

STTPA Conference 2019

attended by Diane Szoller, ACE member

A Sustainability: Transdisciplinary Theory, Practice, and Action conference was held Oct 16-18, 2019 at the University of Toronto Mississauga (UTM) campus.

The STTPA Conference was organized by the Master of Science in Sustainability Management (MScSM) program, part of the Institute for Management & Innovation (IMI) at UTM.

Sustainability is the core challenge of our era. We all have a role to play in the path towards sustainability. The path towards sustainability is possible only through a culture of sustainability that promotes the wellbeing of all generations, maintains healthy ecosystems, and fosters regenerative relations between natural, social, and technological systems. The conference offered a sharing of critical, holistic, and integrative thinking that drew upon traditional academic disciplines (such as natural sciences, social sciences, humanities, management, and engineering), transdisciplinary and emerging academic fields, and areas of specialization as well as through practices and actions. The contributions were on any aspect of sustainability and/or any of the 17 Sustainable Development Goals.

Key points of interest are listed beside each item in the table of contents below. The bottom line is it is difficult – nearly impossible – to give up our reliance entirely, but if we can be conscious about where our products are sourced from, strive to purchase the more sustainable alternatives, and best of all, just consume less of it, we will be part of making proactive change, this should also be combined with proactive protection of all species. A systems thinking approach is needed to understand human health. Microbial life, water systems, soil systems, biodiversity, pollinators, emissions, nutrient management, waste, climate all need to be considered.

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Day 1 | October 16, 2019 Opening Ceremony and Plenary Session

K1: Keynote: Fatima and Amna Sultan – Fatima & Amna are 10 and 8-year-old founders of Two Sisters on a Mission and authors of “Anything is Possible”. They have inspired thousands at major conferences and business competitions. Canada’s Youngest Social Entrepreneurs are on a mission to make a real difference. Through their travels, they questioned why no-one was helping individuals in marginalized communities, especially artists. Key learnings – Age is a non-factor in making change. To build a sustainable future, we need to empower the next generation. There is never a perfect time to follow your dreams, today is a perfect day to start.

K1: Keynote: John Holmberg – John encourages radical change for creating sustainability rather than maintaining the status quo. He offered 3 keywords to think about going forward in our sustainability endeavors: transformation, integration and universality. John’s Lighthouse Model of society, economy, and ecology, with the latter the base, and human needs being in the light’s focus, is another way of looking at Triple Bottom Line strategy. Key learnings – Trust fuels

creativity. Be proactive not reactive on climate change. Language is power. Study the past to create the right future. Both management and exploration/reflection needed to make change.

Sub-Plenary Concurrent Panel Sessions (11:00)

P1: Enhancing Sustainability of Public Transportation through Design Excellence – Discussion on Ontario improvements ie Metrolinx rapid transit network, Denmark sustainable infrastructure.

P2: Opportunities, Risks, and Challenges developing RNG Projects in North America – Discussion on Toronto using food waste conversion to natural gas that feeds back into homes.

P3: Committed to GHG Targets: Walking the Talk at U of T – Discussion on their target of 37% below 1990's CO2 level, geothermal, passive building standard, U-Pass, vertical farm, bee farm.

P4: Designing Sustainable Lifelong Learning Communities to Nurture SMART City Ecosystems – Discussion on Erin Mills Connect services for youth, children, Mississauga SMART City plan.

Concurrent Sessions (14:00)

CA1: Transformative Learning and Sustainability – Discussion on curriculum reform needed, ie Taiwan environment education, SDGs in classroom, Ecovillages, STARS university database.

CA2: Representations of the Environment and Sustainability – Discussion on 5 topics/speakers: sustainability in Tourism, Religion, Material Engagement Theory, Petro - Cultures and Hip Hop.

CA3: Towards Improved Understanding of Variability in the Water Cycle Behaviour and Water Resources – Discussion on Credit Valley watershed satellite depth maps, precipitation data sets with hydrological models, stormwater management efficiency, soil moisture in the Great Lakes.

CA4: Geospatial Data and Analysis for Terrestrial Ecosystem Health – Discussion on measuring forest growth/decline through satellite images across suburbanizing spaces, tree inventories.

CA5: Human Health and Wellbeing – Discussion on marijuana used for fabric, food, paper, etc. grown for over 5000 years; sustainability diets, increasing population means more land use, food.

CA6: Mixed Analysis of Sustainability – Discussion on forest diversity/timber market volatility; importance of indigenous knowledge for water use in Sri Lanka; sustainable forest management.

CA7: Sustainable Food System Pedagogy – Discussion on bottom up AND top down methods for food as basic human right, rights approach in Canada (food guide), need for a food policy.

CA8: Animating the Urban: Urban Wildlife between Encounter and Infrastructure – Discussion on wildlife as residents, not pests, species are highly adaptable, ie coyotes, bats, grey squirrels.

Concurrent Sessions (16:30)

CB1: Transformative Learning and Sustainability – Discussion on green prison programs, Challenge Labs, learning sources are infinite, experimental curriculums, microenvironments.

CB2: Sustainability and the Sacred – Discussion on Buddhist Ethics framework, importance of place. We're genetically predisposed to observe issues as entities, vs as an integrated system.

CB3: Behavioural Science and Sustainability – Discussion on stakeholders, behavioural science as tool to 'manipulate' consumers to make sustainable choices. Reframe consumerism, for paradigm shift.

CB4: Social, Economic, Environmental, and Policy Perspectives on Waste – Discussion on version affected by behaviours, perceptions, and attitudes, planetary waste/space debris issues.

CB5: Sustainability at Educational Institutions – Discussion on LEED Science Lab – UTM, U of Utrecht, U of Edinburgh, UNAM in Mexico, and curriculum on effects of trauma in children.

CB6: Solution Session: Building Community Resilience with Climate Smart Agriculture – Discussion on problem solving, different communities, traditional knowledge, systems thinking.

CB7: Solution Session: Solving Unprecedented Global Biodiversity Loss: A Systems Approach

– Discussion on: global biodiversity loss is declining, drivers of biodiversity loss accelerating, biodiversity is complex/requires transformative change. These solutions involve leverage points. CB8: Workshop: The Three Real Reasons Businesses Want to Fix Climate Change – Discussion on mitigating risks, capturing opportunities, damage to supply chain, reputation or lower asset value.

Training Workshops (18:00)

T1: Eating the Energy Elephant: Tangible Things to Make Energy Management Manageable – Discussion on energy baselines, cost avoidance, energy team, overcoming challenges, next steps.

T2: Designing Social Media Campaign for Sustainability – Discussion on designing a social media campaign to combat consumerism with a specific call to action (specific audiences).

T3: Critical Sustainability Education: The Case for the Alternative Campus Tour – Discussion motivated by a variety of objectives, including student recruitment/retention, often curated with ‘official’ narratives to reinforce institutional self-image and brand. Through a critical pedagogy lens in service of the broader project of critical sustainability education, tours are examined.

T4: Psycho-Spirituality and Sustainability Management with a Focus on Changing Climate – Discussion on spiritual intelligence and belief systems instrumental in framing the psychological subset of attitudes across cultures, which subsequently determine how sustainability management in society takes place may come through mindfulness, behavioural restraint and positive existential transcendence in order to help manage the earth’s sustainability. Also subconsciously control of materialistic urges leading to ecologically unsustainable growth on one hand and developing positive motivations and emotions towards changing climatic scenario on the other.

Day 2 | October 17, 2019 Plenary Session

7 K1: Keynote: Gregory Cajete – The sense of community: the non-monetary value exchange of care, knowledge, support, perception of belonging and supporting a sense of identity is what Indigenous people heavily use. Indigenous people are like the miner’s canary when cultures and languages disappear; this reflects a profound sickness in our ecology. In NA, climate change has drastically affected indigenous peoples’ hunting, economic infrastructure, water and housing availability, forest and agriculture resources, even their health and well-being. Traditional knowledge is important. Key learning – Point of purchase will equal the point of the problem.

K1: Keynote: Ersilia Serafini – Ersilia, President and CEO of Summerhill Group recommends to take opportunities, whether it be through volunteering, internships, instead of trying so hard to climb that corporate ladder. If you want to promote sustainable behaviour to customers/society, you can’t shame them, guilt them, or force changes. The solution is to incentivize them, trigger their personal needs such as money, discounts, an exchange for something better, because at the end of the day, even if they want to be sustainable/environmentally friendly, they need an incentive. Key learning – to lessen environmental impacts gather an enthusiastic, driven team.

Concurrent Panel Sessions (11:00)

P1: Consuming Sustainability – Discussion on importance of women in the political discussions of food choices, eat meat ethically; local food, green consumerism, social movements needed.

P2: Sustainability Reporting – Trends, Best Practices and New Directions – Discussion on BMO

investments/operational sustainability, Maple Leaf Foods CSR Strategies, reporting disclosures.
P3: Whose Water Is It? Panel Discussion on Nestlé's Water Extraction in Ontario – Discussion on province approves water extraction permits, residents continue to speak, use scientific data.
P4: Sustainability and IT – Discussion on Compugen's Green 4 Good corporate program, HP cartridge/plastics recycling, Cisco helping with social issues, Microsoft's refurbished computers.
P5: Small Scale Mining and SGD's in Sub-Saharan Africa – Discussion if properly supported, the sector may alleviate significant poverty and catalyze economic development region-wide.

Concurrent Sessions (14:00)

CA1: Advancing Sustainable Procurement – Discussion on integration of sustainability into making business services/processes (using circular economy), leads to better decision making.
CA2: Sustainability Reporting – Discussion on study showed Turkey needs to do more, science-based targets, reporting starts with investors, it moves down to retailers and brand processors.
CA3: Sustainability and the Sacred – Discussion on sustainability is integrated into all aspects of life, we can learn a lot from animal behaviours, most religions encourage nature stewardship.
CA4: Some Thoughts about Sustainability – Discussion on how slow humanity is on solutions, education is key, it's a quagmire, reaching tipping point, mass scale change needed, ecolocalism.
CA5: Sustainability Across Sectors – Discussion on preserving habitats and species for present and future generations, carbon offsets, OBERLAND agriscience, healthcare medical waste audit.
CA6: Workshop: Is Corporate Sustainability Broken? If it is, then how did we get here? – Discussion on policy regulations, government, corporate values, need for informed consumers.
CA7: Workshop: Carbon Pricing Across Canada – Discussion on ClearBlue markets, Ontario, EU Emissions trade system, Corsia aviation market, shipping next, Canada, Quebec/CA market.
CA8: Workshop: The People Behind the Product: Why Women are Key to a Food Secure Tomorrow – Discussion on lack of knowledge consumers have on where their food comes from.

Poster Presentation Viewing, Industry Display (15:30) Posters

Plenary Session (17:45) K2: Keynote: Dr. David Suzuki (LIVE via webcast). The Challenge of the 21st Century: Setting the Bottom Line in the Anthropocene

He reminded us with great power comes great responsibility but unfortunately for us and the species of the earth we do not know how to yield our power responsibly. Human activity is the primary cause of the ongoing mass extinction and degradation of the biosphere. The government is controlling the environmental industry. The legal systems are against nature currently. The biggest thing young people can do is educate themselves and then vote. Key learning - Five things that we as humans need to change immediately are:

1. Get environmental damaging activities under control to restore and protect the integrity of earth systems
2. Manage resources crucial to human welfare more critically
3. Stabilize the population
4. Reduce and eventually eliminate poverty
5. Ensure gender equality and give women control over reproduction

Day 3 | October 18, 2019 Plenary Session

K1: Keynote: Scott Frickel – Scott is a Professor of Sociology at the Institute for the Study of Environment and Society. A growing feature of his current research involves developing new approaches/theories to identify and measure socio-environmental change given the interplay of urban demography, industrialization and risk management (which is poorly understood). There is a relentless amount of increasing industrial land across both urban and residential areas thus Scott's interest in the transformation of urban soils. Key learning – we know that as increasing flooding occurs with climate change, there is renewed risk of contaminated movement in developing properties and that the legacy contaminants can be re-exposed, posing more risk.

K1: John Cartwright, President of the Toronto & York Region Labour Council, has led numerous campaigns for social, economic and climate justice. John noted what happens in workplaces contributes largely to greenhouse gas emissions. Yet, current thinking mainly focuses on large industrial emitters. There are many examples of dramatic workplace improvements around energy use, waste reduction and product substitution to lesson toxics in the workplace. There is a lot more to do to adopt net-zero goals and fair and equitable work spaces. Key learning – innovative research and the teaching of best practices, in collaboration with community colleges, and universities, could drive new levels of sustainability in every sector of the economy.

Concurrent Sessions (11:00)

CA1: Panel: Connecting Spirituality and Sustainability – Discussion on the Pope's encyclical, stewardship, our working together to decrease consumerism and emissions, sustainable change.

CA2: Moving Toward More Sustainable Cities through Transdisciplinary Perspectives – Discussion on timber as a sustainable building material, rapid urbanization, water management.

CA3: Eating Green: The Role of Institutions at Multiple Scales – Discussion on food charters, farmer tax credit for donating excess food to food banks, universities/meal plans/local food.

CA4: Far Right Opposition to Environmentalism – Discussion on right-wing populist movement impacts on sustainable policy, self-identity impact on environmentalism, social responsibility.

CA5: Economic Perspectives of Sustainability – Discussion on setting up of new media natural resource intensive oligopolies, greenwashing, industrial symbiosis, Lake Chad's resources.

CA6: Sustainability in Urban Areas – Discussion on peri-urban areas, water management, high rise developments, Sustainable Neighbourhood Action Plans, air quality issues in urban areas.

CA7: Migration, Diversity, and Justice in Sustainable Organizations – Discussion on newcomers discussion forums, reward management of int'l non-government agencies, China's hukou issues.

Concurrent Sessions (13:30)

CB1: Carbon Emissions and Trading Schemes – Discussion on emerging trends, factors in China forestry participation in carbon emission trading, waiting to see approach, Nigeria cook stoves.

CB2: Moving Toward More Sustainable Cities through Transdisciplinary Perspectives – Discussion on community garden land, energy efficiency, greater populations, circular economy.

CB3: Eating Green: Growing a Culture of Sustainable Food – Discussion on plant-based diets, holistic lens, balance, healthy diet, sustainable local food systems, fewer farmers, food guides, consumer education, sustainable parameters, Indigenous theory and ontology, systems thinking.

CB4: Floods, Storms, and Sustainable Management of Water – Discussion on yearly flooding of Ucayali River, droughts, food shortages/coping strategies, hurricane Erika, global water crisis.

CB5: Multiple Dimensions of Global Warming and Sustainability – Discussion on sustainability in the macrocosm, same of microcosm first; Phnom Kulen forests, populations, Anthropocene.
CB6: Sustainable Land Use and Food Systems – Discussion on factors that lead to land cover change, urbanization grows as families access housing, education, lifecycle assessment on farms.
CB7: Diverse Perspectives on Sustainability – Discussion on transdisciplinary collaboration research, road network datasets, Lake Chad soft power, Vietnam economies from wetland parks.

Concurrent Sessions (15:30)

CC1: Humanizing Sustainability: What Can Environmental Humanities Bring to Sustainability Thinking? – Discussion on storytelling, corporate messages not questioned. Sustainability strategies successful only if culture of people it affects, is understood, tailor to community.
CC2: Sustainability and Critical Disaster Studies – Discussion on disaster scientists concerned that they can't define what they're studying, try to find objective definition for subjective topic; hurricane Maria reflects our growing dependency on infrastructure in the technosphere; socially produced disaster vulnerability. Creating sustainability falls on the people who can't afford it.
CC3: Technology, Business, and Sustainability – Discussion on mapping use of energy in homes, Turkey study on sustainability, workplace staff experiences, disaster resiliency efforts.
CC4: Circular Economy or Circular Logic?: Revisiting the Links Between the Economy and the Environment – Discussion on Amazon, consumer approach- ecological viability, circular futures.
CC5: Advancements in Climate Change Law and Policy – Discussion on solar energy policy in Ghana, transition of the urban freight industry in Canada to a low-carbon economy; transfer of clean energy technologies in the Post-Paris international economy; carbon trading mechanisms.
CC6: Workshop: AIESEC – Facilitated by: Mia Nguyen and Wai Chung Lam. AIESEC is the world's largest youth organization creating project opportunities for university students toward the Sustainable Development Goals. Mia's project was in the Philippines focused on financial illiteracy for Filipina mothers and grandmothers who were in a microfinance programme. Wai developed marketing strategies to help an NGO in Brazil promote their community services.