

Conference Report



Atlantic **C**onnect**T**ions Conference

Advancing Women in SETT

2015

Page intentionally blank for printing



8 July 2015

Dear Reader,

The idea for the Atlantic Connections Regional Conference towards advancing women in Science, Engineering, Trades and Technology (SETT) was initially born out of discussions that I had with the other NSERC Chairs for Women in Science and Engineering. The Canadian national conference for supporting and promoting women in SETT, is held biennially by CCWESTT (Canadian Coalition of Women in Engineering, Science, Technology and Trades). This national conference is held in a different location every two years. The 2012 CCWESTT conference was held in Halifax, Nova Scotia. After hearing about the successes of the regional conferences organized by other NSERC CWSE's, and noticing that very few participants from Atlantic Canada attended the 2014 CCWESTT conference in Regina, Saskatchewan, I recognized a need for an Atlantic regional conference. I took this idea to the regional connection nodes network that I have established over the last 3.5 years, and there was overwhelming support for a regional conference. An enthusiastic steering committee was established and plans for our first Atlantic Connections Conference started.

This report summarises the structure and outcomes from the 2015 Atlantic Connections Conference. I hope that this report is useful to you, as you think about how we can work together towards advancing women in SETT in Canada. The conference discussion topics that were created by attendees are listed on page 14 and the summaries of the discussions of these topics are given in Appendix Ten on page 51 through to page 70.

I encourage you to share this report with others, to brainstorm ways in which you can make a difference for women in SETT in Canada and to take individual action.

Sincerely,

Dr. Tamara Franz-Odendaal
NSERC Atlantic Chair for Women in Science and Engineering,
Mount Saint Vincent University

Main Sponsors:



We Also Thank:



All employers who funded their staff, faculty and/or students to attend the conference

The NSERC Women in Science and Engineering – Atlantic Region Program Sponsors are:

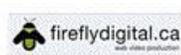


Table of Contents

Background.....	3
Conference Vision.....	3
Designing the Space to ACT!.....	4
Official Welcome	4
Framing the Conversation	5
Stories from the Field World Café	6
Stories from the Field – The Personal Journey.....	7
Stories from the Field Café – Organization and System Stories	9
Open Space Technology – What are the Issues and Opportunities For Women In SETT to Take Action That Will Make a Difference?	11
The Process	11
Agenda.....	13
Reports of Discussions	14
Op Ed Workshop.....	17
Going Out to ACT!.....	18
Collective Action Commitments	18
Closing Circle Reflections	19
Evaluation Highlights.....	20
Conclusion	22
Appendix One: Steering Committee – Atlantic Connections Conference 2015.....	23
Appendix Two: Invitation	24
Appendix Three: Program of Events – Atlantic Connections Conference.....	25
Appendix Four: Speaker Biographies.....	28
Appendix Five: Attracting & Retaining Top SETT Talent.....	36
Appendix Six: Personal Journey World Café Table Notes.....	37
What’s working?.....	37
What are the challenges?	38
What stands out?	40
What stories do you bring?.....	41
Appendix Seven: Organizational & System Change World Café Table Notes	43
What changes are you seeing & hearing?	43

What makes this possible?.....	43
Appendix Eight: Questions and Possibilities for a new Story – World Café Post-It Notes.....	46
Appendix Nine: Participant Guide - Open Space Technology.....	50
Appendix Ten: Open Space Technology Discussion Reports.....	51
Round 1 Open Space Conversations.....	52
1.1 Finding Family –Work-Life Balance.....	52
1.2 What difference do female voices make? How to amplify?.....	53
1.3 Ways to engage girls in SETT.....	54
1.4 Doing science as if people matter, marrying SETT and social justice.....	55
1.5 Early mobility between science, engineering, trades and technology.....	56
1.6 Increase enrollment of women in engineering – to meet the 30 by 30 Goal.....	57
1.7 Addressing math and physics phobias.....	58
Round 2 Open Space Conversations.....	59
2.1 Women in SETT Leadership.....	59
2.2 What advice would you give to your younger self?.....	60
2.3 Changing Workplace Culture.....	61
2.4 Learning to self-advocate.....	65
2.5 Lobbying government for action now (or soon?).....	66
2.6 Supporting women in Academia.....	68
Round 3 Open Space Conversations.....	69
3.1 Connecting government, industry and educational bodies for women in trades.....	69
3.2 Sharing Our Stories.....	70
3.3 Un-Silencing of Gender and Sexuality Minorities.....	71
3.4 Gender stereotypes – especially those that are implicit in nature.....	73
Appendix Eleven: Atlantic ConnecTions Conference - Evaluation Summary.....	74

BACKGROUND

The idea for a regional gathering of women in Science, Engineering, Trades and Technology (SETT) evolved out of the series of biennial national conferences held by the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT). Women in Atlantic Canada talked about creating a regional gathering. What could women working together in Atlantic Canada do to make a difference for women in SETT? With the leadership of the Natural Sciences and Engineering Research Council (NSERC) Atlantic Chair for Women in Science and Engineering, Dr. Tamara Franz-Odendaal, who is also an Associate Professor of Biology at Mount Saint Vincent University, the first Atlantic ConnecTions conference was held in Sackville, NB, on June 4-5, 2015. Seventy-five participants from across SETT sectors, mostly women, responded to the invitation. Participants came from businesses, universities and colleges, not-for-profit organizations and government. This report is a brief summary of the proceedings.



CONFERENCE VISION

The Conference Steering Committee convened several planning calls in the fall of 2014. The sixteen woman committee (Appendix One – page 23) worked with Donna Clark, facilitator, Courage Group International, to co-create a vision for the conference. The Conference Committee wanted to create a conference that would engage people toward action. They wanted women to connect with each other and leave the conference knowing that their voices were heard, and that their successes were celebrated. They wanted to get new ideas, insights and hope. They wanted to go home with specific actions they could take both individually and together with others. Out of this vision they created the theme using the acronym ACT!

Atlantic ConnecTions Conference: Advancing Women in SETT

- Act
- Celebrate. Collaborate.
- Transform



Advancing Women in SETT

The committee invited women and their male colleagues in SETT from a cross-section of industries, education, government and not-for-profit organizations from the Atlantic region to attend. The invitation is provided in Appendix Two (page 24).

DESIGNING THE SPACE TO ACT!

The conference vision and theme called for a highly participatory conference design. The committee worked with the facilitators to bring their vision to life. Donna Clark with Janet Rhymes and Corrie Melanson from See Meaning developed an innovative meeting design. They selected speakers to help set the stage for the conversations, yet ensured there was an opportunity to learn from the wisdom of the people who chose to come. The plan incorporated processes that maximized networking amongst participants. Key ingredients included spaces for sharing stories, celebrating successes, discovering opportunities for new actions and documenting the stories and ideas for action. A combination of World Café and Open Space Technology were chosen as facilitation approaches. Throughout the conference, the proceedings were documented using graphic recording by Corrie Melanson. This process captures the conversations in images and texts on large pieces of paper during the meeting. The graphics are included as summaries for each session.

The complete Program of Events for the conference is provided in Appendix Three (page 25). Overviews of each meeting process, as well as graphic and written reports from the conversations are provided in this report. Biographies for all speakers and facilitators are provided in Appendix Four (page 28).

A pre-conference WinSETT leadership workshop, Attracting and Retaining Top SETT Talent, was organized by NB Women in ICT and APEG NB (Engineers and Geoscientists New Brunswick) with sponsorship from IBM, APEGNB, Venn, WISEatlantic, WinSETT Centre, and NB Power. It provided a learning opportunity designed specifically for employers. See Appendix Five (page 36) for information on this workshop.

OFFICIAL WELCOME

The Honourable Jocelyne Roy Vienneau, O.N.B., Lieutenant Governor, Province of New Brunswick, welcomed participants to the conference. Ms. Roy Vienneau is an executive whose career and community engagement have focused on economic development and the promotion and advancement of education. She shared reflections from her own experience of being a woman in engineering.



FRAMING THE CONVERSATION

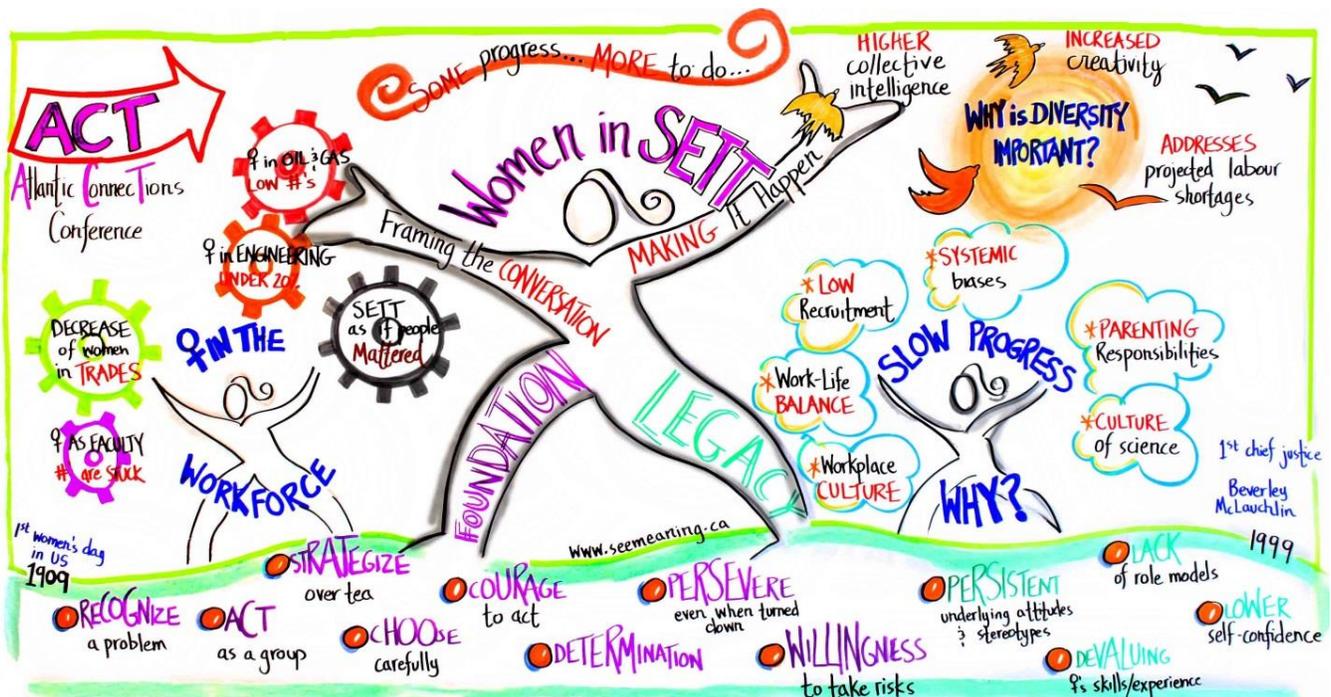
Dr. Margaret-Ann Armour, Associate Dean of Science, Diversity, University of Alberta and Nan Armour, Former Executive Director, Hypatia Association set the stage for the conference by highlighting the current situation for women, why progress is slow, why diversity is important and the lessons we can learn from the women who have come before us. The graphic recording below summarizes their presentations.



Dr. Margaret-Ann Armour



Nan Armour



STORIES FROM THE FIELD WORLD CAFÉ

World Café is a conversational process that makes it possible to hear and see the wisdom that emerges from a large group of people. This process is an ideal way to capture the learning from stories shared by speakers and participants.



To create the energy of a café, participants are invited to sit in small groups at tables that were decorated with flowers and that were covered with chart paper and colourful markers for doodling. Participants then engaged in conversations in these small table groups and later moved between tables as they continued conversations. Questions were provided to focus the conversations around the purpose for convening the conversation. Participants were invited to write and doodle on the paper table cloths provided, and as the conversation progresses, the facilitator invited participants to share into the large group the ideas and insights that emerged. This process links and connects ideas that are growing within the large group. As the ideas are shared they are recorded on a large chart by a graphic recorder creating a powerful representation of the collective wisdom in the room. The following guidelines were shared with the participants as they prepared to listen to the speakers and engage together.



STORIES FROM THE FIELD – THE PERSONAL JOURNEY

Two guest speakers opened this part of the café: Dr. Stephanie MacQuarrie, Chemistry Department, Cape Breton University, and Kirsten Tomilson, President and CEO, Fourth Monkey Media. They briefly shared their personal stories as women in SETT.

Participants were invited to listen to the stories and to share their own stories with others at their tables. Participants moved between tables to meet others and hear their stories. From the stories shared, participants identified “what’s working” and “challenges”. The highlights of the speakers’ stories and the café conversations are summarized in the graphic chart on the next page. Notes from the table top templates are provided in Appendix Six (page 37).

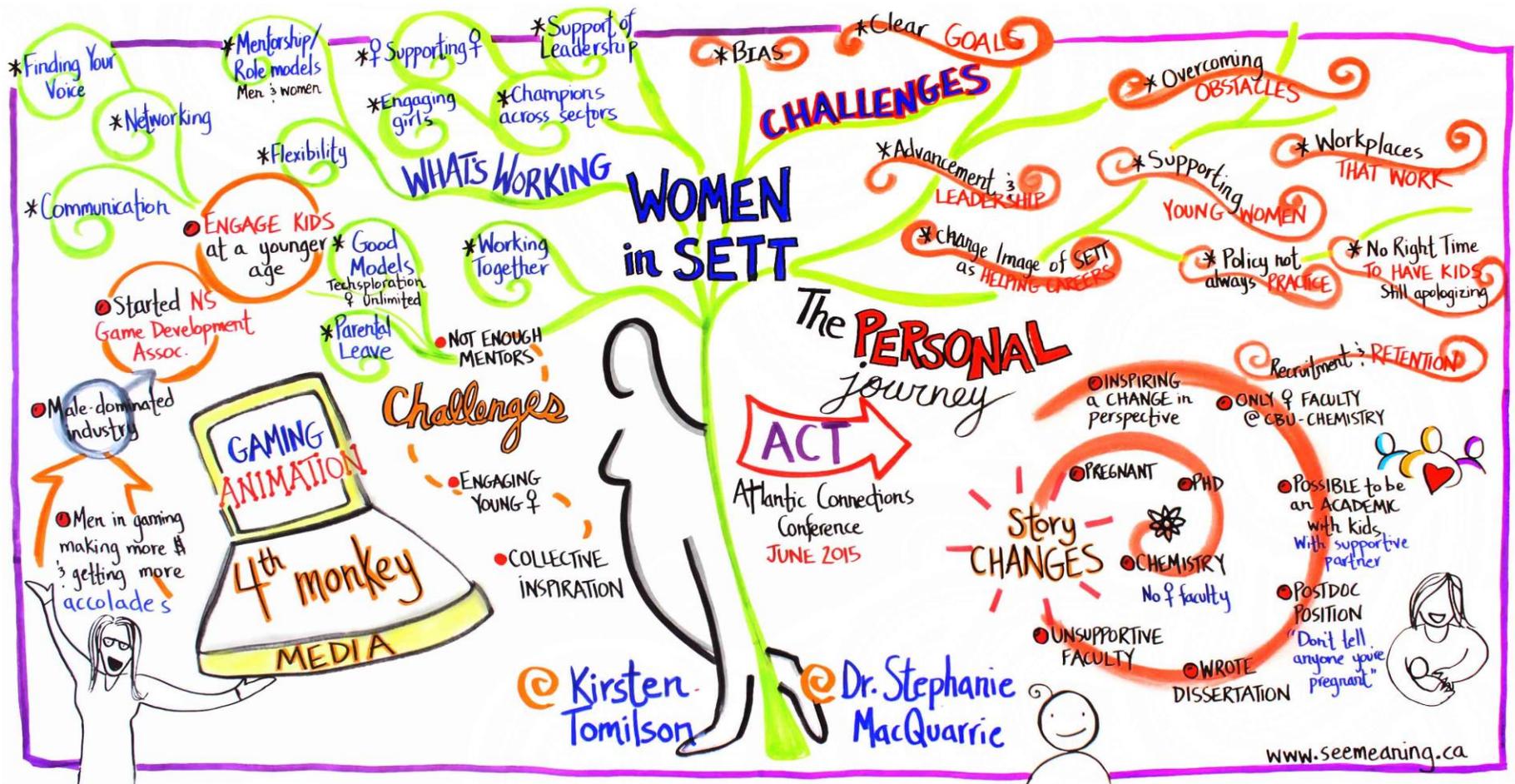


Dr. Stephanie MacQuarrie



Kirsten Tomilson





STORIES FROM THE FIELD CAFÉ – ORGANIZATION AND SYSTEM STORIES

The second half of the café was focused on organization and larger system collaborative efforts. Three speakers shared their experiences of working in large organizations and on projects designed to cause bigger system change: Dr Sherry Niven, Assistant Regional Director, Science, Fisheries and Oceans Canada, Maritimes Region; Dr. Dhirendra Shukla, (PEng), University of New Brunswick; and Doreen Parsons, Manager, Women Unlimited Association. Participants were invited to listen for how systems are changing and what is making this possible. The participant table notes are in Appendix Seven (page 43). The café concluded by inviting responses to the question: “What possibilities for a new story are emerging?” The responses collected from participants are provided in Appendix Eight (page 46). The wisdom that emerged from these conversations is summarized and documented in the graphic recording on the next page.



Dr. Sherry Niven



Dr. Dhirendra Shukla



Doreen Parsons



*30 by 2030

What possibilities are EMERGING

- *learn from one another
- *one message = more impact
- *connect industry & programs for ♀ in NB
- *♀ coming together informally
- *Use what's available & tools you have
- *Employment equity
- *Increase representation of ♀ in SETT

1 CHANGE CULTURE

Be as involved as you can

2 DO OUR BIT to develop CRITICAL MASS

3 SUPPORTING other women in SETT

Dr. Sherry Niven BIO

What is CHANGING?

- *culture change
- *better disseminate data

Diversity The SMART thing to do

- *diversity plan
- *share best practices

Explicit Partnerships

Breaking cycle of poverty

Engaging men & boys

Support for managers

ORGANIZATIONAL & SYSTEM

Dr. Dhirendra Shukla

started eating together

FIRED

for being D-I-F-F-E-R-E-N-T

! Faced racism & daily discrimination & sexism

Need to PERSEVERE

What makes it POSSIBLE?

- Better MEASUREMENT tools & benchmarks
- PARTNERSHIPS & collaboration
- LONG-TERM Commitment

• REQUIRED diversity plans

• LEGISLATION

• Relationships & TRUST

• LEADERSHIP

Women at the centre

Common Goal

Well defined Action Plan

Intentional Partnerships

Flexible & Responsive

Trusting Relationships

Change

Doreen Parsons WOMEN UNLIMITED

our Model!

• PARTNERSHIPS Industry, colleges

• ♀-CENTRED Diverse, Under-employed women

• LONG-TERM 3-4 years after 14-week program

- *Childcare
- *Transportation
- *Lack of Meeting ♀'s Needs

SARAH

- 570 Women
- Single mom
- Low self-confidence
- Low wage employment

- Career Exploration
- Personal Development
- Mentoring & Networking

OPEN SPACE TECHNOLOGY – WHAT ARE THE ISSUES AND OPPORTUNITIES FOR WOMEN IN SETT TO TAKE ACTION THAT WILL MAKE A DIFFERENCE?

Out of the stories of successes and challenges that had been shared up to this point in the conference, ideas were beginning to surface. Participants made sense of these ideas by connecting them to the unique situations they were facing. This created a buzz amongst participants. The stage was now set for more in depth conversations of the issues and opportunities for women in SETT to take actions that would make a difference. After dinner, participants joined in an Open Space Technology meeting process, a process ideally suited for the task before them.

THE PROCESS

Open Space Technology (OST) is the name given to a meeting without a predetermined agenda. Developed in the late eighties by Harrison Owen, this meeting methodology is now used around the world as an effective process for facilitating learning and change in both organizational and community settings. It is a very effective way to support the collective wisdom of large groups to emerge and work with mind, emotion, spirit and body to uncover possibilities for action.



Open Space Technology is best used when there is an important issue to be addressed, a diversity of people involved, complexity, high passion, including conflict, or when decisions need to be made quickly. Open Space Technology meetings enable the building of energy and participation in ways that few other processes do. They create the conditions for interactive processes that allow leadership to surface naturally and that support creativity, deep learning and high play. They are effective for any sized group from five to six hundred and more. They are effective for groups such as corporations, private and public sector organizations, government and non-government organizations, coalitions, teams or communities.

The process described below illustrates the Open Space Technology meeting methodology. A meeting of one day or less provides the opportunity for raising and discussing issues and opportunities and identifying areas for further action. A two-day meeting usually results in

discussion, more detailed strategy formulation and action planning. An additional day supports all of the above and provides the opportunity to actually initiate the detailed action planning and develop implementation strategies to ensure that the ideas move forward after the meeting.

When participants arrived for this part of the meeting, they were invited to sit in a circle. Donna Clark, the facilitator, provided a brief review of the context and introduced the theme and then guided people through the process. She explained some of the background of the process and then the agenda was revealed...a blank wall. The group was informed that they would be creating the agenda for the rest of the conference by writing down any topics that they had passion for and for which were willing to take responsibility to lead discussion. The facilitator outlined the principles and laws that guide an Open Space Technology meeting.

Law of Two Feet Law of Mobility



COURAGE GROUP INTERNATIONAL WWW.COURAGEGROUP.CA

“The Law of Mobility” is the last guiding principle. This means that if participants found themselves in discussions for which they did not feel passionate or were not able to contribute or learn, they were encouraged to exercise the law of two feet, and move to another group. The action was not to be viewed as a negative reflection on the group leader.

The discussions of the workshop were bounded by a few givens:

- Participants are welcome to move forward any action that can just be done.
- The reports from the OST meeting will be emailed June 8 to registered participants and will include the list of participants in each OST conversation.
- The full report from the conference will be available on the website ideally within a month and will include the graphic reports from the café and the OST reports. Names of participants will not be included in the publicly posted report.



AGENDA

The participants were invited to create the agenda for the evening and morning discussions. They came to the centre of the circle and wrote down their topics in a few words. Each topic was announced and posted on the wall. This wall became the “Marketplace”. Times for discussion and space locations for these discussions were chosen for each topic.

The agenda creation process continued until all topics were exhausted. Additional topics were also invited at the beginning of day two. A total of 18 topics were identified by participants. See the list of reports on the next page for the topics.



Once the agenda was complete, the marketplace was opened. Participants selected the sessions that they wished to attend and proceeded to the locations where the discussions were taking place. They self-managed the evening and were invited to return to the collective circle for evening news and announcements. Participants also joined together for morning news on day two before continuing to gather for the morning conversations. After lunch there was a time for identifying actions that were emerging for further work following the conference. The participant guide to OST is provided in Appendix Nine (page 50).



Round 2 Open Space Conversations

- 2.1 – Women in SETT leadership
- 2.2 – What advice would you give your younger self?
- 2.3 – Changing workplace culture
- 2.4 – Learning to self-advocate
- 2.5 – Lobbying government for action now (or soon?)
- 2.6 – Supporting women in academia

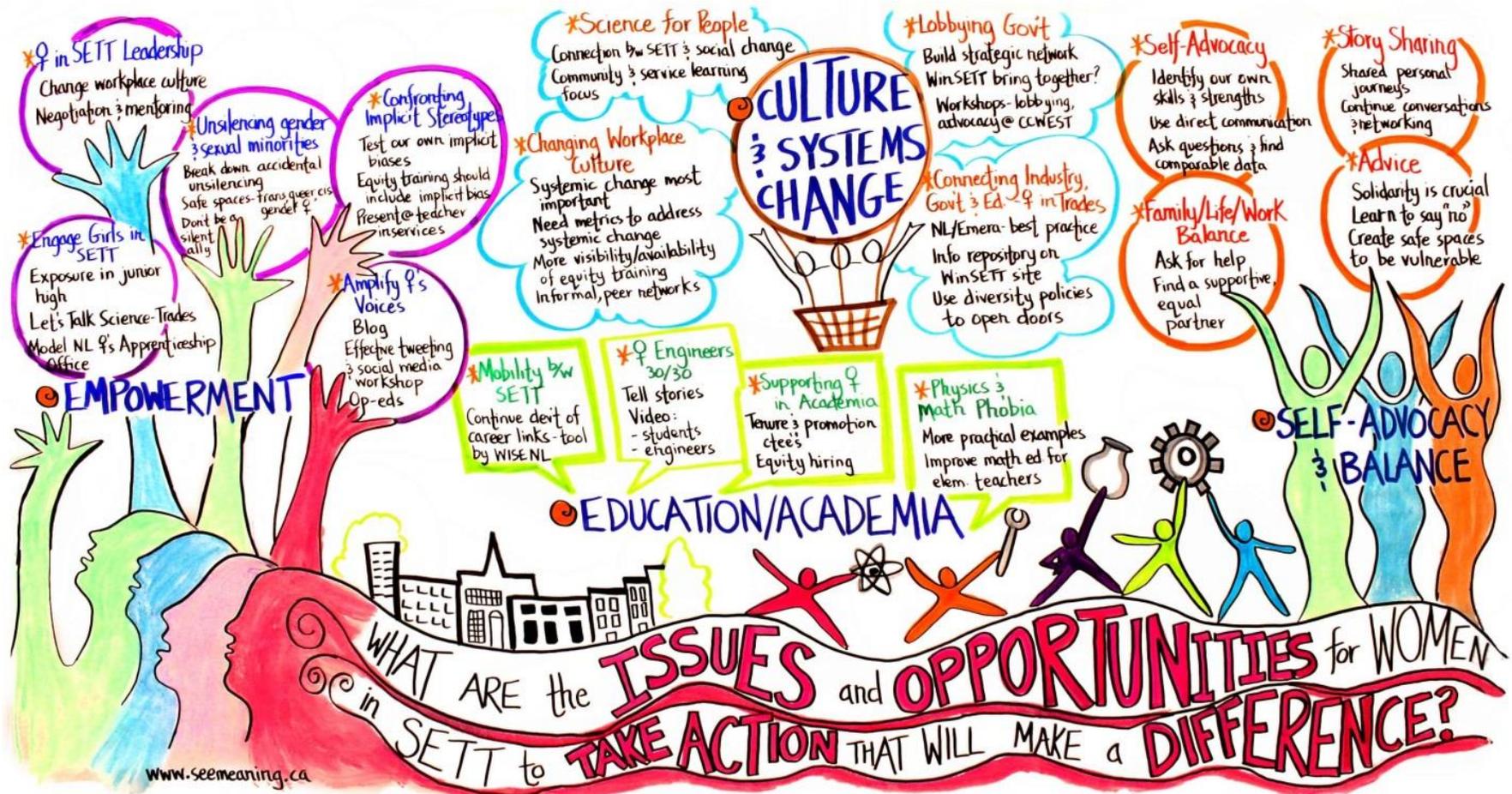


Round 3 Open Space Conversations

- 3.1 – Connecting government, industry, and educational bodies for women in trades
- 3.2 – Sharing our stories
- 3.3 – Un-silencing of gender and sexual minorities
- 3.4 – Gender stereotypes – especially those that are implicit in nature



The graphic recording on the next page summarizes the reports from the open space conversations. Reports focused on four theme areas: Empowerment, culture and systems change, education/academia and self-advocacy and balance.



OP ED WORKSHOP

Sponsored by NSERC

Conference attendees could also choose to attend an Op Ed writing workshop on the morning of day two. Fifteen participants joined award-winning author, educator and advocate, Shari Graydon of Informed Opinions. The description of the workshop on writing compelling commentary is included below.

This highly interactive workshop builds women's leadership capacity and enhances their credibility and influence by providing participants with the confidence and tools to contribute their expertise to the public discourse through compelling, short-form written commentary for newspaper opinion pages and online sites. The session equips women to:

- Own and articulate their authority as experts;
- Understand the essential elements and format of newspaper commentaries, including how to build a concise, persuasive and accessible argument;
- Increase their publication prospects by linking their expertise to the news and enhancing the relevancy and timeliness of their knowledge;
- Correspond and work with editors and journalists in general.

The women who participated were invited to share their thesis statements. They are listed below.

- Schools need to have girls-only programs to increase the number of girls enrolled in STEM and trades
- We need to address the implicit gender bias at the elementary level
- Women's perspectives are needed in technology to create better solutions to serve society
- Our world needs more women engineers and technologists
- We're forcing students to choose between Science, Engineering, Trades & Technology too soon and without enough relevant information
- We need to encourage women to work in non-traditional fields (SETT)
- We must keep supporting fundamental research
- Big data companies need to stop invading our privacy
- We need more women in politics
- The engineering profession needs gender balance
- Millennials are invested in social change
- New immigration legislation is not fair

The Op Ed workshop was highly rated by attendees and 92% indicated that they would write an op ed in the next year!

GOING OUT TO ACT!

After lunch on the second day, all participants were given time to review reports from the Open Space conversations and were able to add comments with post-it notes. The whole group reconvened in a collective circle. They were invited to pause and reflect on the possibilities for “Taking Action That Will Make a Difference for Women in SETT” that had emerged for them. Some actions might be collective actions involving several people, some might be individual commitments inspired by the conversations.



COLLECTIVE ACTION COMMITMENTS

The facilitator invited participants to identify any collective bold actions for which there was passion and for which someone was willing to stand up and say “I will lead this – I’ll get this going.” Clusters of people who wanted to join in an action gathered around these participants for a brief conversation. They named a first step and got names of those who wanted to be involved for follow-up. There were six actions identified:

1. Develop a ‘how-to’ guide for event organizers on gender identity and sexuality inclusivity
2. Maritime/Atlantic collaboration of women in SETT with premiers, Maritimes council & industry/employers
3. Network of girls in STEM curriculum/workshops
4. Create a presentation that can be used by us all to encourage girls in Junior High & High school to go into SETT careers.
5. Take steps to make sure more students can travel/attend these types of conferences.
6. Workshop on gender & sexual orientation



Those who agreed to work on each item are responsible for self-managing their actions. Participants received the list of names of each action cluster to encourage connections after the conference. Many of these conversations have already begun.

Many topics were discussed throughout the sessions. All were important and contributed to the emergence of the final list of actions. And in any community there is only so much energy. By choosing the actions for which there was both passion and responsibility, this ensures the highest likelihood of follow-up action. All the reports will be a resource for the work ahead.



CLOSING CIRCLE REFLECTIONS

"I am leaving here feeling inspired. When I go to work Monday I am going to stand up for myself."

"I want to bring some of your stories home to my daughter and step-daughter."

"It worked really well having the great mix of career and age, this lead to great conversations!"

"Really enjoyed it and as a student about to transition to the workforce. I found this very beneficial to get advice."

The participants gathered again in a circle for the formal closing. They were invited to complete evaluations. The facilitator passed the microphone around the circle and invited anyone who wished to share closing reflections on the Atlantic Connections Conference. Here are the highlights and common threads from the closing circle.

- ✓ Thanks to the organizers for hosting this event and creating the opportunity to connect, hear stories, share challenges and gain new knowledge
- ✓ Appreciated the sharing of resources – we can build on work that has been done
- ✓ Excited about the collective project to bring materials to schools to encourage women in SETT
- ✓ Appreciated the diverse careers, ages, opinions and voices from the various fields – it led to very rich conversations.
- ✓ Suggested that it would be great to have videos of older women who have been pioneers in this work – hear their stories
- ✓ Great learning for a student about to transition to the workforce - this was very beneficial to get advice
- ✓ Appreciated the format. It created a supportive environment, allowed different voices to be heard. Small groups gave us a chance to get to know people. People were candid and honest with each other.

- ✓ The writing Op Ed workshop was excellent. Hope to bring it to PEI.
- ✓ Leaving inspired and humbled – so many smart women in one room! This was an opportunity to re-energize.
- ✓ Appreciated this being an Atlantic region conference. It was as good as CCWESTT! Many calls for this type of gathering to be held regularly.

Conference chairperson, Dr. Tamara Franz-Ondendaal formally closed the conference with expressions of appreciation to the participants, speakers, the organizing committee, sponsors and facilitators. Special thanks were offered to Sally Marchand, Program Coordinator for Women in Science and Engineering, Atlantic Region (WISEatlantic) for taking care of registration and all logistics for the conference.



EVALUATION HIGHLIGHTS

The “wordle” word cloud below was created from the words on the evaluations that described the experiences of participants. The larger words indicate that those were used more frequently. Responses to the evaluation survey were received from 41 participants.



There were several key messages from the participants who completed the evaluation.

- ✓ 95% indicated that the conference either met (54%) or exceeded (41%) their expectations.
- ✓ 90% felt that their questions/concerns/perspectives were heard during the Open Space conversations.
- ✓ Students (37% of respondents) were very appreciative of the experience. They cited the following benefits from attending:
 - new confidence, encouraged, empowering, more hopeful about my future
 - learning from other women in SETT – able to apply at my school and workplace
 - could ask so many candid questions
 - opportunity to network
 - powerful role models that were relatable and hopeful
- ✓ 95 % would be interested in attending another Atlantic Connections conference.
- ✓ 70% of the respondents had never been to a CCWESTT¹ conference.

The Steering Committee decided to use an innovative combination of facilitation techniques for this conference. Speakers were invited to make short presentations and the majority of the time was dedicated to conversations in world café and open space technology. Reaction to the open space technology process from those who completed the survey was positive with an average rating of 4 on a 5 point scale (1- not satisfactory to 5 - excellent). For a future conference 50% suggested a mix of open space format and typical conference and 27% suggested open space format alone. The graphic recording and graphic facilitation components were clearly a big hit with conference participants!

Comments from the evaluations add details to the reflections shared in the closing circle. Participants noted the importance of sharing personal stories and conversations as a way to learn about systemic challenges facing women. Many mentioned their surprise at the small numbers of women in some fields and the obstacles that still exist. One comment noted an observation that many people are still struggling to move beyond personal challenges to get to the strategic level. This conference created an opportunity for these collaborative and strategic opportunities to be discussed, while also supporting individual women dealing with work-life balance and other challenges. Women were leaving recognizing the importance to work together and with more knowledge of the resources available. The experience of the conference created opportunities for some participants to stretch. For example one respondent noted surprise “That I would be so open”. Significantly, many participants were leaving with confidence in themselves and with hope in the possibilities for real change.

While participants clearly appreciated the conference, comments by students and trades people were important to note. The full incorporation of trades was recognised. This is not always the experience of women in trades in the SETT community, so it indicates an important accomplishment for this conference. Students cited the benefits noted above. Another comment is indicative of their experience: “As a student, I did not realize the struggle associated with being a

¹ Canadian Coalition of Women in Science, Engineering, Trades and Technology

woman in science but I believe I know how to approach these issues through meeting such influential and impressive women.”

There is also more work to do to ensure that our next conference responds to the needs of women and trans people in trades. This comment was an important reminder of the necessity to recognize diversity within our SETT community: “Are we ready to change from “women in the trades” to “women and trans people in the trades?” There are people here who do not identify as women, nor as men. If it continues to be a women-focused event, could we explicitly welcome trans women?” These comments and others will provide guidance to make the next conference even better. More details of the evaluation are provided in Appendix Eleven (page 74).

CONCLUSION

The first Atlantic ConnecTions Conference has met a need for women in SETT in Atlantic Canada. A registration of 75 was a great beginning. There were lessons learned for the next one. Dr. Tamara Franz-Odendaal intends to host another Atlantic Connections Conference in 2017, which will build upon the successes of this first meeting. The Steering Committee hopes this report serves as a reminder of what is possible when we work together. We once again thank all the sponsors and supporters of the conference, and of course thank the attendees who contributed to its success.

Now it is up to each of us to do what we committed to do, for ourselves and with each other.



Atlantic ConnecTions Conference

Advancing Women in SETT

APPENDIX ONE: STEERING COMMITTEE – ATLANTIC CONNECTIONS CONFERENCE 2015

Dr. Tamara Franz-Odendaal (Chair)	NSERC Atlantic Chair Women in Science and Engineering & Associate Professor, Mount Saint Vincent University, NS
Nan Armour	Hypatia Association, NS
Donna Clark	Facilitator, Courage Group International, NS
Dr. Amanda Cockshutt	Associate Professor at Mt. Allison University, NB
Dr. Karen Crosby	Assistant Professor at Mt. Allison University, NB
Christy Cunningham	President of ACEC-New Brunswick, NB
Sarah Devereaux	Partner, Dillon Consulting, NS
Christine MacKinnon	Director for Government of Prince Edward Island, PEI
Lori MacLean	Senior Communications Advisor, Encana, NS
Dr. Stephanie MacQuarrie	Associate Professor at Cape Breton University, NS
Dr. Vicki Meli	Associate Professor at Mt. Allison University, NB
Dr. Gloria Montano	Past President, WISE NL, NFL
Dr. Alicia Oickle	Industrial Research Fellow at Cape Breton University, NS
Christine Plourde	President, Engineers and Geoscientists New Brunswick, NB
Meaghan Seagrave	Executive Director, BioNB, NB
Abigail Steel	Environmental Engineer, Department of Natural Resources, NFL
Mary-Clare White	Senior Advisor, Women's Equality Branch, NB

APPENDIX TWO: INVITATION TO THE ATLANTIC CONNECTIONS CONFERENCE



Atlantic Connections Conference

Advancing Women in SETT

Who: Women in SETT and their male colleagues

What: This conference aims to explore what we can do to make a difference for women in SETT.
We want to: **A**ct! **C**elebrate! **C**ollaborate! **T**ransform!

When: June 4 & 5, 2015

Where: Mount Allison University, Sackville, NB

You're Invited...

To connect with women in Science, Engineering, Trades and Technology (SETT)

To be inspired by what women in SETT are learning and doing to make changes in their organizations

To be part of co-creating a new story for women in SETT in Atlantic Canada

To join the conversation!

For more information visit www.AtlanticConnections.ca

APPENDIX THREE: PROGRAM OF EVENTS – ATLANTIC CONNECTIONS CONFERENCE

Program of Events – Atlantic Connections Conference

Mount Allison University, Sackville, New Brunswick
June 4-5, 2014

Wednesday, June 3rd, 2015

1:00PM - 5:00PM **Attracting and Retaining Top SETT Talent**
A workshop for managers, leaders and HR professionals

Thursday, June 4th, 2015

10:15AM – 10:55AM **Registration**, Tweedie Hall

10:55AM – 11:00AM **Welcome**, Tweedie Hall

Dr. Tamara Franz-Odenaal, NSERC Atlantic Chair for Women in
Science and Engineering, Mount Saint Vincent University

11:00AM – 11:10am **Opening Welcome Message**, Tweedie Hall

The Honourable Jocelyne Roy Vienneau, O.N.B., Lieutenant
Governor Province of New Brunswick

11:10AM – 12:00PM **Framing the Conversation**, Tweedie Hall

Dr. Margaret-Ann Armour, Associate Dean of Science, Diversity,
University of Alberta

Nan Armour, Former Executive Director, Hypatia Association

12:00PM – 1:00PM **Lunch**, Jennings Hall

1:00PM – 2:30PM **Stories from the Field Café – The Personal Journey**, Tweedie Hall

Dr. Stephanie MacQuarrie, Chemistry Department,
Cape Breton University

Kirsten Tomilson, President and CEO, Fourth Monkey Media

Challenges? Café Conversations – Sharing Your Stories: What’s working?

2:30PM – 3:00PM **Nutrition Break**

3:00PM – 4:30PM **Stories from the Field Café – Organization and System Stories**, Tweedie Hall

Dr Sherry Niven, Assistant Regional Director – Science, Fisheries and Oceans Canada Maritimes Region

Dr. Dhirendra Shukla (PEng), University of New Brunswick

Doreen Parsons, Manager, Women Unlimited Association

Café Conversations – What is changing? What possibilities are emerging?

Thursday, June 4th- Cont'd

4:30PM – 5:30PM **Break**

5:30PM – 7:00PM **Dinner**, Jennings Hall

7:00PM - 9:30PM Introduction to Open Space Technology, Tweedie Hall
What are the issues and opportunities for women in SETT to take action that will make a difference? How can we:

- Act?
- Collaborate? Celebrate?
- Transform?

Topic Generation, Round 1 Open Space Conversations & Evening News

9:30PM – 2:00AM The campus pub The Pond will be open for trivia night, Wallace McCain Bldg

Friday, June 5th, 2015

7:30AM – 8:30AM **Breakfast**, Jennings Hall

8:30AM – 9:00AM **Morning News and Addition of Topics**, Tweedie Hall

9:00AM - 12:00PM **Parallel Op ED Writing Workshop**
Shari Graydon, Informed Opinions - *Sponsored by NSERC*

9:00AM – 10:15AM **Round 2 Open Space Conversation**

10:15AM – 10:30AM **Nutrition Break**

10:30AM – 11:45AM **Round 3 Open Space Conversations**

11:45AM – 12:15PM **Report Finalization**

12:15PM – 1:15PM **Lunch**, Jennings Hall
Gallery of the Open Space Technology ACT reports, Tweedie Hall

1:15PM – 2:30PM **Going out to ACT**, Tweedie Hall
Closing Circle Reflections

APPENDIX FOUR: SPEAKER BIOGRAPHIES

Welcome Message

The Honourable Jocelyne Roy Vienneau, O.N.B.

Lieutenant Governor, Province of New Brunswick

Jocelyne Roy Vienneau is an executive whose career and community engagement have focused on economic development and the promotion and advancement of education. Until her nomination she was Vice-President at the Université de Moncton's Shippagan Campus. She holds a Master of Public Administration and a Bachelor of Applied Science in Industrial Engineering from the Université de Moncton, as well as a teaching certificate from the province of New Brunswick.



Throughout her career she has sought to promote and advance research and innovation. Ms. Roy Vienneau served as Assistant Deputy Minister for Post-Secondary Education in the Government of New Brunswick's Department of Education. She also worked at the New Brunswick Community College in Bathurst for 23 years as dean, department head, professor, and manager, including six years as the College's Director General. She began her career as a project engineer at the Esso Imperial Oil Limited refinery in Montreal.

Ms. Roy Vienneau was the first woman to occupy a secular position as Vice-President of a campus at the Université de Moncton, the first woman to direct a francophone community college in New Brunswick, and one of the first women to graduate from the Université de Moncton's Faculty of Engineering. In 2003, she was named Alumni of the Year from the Université de Moncton's engineering faculty. In 2001, during her time as Director General of New Brunswick Community College in Bathurst, the school became one of the first two colleges in the country to be eligible for research grants with the Natural Sciences and Engineering Council of Canada.

Ms. Roy Vienneau also served as chairperson of the board of directors of Coastal Zones Research Institute Incorporated as well as board member for many organizations such as the Vitalité Health Network, the Natural Sciences and Engineering Research Council of Canada (NSERC), the Community Foundation of the Acadian Peninsula, the Comité Avenir Jeunesse de la Péninsule acadienne, the **Collectivité ingénieuse de la Péninsule acadienne, etc.** Until her nomination Ms. Roy Vienneau resided in Haut-Shippagan, New Brunswick, with her husband Ronald Vienneau. She is the mother to two grown children, Isabelle and Cédric.

Dr. Tamara Franz-Odendaal

*Associate Professor of Biology, Mount Saint Vincent University
NSERC Chair for Women in Science and Engineering, Atlantic Region*

Dr. Tamara Franz-Odendaal graduated from the University of Cape Town, South Africa with a PhD in Zoology with a focus in paleontology and completed her post-doctoral studies at Dalhousie University in Evolutionary-Developmental Biology. Dr. Franz-Odendaal joined the Mount in 2006 as a Natural Sciences and Engineering Research Council of Canada (NSERC) University Faculty award recipient (2006-2011) and has since launched an active productive research program as a morphologist and developmental biologist in the field of skeletal biology. She was the 2013 recipient of the Young Investigators Award in Morphological Sciences by the American Association of Anatomists.



In 2011, Dr. Franz-Odendaal was awarded the NSERC Atlantic Chair for Women in Science and Engineering for the Atlantic Region (WISEatlantic). She is one of five chair holders across Canada that are working to increase the participation of women in science and engineering and to provide role models for women considering careers in these fields. The aim of the WISEatlantic program is to provide junior and senior high school girls access to role models active in the sciences and engineering fields through mentorships, webinars, Girls Get WISE Science Retreats and Summer Camps. Through WISEatlantic, she also supports women in STEM careers through professional development opportunities, such as the WinSETT Leadership Program workshops. Her network has reached about 11,000 students, teachers, academics, professionals etc., and has directly engaged 2440 youth with 212 role models in STEM.

In 2015, she received the Mount's Research Excellence Award for her outstanding contributions to the research community and research climate at Mount Saint Vincent University.

Speakers

Dr. Margaret-Ann Armour

Associate Dean of Science, Diversity at University Alberta

Born in Scotland and educated at Edinburgh University (BSc, MSc), and the University of Alberta (PhD), Margaret-Ann Armour joined the Chemistry Department at the University of Alberta in 1979 and since 2005 has been Associate Dean of Science, Diversity. She has been active in encouraging women to consider careers in the sciences and engineering as a founding member of WISEST (Women in Scholarship, Engineering, Science and Technology) at the University of Alberta in 1981 and currently as President of the Board of the Canadian Centre for Women in Science, Engineering, Trades and Technology, the WinSETT Centre. Dr. Armour has received a number of awards for her research, teaching and outreach activities including a Governor General's Award in Commemoration of the Person's Case, the Montreal Medal of the Chemical Institute of Canada, a 3M teaching fellowship, being twice named one of the top 100 most powerful women in Canada by the Women's Executive Network and being inducted as a member of the Order of Canada in 2006. She has five honorary degree, including one just received from Memorial University of Newfoundland.



Nan Armour

Former Executive Director, Hypatia Association, Halifax, NS

Nan Armour has worked most of her professional life supporting the recruitment, retention and advancement of women in SETT. She is the former Executive Director of the Hypatia Association, former president and current Board member of CCWESTT, a member of the Board of Directors of WinSETT and a member of the Board of Directors of Women Unlimited. She was awarded an honorary Diploma in Trades and Technology by the Nova Scotia Community College and feels very privileged to be included in the Riva Spatz Women's Wall of Honour at Mount Saint Vincent University.



Dr. Stephanie MacQuarrie

Associate Professor, Chemistry, Cape Breton University

In 1996 Dr. MacQuarrie started her academic career at Mount Allison University in Sackville, NB. She completed three years of undergraduate research and published 8 research papers during this time. She completed her PhD in organic chemistry at Virginia Polytechnic Institute and State University. While completing her PhD she discovered a real passion for two things; chemistry and teaching. She decided early on that she would pursue the academic route and become a Chemistry professor.

After receiving her PhD in 2005 she accepted a post-doctoral position at Queen's University in Kingston, ON and in 2009 accepted a position at Cape Breton University as Assistant Professor of Organic Chemistry. Dr. MacQuarrie has a very active research group funded through a 5-year National Science and Engineering Research Council Discovery Grant and multiple industrial research grants (NSERC Engage, Mitacs). Currently, Dr. MacQuarrie has 5 undergraduate students and two post-doctoral researcher working on a variety of projects in her lab.

Dr. MacQuarrie enjoys many avenues of service, but her personal focus is Science outreach and promotion. For the last five springs she has organized and hosted a Women in Science event that was open to women of all ages in the community; this event has been very well received with over 100 participants each year.



Kirsten Tomilson

President/CEO Fourth Monkey Media

Kirsten began her media career 14 years ago as a freelance production assistant on hectic live action television and movie sets. She eventually made the move to become a production coordinator at Collideascope Digital Productions in Halifax. In the animation world she had the opportunity to work on numerous award winning and critically acclaimed series as she scaled the monkey bars upwards earning more responsibility as an associate producer, and eventually as a producer. Always up for a new challenge, Kirsten decided to leave the industry she loved to take on a new role as a video game Producer for HB Studios in Lunenburg. She accepted the challenge of learning an entirely different production model in a new technology sector, quickly rising to the role of Senior Project Manager. After experiencing work-life in a large gaming facility, Kirsten decided to make a sideways swing into a smaller boutique gaming and e-learning environment, acting as Senior Production Manager for Raised Media.



Kirsten's in depth and rounded work experience in media, television, feature films and games gives her a stunning array of skills and attributes any client will find indispensable. She has evolved her career towards serving the interests of her clients and her craft, and she represents the missing link between left-brain artistic creatives and goal-focused executives. Kirsten's professional, positive attitude and her infectious humour make her a joy to work with, and we are proud and fortunate to have her as Fourth Monkey's top banana.

Dr. Sherry Niven

Assistant Director of Science, Fisheries & Oceans Canada (DFO)

Dr. Sherry Niven is the Assistant Director of Science for Fisheries and Oceans Canada (DFO) at the Bedford Institute of Oceanography (BIO) in Dartmouth. Dr. Niven has been employed with the Science Sector of DFO since finishing her PhD in Chemical Oceanography (from Dalhousie) in 1990. For the first 12 years, she worked as a Research Scientist at BIO studying the biogeochemical processes that control the distribution and fate of contaminants in the marine environment. From 2000-2004, she took an assignment with DFO Headquarters in Ottawa where she became involved in a number of government-wide initiatives to enhance the federal research environment. Since 2005, Dr. Niven has been back at BIO as the Assistant Director of Science in the Maritimes Region of DFO where her responsibilities include the oversight of HR. Dr. Niven has a passion for science and an understanding and belief in the value of diversity that guide her work and as a volunteer in science outreach and the promotion of women in SETT.



Dhirendra Shukla, Ph.D., P.Eng.

Chair, Associate Professor

Dr. Dhirendra Shukla has been the Dr. J. Herbert Smith ACOA Chair since September 2009. He did his BEng and MSc in Chemical Engineering and Computing and Performance Engineering from the University of Bradford (UK). Dhirendra worked for several years in the Telecom Sector for Nortel Networks (Canada) in various roles and prior to joining Nortel Networks he worked for Croda International (UK). Dhirendra obtained his MBA from the Telfer School of Management at the University of Ottawa (Canada) and completed his PhD in Entrepreneurial Finance from the University of London in the UK (King's College London). His current research interests are in Venture Capital, Syndication, Entrepreneurship, Corporate Finance, Performance and Governance, and Boards of Directors.



Dhirendra currently teaches Entrepreneurial Finance, Business Planning and Strategy in an Entrepreneurial Environment, Global Engineering, Managing in the Creative Economy, Experiential Learning in Technology Management and Entrepreneurship, Product Design and Development as well as Leadership in an Era of Deep Change.

Doreen Parsons

Manager of Women Unlimited Association

Doreen Parsons is currently the Manager of the Women Unlimited Association. Through her leadership, this organization has supported more than 550 women to explore opportunities and build careers in the trades and technology sectors in Nova Scotia. Doreen has spent much of her lifetime working within women-centred development by building innovative partnerships, programs, enterprises and organizations. Through the Women's Economic Equality Society, she created and led more than 50 community based programs and initiatives, thus supporting more than 7000 women to improve their economic well-being. And, as General Manager of HRDA Enterprises Ltd., she led one of the oldest CED organizations in North America, operating seven social purpose enterprises, which provided employment and training for more than 6500 local citizens.



Doreen is a Director of the Nova Scotia Apprenticeship Agency, an Advisory Committee member of the Canadian Centre for Women's Economic Development, a Steering Committee member of the Irving Shipbuilding Centre of Excellence, past council member of the Nova Scotia Advisory Council on the Status of Women, and one of the founding members of the Canadian Women's CED Council.

Michael Hanrahan, Guest Speaker, WinSETT Workshop

President, petroforma laboratories

Michael Hanrahan is the President and founder of petroforma laboratories in St. John's, Newfoundland and Labrador. After an acquisition in early 2014 petroforma laboratories became the largest commercial lab in the province serving the energy, food, fisheries, mining and environmental sectors. petroforma has a gender balanced and ethnically diverse workplace providing fulfilling career opportunities to men and women from five continents – thereby, delivering on one of the Company's core human resource values.



Michael has held leadership roles in both the public and private sector and been part of the management team on two of the largest energy projects in Atlantic Canada. Michael sits as a Director of the Norwegian-head quartered Glamox and Singapore-owned Swire Pacific Offshore Canada Limited. He has advised the Senate Committee on Energy, Bank of Canada, and the National Energy Board.

In May 2015, Michael was named as one of Atlantic Business Magazine's Top 50 CEOs in Atlantic Canada.

Michael has pursued studies and executive development courses at Memorial University of Newfoundland, McGill University, York University, Rutgers University and Babson College.

Facilitators

Donna F. Clark – WinSETT workshop and Conference Facilitator

Leadership Partner, Courage Group International

Donna Clark, CMC, ACC, Leadership Partner, Courage Group International is committed to developing the capacity of individuals to lead with courage and compassion and create life nurturing, high performing organizations. Donna brings a combination of executive experience and 19 years of private practice in leadership and organizational development, executive coaching and conflict transformation.



Donna supports clients in discerning and creating the future they desire for their lives and their organizations and developing their leadership and strategic actions to get there. She has degrees in science, education and business and is certified from the Newfield Network Coach Training Program, WEL-Systems® Institute and is a Registered Practitioner in Alternative Dispute Resolution.

Clients say she works with enthusiasm, high energy, an engaging and innovative style, and authentic presence in her facilitation. She has an ability to create conversational space that inspires learning and supports a group in achieving results beyond their expectations. Donna is the Maritimes facilitator for the WinSETT Centre Women in SETT Leadership Program. Since 1991 Donna has worked significantly on workplace culture change to increase the participation of women in SETT, including the 2012 CCWESTT conference and policy forum in Halifax, NS, and several initiatives for the Atlantic NSERC Chair for Women in Science and Engineering.

Shari Graydon – Op Ed Workshop Facilitator

Founder, Informed Opinions

An award-winning author, educator and advocate, Shari Graydon founded and leads Informed Opinions, amplifying women's voices to bridge the gender gap in public discourse. Previously, she taught communications at SFU, wrote regular commentary for the Vancouver Sun and CBC, served as press secretary to a premier, and as president of MediaWatch. Shari was named one of Canada's Top 100 Most Powerful Women by WXN in 2006 and received the Governor General's Award in Commemoration of the Persons' Case for her advocacy work on behalf of women the following year.



Corrie Melanson – Graphic Recording

See Meaning

Corrie Melanson of See Meaning is an experienced process facilitator, trainer, and graphic recorder based in Halifax, NS. As a graphic recorder, Corrie listens intently to capture key messages and outcomes, propelling group work to a new level of understanding and action. Her work with participants maximizes group dynamics, validates different learning styles, interests, and opinions while focusing on key objectives and outcomes.



APPENDIX FIVE: ATTRACTING & RETAINING TOP SETT TALENT

Attracting & Retaining Top SETT Talent:

(SETT: Science, Engineering, Trades & Technology)

A lead up to the Atlantic Connections Conference

June 4-5, 2015 at Mount Allison University: <http://atlanticconnections.ca/>

A Workshop on Understanding and Creating Gender Inclusive Workplaces

Who: Managers, leaders, and HR professionals responsible for hiring, retaining and motivating a diverse talented workforce

What: A half day workshop for business leaders in science, engineering, and technology based organisations. The Canadian Centre for Women in Science, Engineering, Trades and Technology will deliver an interactive workshop module designed to increase awareness of the factors that influence the success of women in their organisations, assess current workplace conditions, & share effective strategies to attract, support, & retain talented women

Where: Avard-Dixon Building, Room 120
Mount Allison University
Sackville, New Brunswick

Register: www.genderinclusiveworkshop.eventbrite.ca

Cost: \$185 per participant

Inquiries: 506.444.2444 or mseagrave@bionb.org

June 3, 2015
1:00 – 5:00 PM
Nutrition Break Provided

Centre for Talent and Innovation research shows:

- An inherently diverse workforce can spur innovation.
 - Leadership lacking diversity results in fewer ideas to market.

In 2011, women were 48% of the Canadian work force, but only 13% of engineers, and 21% of technical positions related to science and engineering.

Women are only 14.5% of the Financial Post's top 500 Boards; the 5 largest banks in Canada lead with 29% women.

Women represent an untapped talent that this country can ill afford to lose.



Énergie NB Power

This event brought to you by:



NBWIEG

New Brunswick Women in Engineering and Geoscience

Winsett Centre

Canadian Centre for Women in Science, Engineering, Trades and Technology

NBWICT
New Brunswick Women in ICT

ENGINEERS
GEOSCIENTISTS
New Brunswick



INGÉNIEURS
GÉOSCIENTIFIQUES
Nouveau-Brunswick

venn

APPENDIX SIX: PERSONAL JOURNEY WORLD CAFÉ TABLE NOTES

WHAT'S WORKING?

Finding your voice

- We are talking about it!
- Women are talking to each other, listening & connecting
- Safe spaces to share challenges – allowing conversations
- The sharing of impactful stories
- Being more vocal

Networking

- Women working together
- New ways of networking (technology)
- Positivity

Communication

- Allow for critical discussion
- Environments where people support and train each other, use humour to build each other up, are better for women too.

Mentorship/role models

- Attracting women to SETT
- Strong female role models
- WISE summer work placements targeting young girls. Outreach program.
- I see single women and career women with children...they are mentors.
- Role models more prevalent
- Visuals on promotional posters

Flexibility

- There is flexibility in academics

Engaging Girls

- Math at undergraduate level & math camps!
- Engaging girls (schools) also reaches boys, parents, community
- Reach children at early age

Good models

- Good models exist – Techsploration, Women Unlimited.

Supporting women

- Women supporting women!
- Strong support systems
- Collective empowerment – be inspired

Parental leave

- Millennial thinking – not all work; importance of family
- Allowed to take maternity leave.

Champions across sectors

- Finding champions (Hanrahan) across sectors.
- Men who stand-up for what they think is right.
- Direct recruitment, government requirement directives to hire more women.
- Stronger desire for diversity
- Awareness – strategic promotion initiatives

Support of Leadership

- New policies
- Promotion of the underrepresented group
- Policy changes
- Leadership on board. Able to listen to concerns about workplace culture & change.
- Enrollment & recruiting getting better

WHAT ARE THE CHALLENGES?

Bias

- Bias is the big issue
- Need to include men in the conversation
- Stereotypes
- ‘Male’ standards of excellence in hiring, tenure, promotion
- Women judged by a different meter – double standard!
- Systemic, unrecognized biases
- Difference in communication styles
- Feminization of poverty
- Society – perception is not changing fast enough. Bias in traditional and non-traditional fields

Clear goals

- Turn 10 year (engineering) mark to a positive planning milestone, not as an endpoint.

Advancement and leadership

- Competition between women...afraid to be seen as 'advantaged'
- To succeed you have to be crude, have grit, be 'masculine' to prove yourself

Change image of SETT

- Not enough role models, need more good ones
- People don't always see how our fields help society.

Supporting young women

- Finding meaningful mentors
- Learning to teach things that seem obvious or natural. Aptitude helps us welcome everyone but it's hard to teach well...

Overcoming obstacles

- Slow systemic changes/overall poor system – better social policies
- There is no end. Improvement is continuous.
- Men as partners in this challenge
- Demographics
- Girls learn as early as elementary school that they dislike/are bad at math
- Granting agencies
- Liabilities
- Transitions

Workplaces that work – Policy not always practice

- Policies not communicated
- Managers don't know how to enforce diversity policies constructively.
- Have to constantly prove yourself.
- Macho or female-excluding workplace culture
- Connecting what one learns at school to real jobs in SETT
- Standing out in the space
- Harassment
- Tokenism

No right time to have kids – still apologizing

- No right time to have kids (wisdom in retrospect)
- Having children along the way
- Where is the balance?

- Introducing students to the idea that women can balance family & work life, and strategies.
- More supports for parental responsibilities
- Pregnancy – too personal to talk about with professors, advisors but your personal life affects your work...it's important to share.
- Changing work culture/attitudes regarding pregnancy and family
- Time management
- Work-life balance
- Being a parent in non-traditional roles
- Change merit systems to not negatively influence persons taking family leave

Recruitment and retention

- Female faculty still small (e.g. at Mount Allison)
- Biology approaching opposite problem
- Getting employed in SETT, and retention
- The stigma attached to certain fields
- Retention in school, in employment
- Getting past plateaus in number of women in a field
- Industry involvement & long term commitment
- Females 5% trades on PEI

WHAT STANDS OUT?

Power of Stories/Women's Experiences

- Personal stories
- Sense of isolation and fear, anxiety, stress
- Women ostracized and shamed, especially by other women
- The power of stories and dialogue
- Passage of information

Lack of Progress – Systemic Challenges

- We have not really moved forward.
- Generation after generation women/people forced into molds
- She is the CEO!
- Still breaking ground...
- Routine things most women would expect in life were problems

Role of family/balance

- Courage to prioritize family, shared value with husband
- Role of family
- Impact on women due to accommodations needed in some positions due to pregnancy
- Importance of support systems (family, partner, network)
- Stories of pregnancy with grade school/postdocs
- Family/career choice STILL TODAY
- Having children while developing your career

Careers in SETT / options

- Determination
- Hard work
- Lack of role models
- Didn't notice no female faculty.
- Mentors/role models
- Lack of Knowledge about professional options with science training
- Getting the message out about 'coding' or other careers younger makes a difference

Power of Women

- 70% game purchases/decisions are by women.
- Collective Empowerment
- Determination, entering fields with few women
- Bootstrapped company
- Resourcefulness
- Courage to strike out on her own

WHAT STORIES DO YOU BRING?

Participation of Women in SETT/Retention and Advancement

- Life as Engineer was good for about 10 years (honeymoon).
- 20% women Computer Science students
- 1st female student for PhD advisor
- Bio-chem 25%
- Etching out a place as the only student (of 30) who didn't have a job at graduation (top student)
- Pre-1984 used to be more opportunities for girls to start with computers earlier
- Came into military later (about 38 yrs old) I chose reserve force

Networks for Support

- Recharging new + reconnections

- Stories of awareness

Diverse workplaces work for all

- Workplaces that are healthier and more supportive are better for women but better for men too.
- Start meetings with diversity message

Role models

- Importance of female role models
- Presentations of possible fields in high school; being able to see yourself there
- Influence of parents, mothers, families
- Engaging young girls
- Importance of community support for life/work balance, for alternative mentorship/role models
- Women don't have to be masculine to be powerful. Powerful women can be huggers

Work/Family Stories

- Female faculty with no children
- Scientist + mother = role model
- No apologies required for career and life/motherhood
- Different experiences with when we had children
- Importance of support from husbands
- Resistance to alternative work arrangements
- Poorly defined role (shoved into HR/Admin) as compensation for being a mom (\$ loss)
- 1970's decided not to have children; sacrifices would have been mine.
- DID put career first, postponing family life.

APPENDIX SEVEN: ORGANIZATIONAL & SYSTEM CHANGE WORLD CAFÉ TABLE NOTES

WHAT CHANGES ARE YOU SEEING & HEARING?	WHAT MAKES THIS POSSIBLE?
<ul style="list-style-type: none"> • Workplace violence prevention policy • Engaging men and boys in ending violence against women and girls • Started women in engineering society 	<ul style="list-style-type: none"> • Encourage and acceptance of diversity & its benefits. • Groundbreakers are needed as well as advocacy/communication so people are more accepting of the humanness of all of us. • Build human connections, break down sexism, racism barriers • Women’s groups work and advocate against racism and classism not just sexism • Leadership from people in underrepresented groups, participation by people in overrepresented groups • Recognition that change is needed • Managers need support in how to enforce discrimination policies • Don’t assume that women in leadership positions are automatically safer. Real allies can be anywhere, look for supportive behavior.
<ul style="list-style-type: none"> • New partnerships, everyone benefitting • Women entering trades • More companies addressing diversity (Emera) • Huge impact on women and their families • Role models & real success stories 	<ul style="list-style-type: none"> • Collaborative partnerships • Relationships and trust • Using experiences of women to inform • Legislation and requirements • Commitment and leadership (at range of levels) • Accountability • Long-term strategy and plan (and commitment) • Compelling business case and strategy to move forward. • Intentional partnerships
	<ul style="list-style-type: none"> • Concrete actions and goals • Targets and action plans
<ul style="list-style-type: none"> • Breaking of cycle of poverty • Motivation by no wait-list • Increasing visibility of women in trades 	

<ul style="list-style-type: none"> • Encouraging young girls (not forcing!) 	
<ul style="list-style-type: none"> • New PEI premier, new ideas 	<ul style="list-style-type: none"> • Explicit leadership/modeling (government, employers, etc.) around diversity
<ul style="list-style-type: none"> • More emphasis on trades and technology in high school 	<ul style="list-style-type: none"> • Recruitment and retention programs.
<ul style="list-style-type: none"> • Leadership • Policies • education 	<ul style="list-style-type: none"> • Respectful relationships • Identify champions and find common goals
<ul style="list-style-type: none"> • Plateaus all over. Computer science is the worst • NSERC CWSE's exist and progress • Increasing visibility and awareness by all • Willing, focused partnership with common values and goals • Better measurement tools ex. M. Women's diversity report card, becoming leaders handbook 	<ul style="list-style-type: none"> • Collaborations, communications, discussion
<ul style="list-style-type: none"> • Initiatives that support women entering trades, technology, science, via support for school employment/childcare • Men and women are seeing the issues • More female leaders (Lean In) • Not having to 'fit in', value of being an individual 	<ul style="list-style-type: none"> • Money, human capital, and investments • Being aware that diversity is beneficial to the trades, technology, science sectors • Role models being more visible
<ul style="list-style-type: none"> • Policies • Equity in hiring processes • Parental leave & childcare policy & practice 	
<ul style="list-style-type: none"> • Need for skilled labour recognize value • Industry commitment and involvement • Policies and formal requirements for diversity • Guaranteed seats • More respectful workplace for everyone • Supportive behavior by managers and leaders • Explicit leadership smart thing to do • Welcome men's voices • Engaging men and boys in fighting violence against women 	<ul style="list-style-type: none"> • Workplace culture • Perseverance • Diversity plan required • Respectful relationship • Foundation work already in place • Cultivating relationships • Long term commitment • Taking the long view • Job shadowing builds networks • Common goals, vision • Government departments collaborate • Having a champion • Make sure women are invited • New partnerships • Supportive managers
<ul style="list-style-type: none"> • More conversations • Recognizing that there is a problem 	<ul style="list-style-type: none"> • Conversations • Working in collaboration to make change

<ul style="list-style-type: none"> • Companies are recognizing the benefits of diversity • Increased funding and scholarships for women • Increased outreach efforts 	
<ul style="list-style-type: none"> • It's the smart thing to do • Starting to see this in the media, TPX companies, etc. • More story sharing = more courage 	<ul style="list-style-type: none"> • Good policy • Clearly defined goals • Intentional partnerships • Diversity is an explicit agenda •
<ul style="list-style-type: none"> • Women's washrooms now available • Women's uniforms which now fit • Not seeing changes as graduate student 	<ul style="list-style-type: none"> • Programs like Women Unlimited and Trade Horizons • Women who have benefited from the programs are now working to help next generation • Conferences like this which allow networking and allow learning about possibilities to provide support • Welding club at junior high school – rural schools do not have this
<ul style="list-style-type: none"> • Organizations like Women Unlimited, Techsploration • Better exposure to role models at a young age • The 'less-traditional' areas such as computer science, environmental, bio are not experiencing the lower representation as the more traditional sciences and engineering fields • Increase in number of women entering SETT programs but not necessarily finishing the program • Increase in parental leave for men 	<ul style="list-style-type: none"> • Opportunities to talk about equity in a respectful way • Having a diversity person on every panel
<ul style="list-style-type: none"> • More open to discussing issues • Harder to get funding for women's organizations • More focus on women on boards 	<ul style="list-style-type: none"> • Adapting language • Collaborations and getting people together • Cross-field communication • Involvement of non-profit organizations to collaborate! • Need to continue to inform one another

APPENDIX EIGHT: QUESTIONS AND POSSIBILITIES FOR A NEW STORY – WORLD CAFÉ POST-IT NOTES

What questions are arising for me as a result of what I am hearing?

What possibilities for a new story are emerging?

Telling stories

- There's a little bit of assumption of lack-of-knowledge at these sorts of events but the snippets of stories I hear indicate lots of collective expertise. How can we better share our stories & identify expertise & current knowledge?
- The critical impact of telling stories that help those who aren't yet allies to understand the bigger picture, see different possibilities emerging.

Women coming together informally

- What piece of advice do you have for women beginning their career in SETT jobs?
- It is so important to take the time to get together and share what is working, ideas, stories – we can learn so much from each other.
- Power of cohorts, collegiality, women coming together informally to share experiences, strategize, collaborate...
- Life: Is it all about career? Isn't career just a part of life? Why we have to think so hard?

Learn from one another – share best practices – use what's available and tools you have

- Systemic change is difficult – how can we adapt successful practices to be effective in other settings?
- How do we work together to keep moving forward, to learn from the experiences & successes of others?
- How do we form NSCC-like partnerships in a university setting where there is not a direct link to industry/jobs?
- What helps create a movement to promote tradeswomen where tradeswomen are the leaders?
- How do we support & sustain the great work of the non-profit sector organizations & partnerships to effect greater change?
- There are good programs getting funded.
- Take model actions, adapt them to local situations, and use to make a difference.
- No need to re-invent what is already working with new initiatives. Share what works in events like these.
- How can we learn from programs like Women Unlimited to make similar shifts/changes in other sectors? Physical sciences? Physics/math/chemistry.

- Take advice/role models from other countries, e.g. Norway, Jordan - childcare, Athena Swan (UK) – measurement of diversity in workplace
- How to share best practices? What’s working? What are the challenges? Myths – policies

Increase representation of women in SETT - Employment equity

- We ALL need to recognize that we are role models for someone.
- How do we reach the young women in the potential pool? Like Women Unlimited model.
- How do we reach & educate younger women about the possibilities & untrue stereotypes about science, engineering trades, & technology?
- Is high school & university too late to change different interests/confidences by gender?
- Is early education (curriculum) reinforcing or at the least not helping the gender divide? – deeply engrained in society. Girls being ‘afraid’ or not encouraged in math & science?
- Are we ‘targeting’ the right ages to evoke change in getting more women in SETT?
 - Society unfortunately encourages gender differences from very young ages – girls should play with dolls, boys should play with trucks.
- How do we form effective mentoring models?
- How can I better mentor young women?
- How can we promote fostering mentorships? (especially when women are underrepresented in trades, and other SETT jobs)
- Questions – The role academia can play in advancing women in SETT.
- What should my personal priorities be as a mid-career female academic? Where can I be most effective at making or guiding change?
- What do we need to do for young women to keep them in these fields?
- How can you change people’s perceptions? (of being a women in SETT)
- How can we encourage young people to pursue careers despite gender stereotypes?
- How can SETT help international female students to succeed?
- What ethical or cultural changes are needed to get more women involved in science and engineering?

Connect industry and programs for women in NB

- With the current state of the NB government, can apprenticeship do anything? Where will the support come from?
- More proactive and long term dialog needs to happen between NBCC and post-secondary (apprenticeship)

30 by 2030

- What actions can we take to reach the Engineers Canada goal of 30 by 30?

One message more impact

- By collaborating with ONE message we can make a bigger impact.

Diversity plan

- How to we implore leaders to make diversity a top agenda item?
- HR involvement in diversity plans on PE.
 - What possibilities are there for retention support on the island...
- How can we influence existing leadership to “do the smart thing(s)” that support diversity & be open to better understanding of the issues?
- If NFL & Emera can set diversity & inclusion policies (mandated %) for their contractors...why can't NB government do the same with Energy East Pipeline or other industry? Is this happening, if not, why not?
- Diversity plan in my not-for-profit.
- How can we improve workplace environments for ALL people?

Better disseminate data

- We see data that we need to do something...are we doing enough?

Culture change

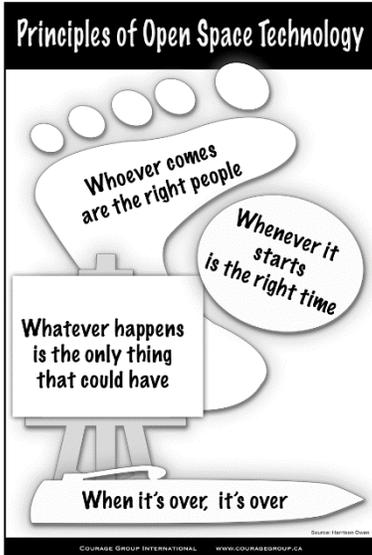
- What can I do to influence change? What strategic coalitions can I form to support policy change higher up?
- Who are the right people to talk to? (a la famous 5)
- What works in helping men see their self-interest in ending sexism?
- How can we motivate women to pursue both career & family choices?
- How can we get more of the ‘over-represented’ on-board & active?
- How do I want to see my future as a women working in these positions?
 - What routes can an organization like this pursue to stimulate talk with allies?
 - How can systemic change be established to introduce women to underrepresented fields?
- How can we empower women into decision-making roles to speed culture change?
- Accountability. (How can we hold policy-holders accountable?) When something goes wrong in a workplace, I feel at fault even if I'm not the problem. I ignore sexist jokes, let people tell me I got my internship because it looks good to hire a girl because I don't want to be that person who's ‘difficult’. How will things change if standing up for yourself turns into labeling yourself difficult to work with? Why isn't it normal to try to make your situation better or follow the rules? Maybe policies are still too new or maybe leaders need to take it more seriously.
- Do we change behavior or the ideas of people first?
- What more can our organization do to support women in any compromising circumstance?

- How do we go about changing ‘societal’ stereotypes?
- Ways to cultivate reluctant partners, to build intentional collaboration.
- What does the country need to do to remove/mitigate the reproduction barrier from the career prospects of women? What are all of the pieces?
- How do we engage ‘the over-represented’ to join the cause?
- Changing social policy to regulate day care or to start public education earlier.
- How to create opportunities despite lack of funding/dismal \$ conditions?
- What will we do differently for real change to happen?
- Things can change.
 - Some systems take a long time to change but they do
 - Sometimes people make one experience harder. Not necessarily the organization
 - Long term commitment to leadership in science
- How to change the language around trades? To profession.

APPENDIX NINE: PARTICIPANT GUIDE - OPEN SPACE TECHNOLOGY

What are the issues and opportunities for women in SETT to take action that will make a difference? How can we Act?

Collaborate? Celebrate? Transform?

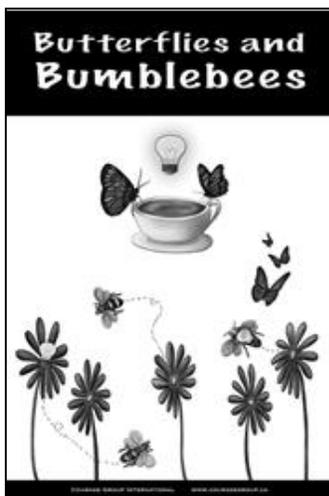
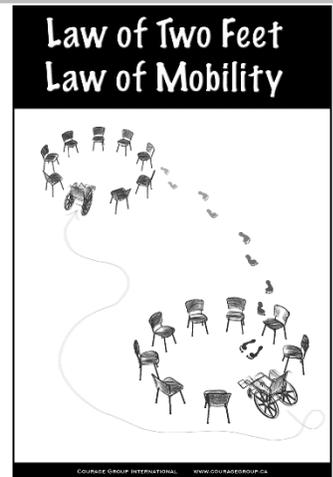


Agenda	
June 4	
7:00 – 9:30 Topics, Round 1 & Evening News	
June 5	
8:30 – 9:00	Morning New & Topics
9:00 – 10:15	Round 2 OST
10:15 – 10:30	Nutrition Break
10:30 – 11:45	Round 3 OST
11:45 – 12:15	Report Finalization
12:15 – 1:15	Lunch and OST Gallery of ACT Reports
1:15 – 2:30	Going out to ACT
2:30	End of Session

Or Choose
Op Ed
Workshop 9:00

Check out the Marketplace - Create Your Personal Agenda and remember.....

Time	Topic	Location of
June 4 – 8:00 pm		
June 5 – 9:00 am		
June 5 – 10:30		



If you are leading a session please be sure to:

- Invite people to introduce themselves and get the topic started.
- Keep a record of discussions and enter them into the report format on a computer in the News Room at the end of the session (or get a digital report form on a USB stick if you/someone in the group wishes to use your own computer, or save to dropbox – see Sally).
- Have each participant put his/her name on the participant list.
- If you have a large group, consider splitting in to two groups so people get more air time and each group produces a report

Be Prepared to be Surprised!!

APPENDIX TEN: OPEN SPACE TECHNOLOGY DISCUSSION REPORTS

Round 1 Open Space Conversations	52
1.1 Finding Family –Work-Life Balance	52
1.2 What difference do female voices make? How to amplify?.....	53
1.3 Ways to engage girls in SETT	54
1.4 Doing science as if people matter, marrying SETT and social justice.....	55
1.5 Early mobility between science, engineering, trades and technology	56
1.6 Increase enrollment of women in engineering – to meet the 30 by 30 Goal.....	57
1.7 Addressing math and physics phobias	58
Round 2 Open Space Conversations	59
2.1 Women in SETT Leadership	59
2.2 What advice would you give to your younger self?	60
2.3 Changing Workplace Culture.....	61
2.4 Learning to self-advocate.....	65
2.5 Lobbying government for action now (or soon?).....	66
2.6 Supporting women in Academia.....	68
Round 3 Open Space Conversations	69
3.1 Connecting government, industry and educational bodies for women in trades.	69
3.2 Sharing Our Stories.....	70
3.3 Un-Silencing of Gender and Sexuality Minorities	71
3.4 Gender stereotypes – especially those that are implicit in nature	73

ROUND 1 OPEN SPACE CONVERSATIONS

1.1 FINDING FAMILY –WORK-LIFE BALANCE

Highlights of Discussion:

- Guilt associated with trying to find work life balance including guilt about not being at home when other Mom's are at home or not being able to get the kids when they are ill, or missing sports/extracurricular events.
- Going back to school when your baby is only small in order to move career forward.
- How can young women in this group learn from our experiences?
- Is there freedom to have a family and/or life in academics?
- Children help to improve time management skills.
- Doesn't have to be children – can be other things you like to enjoy in your life.
- Some of our experiences were negative and difficult, but more than discussing those negativities, it is important to move forward and learn and find solutions.

Action Ideas:

- If you are going to share your life with someone – find a true partner, someone you feel is equal and treats you as an equal. “Marry a parent not a babysitter”
- Find positive experiences to learn from
- Focus on what matters in your life and you may have to let some things go (ie Laundry). Once you have figured out what matters to you – it is a lot easier to prioritize.
- Have a community of friends/family etc to help you and not being afraid to ask for help – it is not a sign of weakness, but rather courage and strength.

1.2 WHAT DIFFERENCE DO FEMALE VOICES MAKE? HOW TO AMPLIFY?

Highlights of Discussion:

- When women's voices are present, the conversations change
- Men's voices outnumber women's 4-5 to 1
- Fewer op-ed submissions from women
- Women don't want to give interviews but this is the gateway to the media, the pathway to an amplified voice, and the initial action to create positive change.
- Nobody is going to invite you to an op-ed, you must choose to engage yourself in issues that matter.
- Informed opinions website has tips and resources to help show you how to write hooks and get others to care about what you care about.
- You must position yourself as an expert on the topic. People may disagree, particularly, on topics regarding marginalized citizens; however, you must be vocal, contribute, and ensure that your voice is heard. Prepare for the opinions that may be in opposition to yours.
- There is no "best" person for the interview. You are the best do not decline the reporter for the guy next store.
- How to counter stereotypes of women in SETT careers.
- Are op-eds still relevant? Not as much, however, you can repurpose them (e.g. blogs, social media, etc.)

Action Ideas:

- Have someone with a large Twitter following based in your community facilitate a seminar on effective Tweeting and social media use
- Start a Women in Engineering blog
- Find resources and tips for www.informedopinions.org
- Re-tweet tweets that resonate with you, support the larger cause
- Tamara get Shari to do workshops in Nova Scotia
- Follow @informedops and @WISEatlantic on twitter
- Develop a shared blog among women in SETT (WISEatlantic)
- Tip: ask questions/share an opinion in forums or conferences as much as possible. You are as much as other people know you.
- Email the reporter who spoke on a topic that you are passionate about.
- Seek collaborators to help you write op-eds if you personally cannot.
- Encourage friends and colleagues to share your piece (e.g. op-ed or blog post) or ask them to add positive comments.
- Email the editor and say THANK YOU for _____ reporter's piece, "I greatly appreciate their insight and informed opinion".

1.3 WAYS TO ENGAGE GIRLS IN SETT

Highlights of Discussion:

- Huge influence of parents for those ideas of women's and men's careers
- Exposure to diverse professions along with requirements for such
- Too Late??? High school girls already have made decisions about their careers MUST REACH GIRLS EARLIER
- Influence Guidance counselors, parents and teachers to Diminish "stereotypes"
- No more channeling into "Traditional" male carriers (nurses, doctors)
- Camp Courage
- Problems with funding and resources
- Without exploration will look to authorities to tell young women "what they are supposed to be"

Action Ideas:

- Look at K-5
- Camps (grades 7, 8 and 9) for women in trades
- Instructors that are positive mentors
- Exposure to trades in junior high
- Role Models
- Let's Talk Science links with trades and engineering
- Create a network of women that would provide mentorship (ex Database). Contact Tina Kelly.
- Partnerships with industry for funding and or support
- Use videos, social media to engage girls and promote STEM careers
- Let girls know that you **can** have a career and a family
- We have the power if we use it correctly
- Promote message about gender based toys website "Let toys be toys"
- Model the NF Women's Office of Apprenticeship
- Job shadowing

Post-It Note Comments:

- Educating Educators: teacher conferences, limited resources in schools
- Check out Women in Action videos by Techsploration and share them widely.
- Sign-up as a role model with WISEatlantic and WRDC
- WRDC STEM Series for Girls, Techsploration NL, Gusto, Tech Tours, Welding camp.
- Hands-on = confidence. Girls only, role models.
- WISEatlantic website has resource webpages for teachers, role models, parents, and students. For example, we list all known SETT related summer camps under provincial headers, as well as lots of other resources.

1.4 DOING SCIENCE AS IF PEOPLE MATTER, MARRYING SETT AND SOCIAL JUSTICE

Highlights of Discussion:

- Academia doesn't appear to value socially responsible SETT, it's harder to obtain funding for and seen as less legitimate.
- Funders want to see outputs (preferably profitable outputs)
- Doing policy work is good BUT it is often political and thus can be dangerous.
- We need more language around tenure and promotion that recognizes socially responsible research and relevance to social justice/social issues. (This is especially important because we are looking at educating the social justice/me to we generation! Social relevance and social justice focus adds value by attracting and retaining students!)
- Socially responsible graduates are employable graduates.
- **By marketing and promoting SETT careers as being socially responsible and having social relevance we will attract and retain more females. By attracting and retaining more females we will allow SETT careers to become more socially responsible and address social issues.**
- Are we doing it and not realizing it? (ie bringing in relevant social issues when teaching such as Dec 6th)
- Teaching has a lot of value; we can promote social responsibility through how we teach.

Action Ideas:

- We NEED to talk about how SETT matters; we need to present it as having a social connection.
- Shifting the discussion in academia to embrace social responsibility and socially conscious research ESPECIALLY in discussions about tenure and promotion (including promoting the value that it adds by attracting students)
- Making and disseminating information on the value of SETT (ie featuring the difference that you can make in a SETT career)
- Giving students more exposure to projects with a community focus.
- Embracing service learning in SETT.

1.5 EARLY MOBILITY BETWEEN SCIENCE, ENGINEERING, TRADES AND TECHNOLOGY

Highlights of the Discussion:

- align with their interests sooner.
 - The concept is sane and necessary.
 - An effective tool would be useful
- Certain trades are oversubscribed (e.g. electrician) while others are undersubscribed (electronics). Students interested in specialty areas of electrical engineering could find electronics quite satisfying. Vice versa is also true. Collaborative recruitment between colleges and universities could be more effective than currently, the ability of women to choose occupations among the fields of science, engineering, trades and technology can be slow and ad hoc. It is not unusual for women to take meandering paths before finding or settling on a final or almost final choice.
 - Would access to relevant information on all fields (i.e. science, engineering, trades, and technology) **at the same time** be an effective way for women to find occupations that better independent efforts.
 - Potential obstacles:
 - Culture clash (e.g. Engineering versus Trades)
 - Recognition of prior experience for transfer credits
 - Consolidated information make the informed career selection more accessible to the most vulnerable (i.e. women who could not leave their home community due to lack of confidence, lack of money, need for family support)
- CareerLinks is a web-based, career planning tool being developed by WISE NL. The database driven tool is informed by the real experiences of women practitioners in SETT. Many new applications and enhancements for the tool beyond the planned first release content were suggested.

Action Ideas:

- Continue with development of CareerLinks considering suggestions noted.

1.6 INCREASE ENROLLMENT OF WOMEN IN ENGINEERING – TO MEET THE 30 BY 30 GOAL

Highlights of Discussion:

- To meet the Engineers Canada 30 by 30 goal, we need to attract more female students to engineering programs – at least 30%, preferably more.
- Challenge in NB - Programs are filling without strategic consideration of diversity (women under-represented). Change in approach/ strategy needed.
- Work to change the perception of engineering – make the message more relevant to society. Address the relevance of the profession to young women
- Still trying to find our Brand/ Our Story

Action Ideas:

- Work with people to achieve the vision
- Recruit from other university programs in addition to high schools.
- Telling stories – what can you do with an engineering degree? Make your dreams come true.
- Doing Engineering as if people matter.
- Careers that matter profiles.
- Engineers as community builders.

How can I make a difference? – Become an Engineer

- Student video contest – why I want to be an engineer
- Techsploration videos – What I like about my work
- WISEatlantic role model videos.
- Dalhousie University – planning to hold social event with guidance councillors and science teachers to tell stories about engineering
- Aggressively follow up with women who show an interest in engineering faculty – invite them to join the program – show them their value
- Create an “iron pin” ceremony in first year engineering to increase retention and engagement in the program and welcome them into the profession, feeling of belonging and sense of respect for their profession, their peers, etc.
- Experiential learning in universities. Think outside the box with the engineering program – co-op programs, project based learning.
- Set bold goals.
- Financial assistance and entrance scholarships for students.
- Links from engineering program websites to video stories – Techsploration and WISEatlantic

1.7 ADDRESSING MATH AND PHYSICS PHOBIAS

Highlights of Discussion:

- The way we teach math and physics may not be the best
- Teaching vs. learning
- Ethical and cultural issues
- Lack of role models
- Girls lack of self-confidence; avoid hard subjects
- Female elementary school teachers sometimes lack self-confidence teaching math

Action Ideas:

- Change teaching methods
- Use more practical examples
- Show how scientists help people
- Improve image of female scientists
- Improve math education of elementary school teachers

Post-It Note Comments:

- AARMS in Nova Scotia looks at math outreach and education.
- Science Education for New Civic Engagements and Responsibilities (SENCER) model courses

ROUND 2 OPEN SPACE CONVERSATIONS

2.1 WOMEN IN SETT LEADERSHIP

Highlights of Discussion:

- A change in workplace culture will bring more women; more women will bring a workplace culture.
- Women making decisions not to take leadership roles, even though they are capable, is a large barrier.
- Barriers: Life balance, assumptions and perceptions, fitting the mold, power hierarchy leadership.

Action Ideas:

- Stick to your values as a leader.
- Share your vision with your group.
- Soft leadership IS effective leadership.
- Speaking to people as if they matter.
- Talking with leaders.
- Recognize that barriers we face are external, and are not caused by us.
- Negotiation and Mentorship!

2.2 WHAT ADVICE WOULD YOU GIVE TO YOUR YOUNGER SELF?

Highlights of Discussion:

Giving advice provides opportunity for introspection, as well as learning from others' experiences. Many great pieces of advice from the group, overall themes would be:

- Solidarity is crucial, other women have similar thoughts and fears, it's important to discuss them
- Learn from your own advice, listen to yourself
- Find out what's important to you, things you value, self-awareness
- Stop comparing yourself to others, accept and celebrate successes as well as imperfections

Action Ideas:

Things to try:

- Be honest with yourself, but be kind. Treat yourself the way you would treat a close friend
- Make yourself a priority. Learn to say no without feeling guilty
- Be comfortable with being vulnerable
 - open discussions are a great platform to share thoughts and ideas
 - create a safe space to have more discussions like this, could be conversations with friends or workshops with other women in SETT

2.3 CHANGING WORKPLACE CULTURE

Highlights of Discussion:

Four topics:

- A. What is workplace culture?
- B. Impacts
- C. Personal strategies
- D. Systemic change

A. Workplace culture includes:

1. Sexism, racism, other forms of oppression or discrimination; broader culture: from micro-aggressions to severe cases of harassment, discrimination, and violence
 - i. Eg. discomfort due to societal issues affecting women's participation in after-hours activities that are technically optional but do affect career advancement
 - ii. Stereotypes about eg. women's roles from broader culture affecting women's roles in the workplace
 - iii. Role modeling and mentorship provision can be a positive experience, but can also be an extra expectation that limits time for other tasks necessary for career progress.
 - iv. What would it mean for men to be good role models for women? Related to cultural stereotypes and expectations about men
 - v. Bring in discussions of non-binary gender, related to gender roles and expectations. This could take the pressure off the "men versus women" gender role conversation. Eg., what if men didn't need to prove that they were "real" men?
2. Inter-sector mobility (eg. between levels of academia, between different professions): lack of mobility most harms groups least represented in the areas
3. Isolation
4. Lack of training, mentoring, advancement
5. Work scheduling, manner of assessment of job performance

B. Workplace culture impacts:

1. Women and other under-represented groups:

- i. Women in trades don't retire in the field
 - ii. Mental health
- 2. Effectiveness of recruitment of women and other under-represented groups.
- 3. Improvement in workplace culture is better for everyone
 - i. More role options, better workplace for all, better work-life balance for all
 - ii. Increased productivity, increases bottom line for employers
 - iii. Decreased turnover, decreased cost for recruitment, hiring, and training

C. Personal strategies are damage control, not a permanent solution

- 1. Bringing women together to talk about experiences in a safe, outside environment
 - i. Hypatia project, outreach activities to girls combining gender equity workshops with math and science workshops, etc.
 - ii. Identifying community and allies.
 - iii. Identifying shared concerns, legitimizing concerns, identifying cultural and systemic problems; helping women identify patterns rather than viewing all issues as individual cases.
 - iv. Need to ask the right questions; provide safe space (outside group can elicit more and/or different information and stories than managers in a workplace).
 - v. The "overcoming obstacles" narrative can be a booby trap, not just an inspiration: the flip side of "girls can do anything" message is the implication that lack of success is due to individual not trying hard enough; there needs to be an awareness of systemic issues, not just individual narratives.
 - vi. Mentorship programs perhaps not as important as previously thought
 - Formal mentoring not identified as a priority by women in Hypatia-run groups; they wanted informal networks instead
 - In one workplace mentorship program, formally-assigned mentors provided resources, were available to talk; contact was mentee-driven, 6-month term
 - One possible role of mentors: proactively make mentees aware of opportunities, encourage them to take opportunities, career development planning and advice
 - Discussing shared concerns and strategies is another possible mentor role, can also be served by peer networks

- A third area: technical mentoring (either formal, or collaborative workplaces)
- Mentorship needs to be attuned to individual needs, interests, and career paths

D. Systemic change most important

1. Obstacles include:
 - i. Lack of knowledge of issues and problems by employers
 - ii. Lack of training of managers in how to address eg. other employees engaging in harassment; how to give constructive feedback while still being encouraging to members of an identified equity group
2. Workshops for employers
 - i. Focused on bystander intervention strategies, post-hoc response to one's own behavior that had unintended negative effects: that is, focused on the basically well-meaning individuals
 - ii. Outside organization to create report identifying big issues, bring to senior management so that individuals don't have to
 - iii. Equity policies, mission statements, or similar documents can be strategically helpful: work with an organization's stated self-identified goals
3. Need to develop metrics for improvements; on a continuum with student assessment
4. Need better management training
5. Larger organizations tend to want to develop workshops or manager training in-house, assuming that they must have the expertise somewhere in-house; but outside groups such as women's organizations often specialize in this and can easily provide tailored trainings and workshops, that can also sometimes be more effective due to outside perspective and better ability of external group to create safe spaces for negatively affected people to share their stories and issues
6. Language changes periodically:
 - i. Employment equity -> diversity, harassment -> respectful workplaces
 - ii. Language like respectful workplaces expands both the benefit and the responsibility for cultural change to all, which can be helpful and strategic (as well as accurate)
 - iii. We worry that language like diversity can be a euphemism to conceal serious but more contentious issues like racism

- iv. Acknowledging that changing workplace culture is a political goal, we do have a structural rather than individual analysis, relates to feminism, anti-racism, etc. Not connecting issues of workplace culture to broader systemic issues hinders work toward solutions. At the same time, strategic use of language can be important in inviting all necessary people and groups into dialogue and opening up space for discussion, communication, and understanding.

Action Ideas:

- More discussion about systemic change!
- Develop metrics to assess systemic change (some already in development).
- More and better visibility/availability of workplace equity training and manager training.
- More opportunities for women, others to develop informal, peer networks to identify issues, shared concerns, systemic problems.
- Broader cultural change around work-life balance, workload expectations. Broader cultural understanding and acceptance of systemic rather than individual analyses of cultural issues. - Not just a women in science issue, so connecting with other groups working on these issues would be helpful

2.4 LEARNING TO SELF-ADVOCATE

Highlights of Discussion:

Challenges: women are often people pleasers and don't want to cause a fuss. We also often apologise, which undermines our skill and what we have accomplished. Putting oneself forward is uncomfortable.

Action Ideas:

We need to identify our skills and strengths, and find concrete ways to identify and demonstrate these (e.g., with examples). We discussed learned to be direct in communication—asking for what we need, waiting for answers, using confident tones of voice. We discussed that one effective way to self-advocate was to ask questions (how can I prioritise this new responsibility within this existing list?) and to find data on comparable salary, conditions, and responsibilities so that we're knowledgeable when articulating our needs.

2.5 LOBBYING GOVERNMENT FOR ACTION NOW (OR SOON?)

Highlights of Discussion:

- Importance of setting goals/targets and working towards them, accountability
- How did successes in other provinces (NF/NS and Emera) come to be? What did it take to make it happen, can we learn from others?
- Gender and Diversity Based Analysis, using the tools to highlight performance and governments leading by example.
- Who is the right audience? Who has the power to affect change and how do we approach the issue to get action?

Government:

- The right thing to do/responsibility
- Addresses coming skills gap
- benefits society, social improvement and fit with NB priorities of: fiscal responsibility, improving family life, and job creation
- Industry
- increased retention, less turn-over, loyalty
- Solution to “out west” problem
- The right thing to do, social responsibility
- Case for improved bottom line and productivity of a more diverse workforce
- In order to get more “Women on Boards” you need them in the workforce.

Public

- Countering the “taking jobs from men” mentality
- Build the case and highlight the stats on skills gaps if multiple large projects move forward in Maritimes at the same time (pipeline, mining, oil and gas) and making sure good jobs go to Maritimers
- Countering the “blue collar” stigma in terms of attracting to community college and trades

Action Ideas:

- Build a Strategic Network of Influencers and a collaborative regional lobby representing professions, trades, (SETT) in Maritime region
- Would WinSETT help bring these groups together if there is an interest?

- Write to Atlantic Ministers for the Status of Women about moving increased and demonstrable (accountability) diversity and inclusion as requirement for government contracts.
- Ask CCWESTT conference to host workshop/session/discussion on the topic of government lobby for a specific common goal (to be determined), such as setting goals or lobbying government to set appropriate policy
- Approach NB government about holding companies looking for contracts or doing work in province accountable for increased workforce diversity as conditions of benefits packages, and/or contract terms (i.e. Trans Canada, Northcliff, Irving, etc)

Post-It Note Comments:

- If you need contacts for CCWESTT or WinSETT contact Tamara Franz-Odendaal (email in folders).

2.6 SUPPORTING WOMEN IN ACADEMIA

Highlights of Discussion:

- Women are afraid to put themselves forward out there – for application for promotion.
- We judge ourselves too harshly, we minimise what we've done.
- We don't talk about our successes with each other.
- We should write down our achievements.
- There needs to be more training given to hiring committees – with expertise on gender bias.
- Important to ensure that questions are pre-defined for job interviews to ensure no biases
- Dean's and VPs who support workshops and conferences like this – are very important
- We can support each other more – (this should be an important goal of WISE groups)

Action Ideas:

- Sit on tenure and promotion committees so you can see how others put themselves forward
- Hiring committees: short list of candidates should be sent to equity officer to ensure no biases. Committees should justify why minorities were not shortlisted
- To raise with Deans:
 - Childcare waitlists are dismal (they should put pressure on politicians)
 - Importance of supporting workshops like this and conferences
 - Importance of encouraging individuals to apply for promotion, and to attend conferences such as this
 - What are the principles that govern leaves (who to tell, what is the process, what is expected etc) – impact can be huge! (e.g delay in CFI application)
 - Parental leaves taken by men who then come into work and continue to work doesn't help women
 - Research grants office should advise better on what to write in the “delays” section of the NSERC grant application form, (be quantitative!)
 - Role of mentors to help put dossiers together is very important

ROUND 3 OPEN SPACE CONVERSATIONS

3.1 CONNECTING GOVERNMENT, INDUSTRY AND EDUCATIONAL BODIES FOR WOMEN IN TRADES.

Highlights of Discussion:

- Employers government and education i.e. Irving Partnership, Center of Excellence, Michelin. Critical nature is the business case for hiring women.
- Topic of hiring women on program advisory committee meetings. NFLD legislation best practice example and Emera project brought equity. WRDC helped negotiate.
- Putting the power in the hands of the employer is dangerous partnerships with industry, government, education but you have to start where the jobs are.

Action Ideas:

- PEI govt debate on women's issues.
- Gender guide- identifying key players, what voice will best give the unified voice.
- Opportunity Atlantic Apprenticeship
- Council of Maritime Premiers Table
- Human Resource Associations getting this topic on the table.
- Forming a repository of information on WINSETT site.
- Respectful workplace language invites employers to work with everyone and suits our goals.
- If a company has a diversity or respectful workplace policy use that as an open door.

3.2 SHARING OUR STORIES

Highlights of Discussion:

- We introduced ourselves to each other and talked about our personal journeys to science and math. There were two university faculty members, as well as current undergraduate and graduate students. All had some degree of research experience.
- Some commonalities that we identified among our stories were finding joy in our studies or a passion for a particular topic, early academic success in math or science, and either having a preview of the next stages of academic study and careers or having a well-defined and directed path through exams and courses of study.
- We found a fair amount of variation on the particular paths toward our interest in and participation in science, however. Some participants had many and strong role models and mentors, others did not. Some found their passion in science early, others came to it later. The variation was quite interesting as well as noticing some of our commonalities.

Action Ideas:

Some participants were making plans to continue conversations and networking after the conference. This was a more informal session directed at community-building rather than generating specific action ideas.

Post-It Note Comments:

- The NSERC Chairs for Women in Science and Engineering are working on a book – collecting stories. Contact Tamara Franz-Odenaal, Atlantic Chair.
- WISEatlantic will work on a shared blog site. Follow us on twitter (@WISEatlantic) or Facebook.com/WISEatlantic, to hear when this is launched so that you can share your stories.

3.3 UN-SILENCING OF GENDER AND SEXUALITY MINORITIES

Highlights of Discussion:

- We discussed the disenfranchising of LGBTQ women in our lives and particularly in events around women's issues. Conversations around gender focus only on female/male – no conversation around other gender identities or sexualities. Examples were discussed of feminist mission statements that have little or no mention of LGBTQ issues or realities.
- Non-cisgender and non-heterosexual women experience fear about speaking up openly, even in what is assumed to be a safe and open room. Conversations do not always reflect our realities. An example... discourse around women not feeling comfortable having to act more “masculine” to be successful in SETT careers. Be careful... for some people that is who they are. For a non-gender conforming woman this can feel like a negative message about who she is. Issues for some women might be having to be act more “feminine” than who they are.
- Gender identity and sexuality issues are not often on the agenda of the larger group.
- We talked about the cumulative effect of “white guilt” – the fatigue that comes from always having to reassure and comfort well-intentioned people that we know they are “good people”. If you make a mistake, apologize, learn from it, and move on.
- We are often cautious about coming out. Fear and mistrust result from years of oppression, we don't always recognize safe spaces if they are not explicit. Homophobia and gay-bashing of women in the trades, even non-LGBTQ women, has been used to silence all women, especially those who are LGBTQ.
- Students deal with “accidental” or unconscious transphobia and homophobia.
- How do we incorporate advocacy into our work lives? Many of us volunteer in the community with organizations that do work around gender identity and sexual orientation. This work is often not recognized as “valid” service work in academia.
- Funding of proposals by government agencies... often work around issues of sexuality is not valued or seen as important.

Action Ideas:

How do we break down the accidental silencing that occurs even in spaces such as this one where the goal is breaking down barriers?

Organizers can:

- Be Pro-active!

- Create safe spaces, specifically invite participation (event is for transgender AND cisgender women, diversity in all forms is valued), acknowledge broad participation, make sure washrooms are re-labelled gender-neutral for the event, USE THE WORDS! Don't assume it is enough to say everyone is welcome, be specific.

LGBTQ Individuals can:

- Speak our realities, be open in safe environments, USE THE WORDS!

Allies can:

- Not make assumptions. Not be a silent ally.
- Share the Risk! Come out as an ally before I have to come out.
- USE THE WORDS! Use “he or she” rather than gender-neutral language. Use “cisgender/transgender”. Ask what pronoun is preferred. These are powerful ways of telling a person that you are aware that we are not all the same, and that you support and embrace difference.

Educators can:

- Intentionally include LGBTQ subjects in curriculum (even when not obvious). Allow students the space to define the curriculum – they will often bring up social justice issues themselves. Discuss social justice issues even when they have nothing to do with the curriculum! USE THE WORDS!

Employers can:

- Adopt employment equity statements and policies that go beyond the recognized groups.
- Track metrics beyond gender, but in a safe, anonymous format.
- Stop asking about gender on forms when not necessary, and when it IS necessary, do not restrict to binary gender (male/female).

Community groups can:

- Organize educational and social events, post educational materials, and organize anti-bullying events.
- *Words are powerful. When we are members of an underrepresented and invisible minority, the words make us feel welcome and safe.*

3.4 GENDER STEREOTYPES – ESPECIALLY THOSE THAT ARE IMPLICIT IN NATURE

Highlights of Discussion:

- Girls seem to have a desire to please teachers and others in their lives more so than boys.
- Anxiety and negative attitudes surrounding math are higher in girls than boys.
- It seems that attitudes towards math/science change for girls in the grade 3-4 range.
- We need to be working with children in the elementary years.
- Power of one person to make a difference; the right/wrong teacher can make all the difference in shaping attitudes towards math/science.
- Cultural messaging is a big influence on girls' attitudes.
- We need to frame certain careers in a different light for certain audiences, especially girls. Specifically, we need to show how engineering, math, etc. are socially relevant and how they can impact people's lives in a positive manner.
- We need to be aware of our own biases.
- Language is powerful; we need to be aware of the words we write and speak.

Action Ideas:

- We should consider testing our own implicit biases so that we are aware of them.
- Work towards equity training that incorporates messages related to implicit gender biases.
- Work collaboratively with faculties of education to incorporate gender stereotypes as it relates to SETT in relevant courses.
- Present at teacher in-services on these issues so that teachers are more conscious of the role they play.

Post-It Note Comments:

- If you wish to take the implicit-bias test developed by Brian Nosek and his team at Harvard, you can do so here:
<https://implicit.harvard.edu/implicit/user/agg/blindspot/indexgc.htm>

APPENDIX ELEVEN: ATLANTIC CONNECTIONS CONFERENCE - EVALUATION SUMMARY

NOTE: 41 Evaluation Responses Were Received

Overall Conference Expectations were met or exceeded by 95% of respondents.
(Exceeded -41%; Met- 54%)

How Satisfied with Open Space format?

On a scale of 1 to 5 (Not Satisfactory to Excellent) – the average result was 4

- Approximately 30% of respondents had participated in an Open Space format previously.
- 90% felt that their questions/concerns/perspective were heard during the Open Space rounds

Student Experience? 37% of the respondents were students.

Benefits cited from attending included:

- new confidence, encouraged, empowering, more hopeful about my future
- learning from others – able to apply at my school and workplace
- could ask so many candid questions
- opportunity to network and learn from other women in SETT
- powerful role models that were relatable and hopeful

Previous CCWESTT Experience?

Only 31% of respondents had been to a CCWEST conference previously.

Interest in future Atlantic Connections Conference?

95% would be interested in attending another Atlantic Connections Conference in 2017.

- 50 % would like to see a mix of open space format and typical conference format
- 27% would like open space format
- Spring was the most frequently suggested (25%) or spring/summer (20%)

I learned...

- Women's stories and experiences - Still challenges and a long way to go for women in SETT; the breadth of the problem
- Systemic challenges facing women – not just about me; implicit biases
- We can overcome challenges. There are programs and successes we can learn from.
- Not alone – others have similar challenges across SETT e.g. work-life balance
- It is easy to overlook soft skills, such as how to effectively communicate. This conference made me aware of some of the resources available to address issues like this.
- Women's voices need to be heard – there are many effective advocates for women
- To listen to myself, be confident, speak up and self-advocate
- New ideas, skills and tips – e.g. How to write an Op Ed
- There are possibilities for real change
- New contacts and support network
- Diversity in SETT
- Importance of working together

“That many obstacles that I face are NOT of my making.”

“I am not alone”

“The importance of working together, establishing a network of women in order to empower other women in SETT field and encourage girls”

I was surprised.....

- By personal, emotional stories; level of open, constructive discussion
- Challenges and obstacles that women in SETT still face – e.g. “Academic advisors still advising women having children that academic teaching is not a good career choice”; “that there is still so much against being both a mother and a career person”; lack of women support in trades.
- Percent of women in some fields still so low; that there is still pay inequality in Canada
- Career opportunities for women in SETT – how many strong, helpful women there are in these fields.
- Trades fully incorporated – not an add on
- The great mix of women across SETT and different ages and stages made for great discussion
- Exciting new opportunities and that there are tools and resource available to overcome these challenges.
- Innovative facilitation and how well OST worked – effective in fostering discussion that was important to attendees, diversity of topics
- That it was not just more of the same discussion! That the format allowed for unusual points of view.
- Passion for change
- That many people struggle to go beyond personal experience – need to move to strategic
- By the number of initiatives currently being developed and actioned

“That I would be so open”

“As a student, I did not realize the struggle associated with being a woman in science but I believe I know how to approach these issues through meeting such influential and impressive women.”

Other comments....

- Are we ready to change from "women in the trades" to "women and trans people in the trades?"
There are people here who do not identify as women, nor as men. If it continues to be a women-focused event, could we explicitly welcome trans women?
- Loved the graphic facilitation. Also, the Op Ed workshop was a great addition
- Invite employers, industry reps, and decision makers in government.

Page intentionally left blank