Website costs	\$11,074	
Carbon Neutrality		\$600
Insurance	\$500	
Ongoing initiatives	\$7,074	
Contingency	\$2,149	
Total each column	\$121,189	\$16,600
TOTAL EXPENSES	\$137,789	

Delegate Feedback and Impressions

“The World Changing Careers Conference illustrated that the societal modus operandi will indeed be very different when the current generation of youth enters the work place. I trust that we will make significant gains when this enthusiasm, ability and commitment is allowed to operate freely.” - *Youth Delegate*

“I think it gave people a good cross section of the many possible careers there are in the sustainability field.” - *World Changing Careers Presenter*

“The greatest strength was the quality of the keynote speakers and the variety of themes discussed in the talks. It was very satisfying to hear opinions from a private company, from an expert in communications and public relations, from activists and engineers, from innovators and researchers, all in the same forum!” - *Youth Delegate*

“The symposium proved invaluable to me since I not only learned about great ideas, but I was able to connect with individuals and organizations that are concerned with sustainability. More importantly, however, participating in this event helped me understand that there are a myriad of options to choose from when trying to start a world changing career” - *Youth Delegate*

“The quality of the sessions, overall design and discussion was of the highest quality I have seen at events like this.” - *Professional Delegate*

“I loved that the symposium laid out what areas of work the world needs done rather than focusing on the needs of the individual, as most traditional discussions around career development take. It truly gave me a sense of being part of a larger system, a system that has huge potential to become sustainable. What a relief to feel a real part of something positive that is growing instead of against something that is horrible.” - *Professional Delegate*

“It was refreshing to have our energy directed into how we can best apply ourselves to the world of work in the future instead of being told how we can use the world of work to promote ourselves.” - *Professional Delegate*

“It was an extremely valuable experience for myself but I am so happy for the younger students who were able to attend...For them to be exposed to such cutting edge ideas so early in their lives will be of tremendous benefit to them. I wonder had I been so exposed at that age if it would have saved me much bewilderment, frustration and stress.” - *Professional Delegate*

“The speakers were varied and interesting; it was a good mix of lectures, workshops, and exercises; there was a wide range of topics covered from very practical to academic.” - *Youth Delegate*

“As someone who is new to this area and who is in the beginning stages of a mid-life career change into this field the conference was the perfect introductory immersion into this world. I learned an immense amount and met some terrific people.” - *Professional Delegate*

“Overall, I would say that the best part of the experience --and the one that you deserve the most credit for because in a way it's the hardest thing to do-- is that it was INSPIRING.” - *Youth Delegate*

“There was a palpable and genuine feeling of empowerment and camaraderie...This is invaluable and the first real step in producing change” - *Youth Delegate*

"The caliber of speakers – exceptional! You have brought together some of the leading thinkers in this field." - *World Changing Careers Speaker*

"I thought the venue worked really well at the UBC campus: a good plenary/conference space in the Forestry Sciences building that had enough room for everyone, and a beautiful atrium where participants could get coffee/tea [really important!] and connect. The Liu Institute is also a beautiful building, so a perfect venue for this kind of event." - *Professional Delegate*

"I absolutely loved the systems approach to the whole conference: from you exploring what systems are and how they work, to having speakers echo these ideas and reveal how they apply them to their work. So few of us have any formal training in complexity and systems, therefore having such clear and informative sessions explaining systems and systemic approaches to sustainability was, I think, essential." - *Professional Delegate*

"There was a great balance between learning about jobs and potential career paths (through presentations and career workshops), and learning about sustainability and its many facets (transformational change; biomimicry; "Managing without growth"; "empathy and sustainability"; etc.)" - *Professional Delegate*

"The mix of students and business professionals was a great idea to share different viewpoints. The organization was terrific without a single hitch evident to the attendees." - *Professional Delegate*

"Amazing... definitely one to call "once in a lifetime." There has been no other conference/symposium that I have ever attended that even matches this one. WCC was superb in all aspects. The impact of the event will be seen all across the country." - *Professional Delegate*

I can confidently say I am much more educated and perhaps closer to what I think I want to do in the 'green movement'. I feel as if my dream green job is slowly looming before me; silhouetted so that I can't quite make it out, but unmistakably there. - *Youth Delegate*

"It was inter-generational, interdisciplinary, loaded with invaluable lessons and information and ideas, packed with useful resources, swarming with passionate, inspiring sustainability leaders, teeming with interesting stories and it seemed as if there were endless conversations to be had. The symposium could have easily stretched to another 2 weeks!" - *Youth Delegate*

"The major message that I brought home was that it is not necessarily important to be in a certain field or position to have the most benefit, but any area of work can become part of a transition into a sustainable human system if it is approached with certain ideas, the themes from the conference, in mind and to remember we are part of a system which is most effectively changed from anywhere inside." - *Professional Delegate*

Legacy and Ongoing Initiatives

The development and running of World Changing Careers has catalyzed considerable interest in carrying forward the theme of career paths for sustainability. Changing Climates Educational Society is currently exploring the development of the following initiatives:

Educational Career Package: Changing Climates Educational Society is pursuing opportunities to partner with key NGOs, government, and educational institutions to develop a web-based educational career package based on careers for sustainability for high schools and university career services.

Partner events: Changing Climates Educational Society is exploring partnerships with strategic organizations to integrate youth careers for sustainability as a focus for upcoming youth events. The World Changing Careers Symposium is helping to strengthen the bi-annual Emerging Environmental Leaders Forum organized by Young Environmental Professionals and other partners, in conjunction with the GLOBE Conference. Through the Symposium, Emerging Environmental Leaders Forum organizers connected with new prospective volunteers and advisors for the next event, held in Vancouver, March 2010. They also generated new partnership ideas to expand the initiative. 2010 Forum organizer, Alice Miro, says, "The Symposium created a tremendous amount of momentum and interest for green entrepreneurship. It expanded the pool of prospective participants for future Emerging Environmental Leaders initiatives, thereby helping to build a Pan-Canadian movement to address pressing challenges such as climate change."

Ongoing web presence: Changing Climates Educational Society will be maintaining and enhancing the video footage and text generated from World Changing Careers on the event website. The online forum will also be kept as a resource for people to connect on the themes presented at the symposium. All material given out on the symposium memory sticks will also be uploaded to our website, providing further information on green jobs and systemic change for sustainability.

In addition to these initiatives, Changing Climates Educational Society will be reviewing numerous other suggestions for ongoing initiatives that were put forward by symposium participants. These will be communicated via our website at the appropriate time.

Personal career development: It is our belief that the symposium itself, by contributing to the development of career paths for sustainability, embodies ongoing action. It is our hope that those involved will actively engage in constructing a vision of a sustainable future and commit to creating a career path to help realize it by drawing on their own passions and strengths in addition to those of others. We believe that the idea of World Changing Careers is worth spreading, and we are committed to helping it continue to catalyze change.