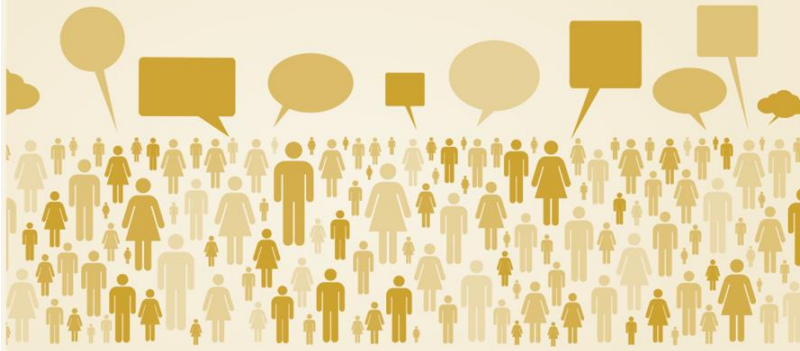


SDX: Systemic Design eXchange



Engaging
Complexity for
Systems Change

WHAT?

An Edmonton based
Community of Practice
looking to convene
individuals interested in
collectively learning
about Systemic Design
as a methodology for
addressing complex
real world issues.



W
H
Y
?

SDX2

March 18, 2016 – Action Lab – Edmonton, Alberta
#SDXCoP | #CoLabAB | #actionlabyeg



CoLab.
Complexity navigation | Collaboration | Co-design | Co-creation

About SDX

A community of practice (CoP) is a group of diverse people who come together to learn, share practices, and co-create knowledge around shared areas of interest. Informal CoPs pop up in organizations around the water cooler, but when purposefully stewarded, CoPs can become powerful, positive forces that help people navigate complex challenges together.

SDX – Systemic Design Exchange – is a collaboration between the Government of Alberta and community-based practitioners. An emerging CoP, SDX will help connect people interested in using systems thinking, design thinking, ethnography, prototyping, and social labs to tackle real-world challenges. With a bias towards learning by doing, SDX aims to be an intersection where multiple sectors can come together, learn together, and act together.

SDX co-conveners – the CoLab and the Action Lab – have committed to an initial run of four gatherings, beginning in December 2015.

“Systemic design helps groups to: visualize complexity from multiple perspectives, create shared frames of reference, surface core assumptions, and find opportunities in complexity by reframing the mess. This enables diverse groups to co-create tangible improvements to the situation. By undertaking this on the front-end of a project, systemic design generates robust options for decision makers.”

– CoLab, Systemic Design Fact Sheet, 2014



[Action Lab](#) is a social enterprise of [Skills Society](#), one of the largest disability service organizations in Edmonton, Alberta. It is designed for hosting inspiring events, group collaboration, strategy sessions, and social innovation. The Action Lab experience promotes creative problem solving, offers tools to help tap into collective wisdom, and helps people prototype solutions to challenges they are working on.

Revenue from the Action Lab supports the employment of people with disabilities, innovative social change initiatives of Skills Society, and subsidizes lab use by community groups.



[CoLab](#) is a team, a way of working, and a space. It was founded in 2014 as a cross-ministry hub for systemic design and strategic foresight within the Government of Alberta. It supports work on many of the government’s most complex strategy and policy challenges, providing a new way to have strategic conversations, include citizens in problem framing, and co-design actionable strategies. It runs internal communities of practice on systemic design and foresight, and builds capacity in these areas through training intensives and workshops.

In 2015, CoLab organized and hosted the international [Relating Systems Thinking and Design Symposium](#), bringing the event to North America for the first time.

SDX2

SDX2 participants were greeted with coffee, scones AND muffins, and a challenge: upon arrival, each person was given half a map with half a question on the back. Their task was to find the person with the other half of their map, complete the question, and have a chat. All the questions were oriented around the theme of the day: you guessed it – mapping! The networking was lively, noisy, and fun.



The official program began with welcoming remarks from Brent Wellsch, Systemic Designer with CoLab, and Ben Weinlick, Senior Manager of Research and Social Innovation with Skills Society. Ben provided an overview of what communities of practice are all about: three domains of collaboration, learning, and community. He then provided a recap of SDX1, including results of the follow-up survey. Roya Damabi, Systemic Designer with CoLab, provided a brief introduction to systemic design.

Agenda	
10:00 a.m.	Coffee & Networking
10:15 a.m.	Welcome & Recap of SDX1 What is Systemic Design? What is System Mapping?
10:35 a.m.	Challenge Map & Debrief
Noon	Post-SDX Lunch (optional)

Systemics:
Multi-scale, multi-perspective, multi-dimensional, adaptive approach to making sense of and acting to improve situations

➔

Design:
Human-centered, collaborative, visual, synthetic, and generative approach to making new-to-the-world artifacts

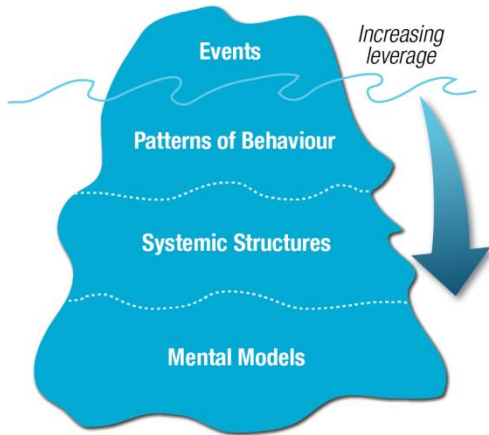
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Systemic Design:
Integrates the mindsets and toolsets of systems thinking and design thinking to make innovative systems change

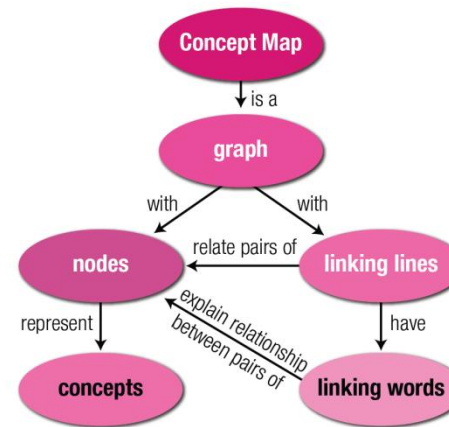
Then, Brent was back with an introduction to systems mapping. A **system** is a set of interacting or connected parts that form a whole. It is both its individual parts and the product of how those parts interact. Every system has boundaries, hierarchies, and interconnectivity that cause it to behave in a certain way.

Mapping helps people look at and understand a messy problem in context. It enables people to explore the complementary nature of different perspectives and build shared understanding. Mapping enables people to name and show relationships between the different parts of a system, communicate nesting relationships, feedback loops, and patterns of influence.

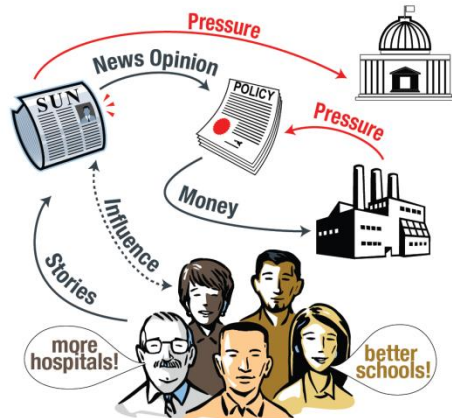




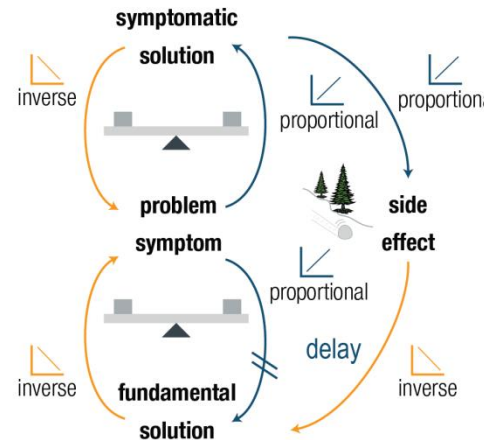
- Brainstorm events (what has happened?)
- Identify patterns (what continues to happen?)
- Recognize structures (what maintains the pattern?)
- Surface mental models (what assumptions or beliefs created the structure?)
- Where are the leverage points for change?



- Brainstorm a list of key concepts
- Put the most important concept in the middle of your map
- Add new, linked concepts
- Draw arrows and write 1-2 words describing the relationship
- Tell the story of what your map means



- Sketch the system actors and elements
- Draw and label relationships
- Show abstract ideas metaphorically
- Include yourself in the picture
- Name your rich picture
- Tell the story



- Write variables and show influences with arrows
- Label the influences as proportional or inverse
- Mark time delays with parallel lines
- Count the number of inverse relationships in each loop
- Draw either a balance (even) or snowball (odd) icon in each loop



- Blob lines represent boundaries
- Every system and subsystem has a name
- Important influences on the main system are shown outside its boundary
- Blobs within the system are subsystems, which may have subsystems
- Blobs common to both subsystems may overlap



MAPPING helps people look at and understand a messy problem in context. It enables people to explore the complementary nature of different perspectives and build shared understanding. Mapping enables people to name and show relationships between the different parts of a system, communicate nesting relationships, feedback loops, and patterns of influence. Here are five types of maps you can try.

For more information on mapping, visit colab.alberta.ca.

Challenge Mapping

SDX2 participants split into three groups facilitated by Ben, Brent, and Roya. Each group had to create a map in answer to the following question:

What are the most important challenges facing Edmonton and Alberta today?

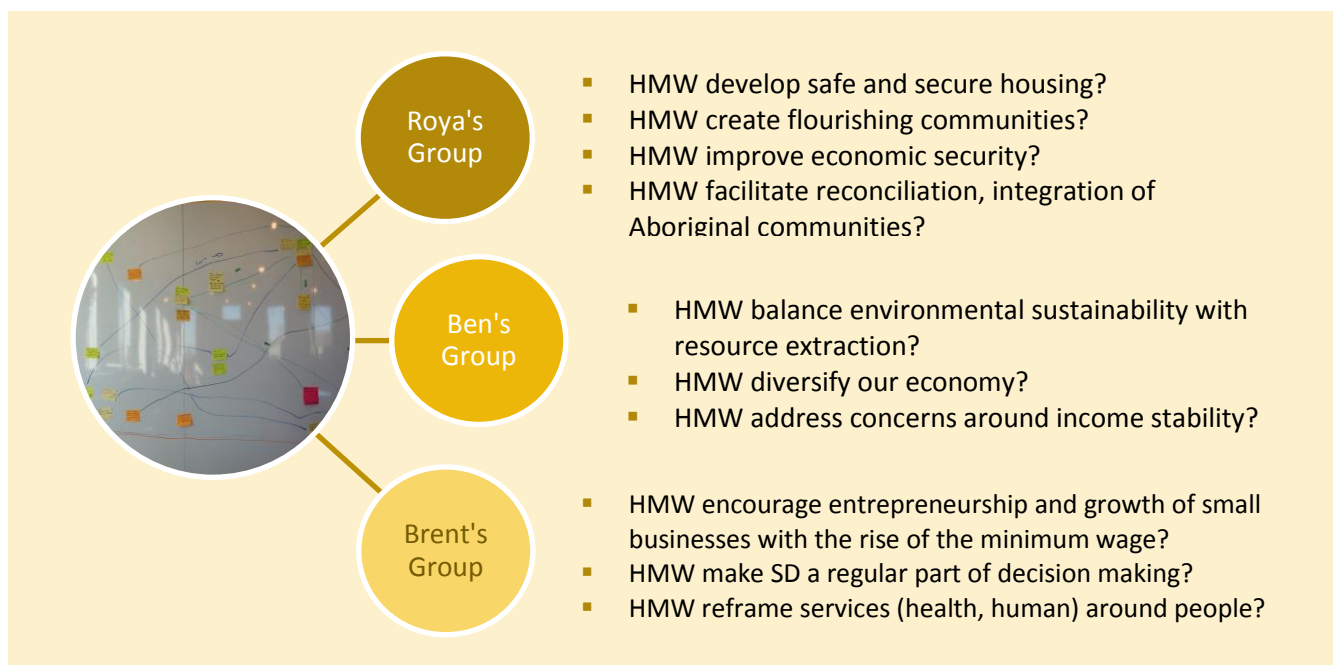
Each group began with individual brainstorming for five minutes, writing their ideas on sticky notes. Participants were asked to write one idea per sticky note in the form of a 'How Might We...' (HMW) question.

Designers use HMW questions to encourage innovation: HMW questions encourage people to think about what is possible. When combined with brainstorming, where people are asked to reserve judgment and focus on quantity over quality, HMW questions can help people generate lots of ideas in a relatively short period of time, resulting in many ways to approach a problem. You can read more about HMW questions [here](#) and [here](#).

Participants then put their ideas on the board and, working with the facilitator, grouped the ideas into themes or clusters. Using dotmocracy, each group then chose their top ten questions based on what they felt were most important, what questions would be suitable to tackle using systemic design, and what they felt they would like to work on through SDX.

Once a group had its top ten, they then plotted these questions on a scale from local (#iheartweg) to provincial to get a sense of the different scales – of both the challenge and the question itself.

Each group then chose its top three (or four, if they decided to break the rules, ahemRoyasgroup) to put forward into the combined map. Below are the questions each group put forward for the combined map.



Once each group completed their small-group task, the exercise transitioned to the creation of a single SDX challenge map. The objective of this step in the process was two-fold: first, to create a single artifact that demonstrates the most important challenges from the group overall and, second, as a learning objective to experiment with the nuances of converging diverse ideas and opinions into a single overall structure.

Each group was invited to the front of the room to present their top 3 challenges and place them on a new challenge map canvas. The canvas featured two axes: the vertical axis requiring participants to plot on a range from local to provincial, and the horizontal axis from narrow to broad (see page seven for the full map).

Once complete, groups were invited to plot additional issues that they felt were necessary for contextualizing the overall map. They were then asked to draw arrows indicating relationships between issues to show how issues relate to one another.

This exercise surfaced a few initial insights:

1. **Themes:** The overall challenge map is populated by six general themes (complex problem-solving; culture and community; economy; energy and environment; reconciliation/indigenous; and social).
2. **Diverse Scope:** The challenges vary greatly from local/narrow challenges to broad/provincial challenges. This gives a rich tapestry of potential areas for further examination.
3. **Multitude of Connections:** The group was able to make many connections, articulating relationships between issues. This occurred so much so that one participant shared that “it is all connected.” Further analysis is necessary to unpack the nature of these connections to understand where true leverage points for change exist.



Reflection on Exercise

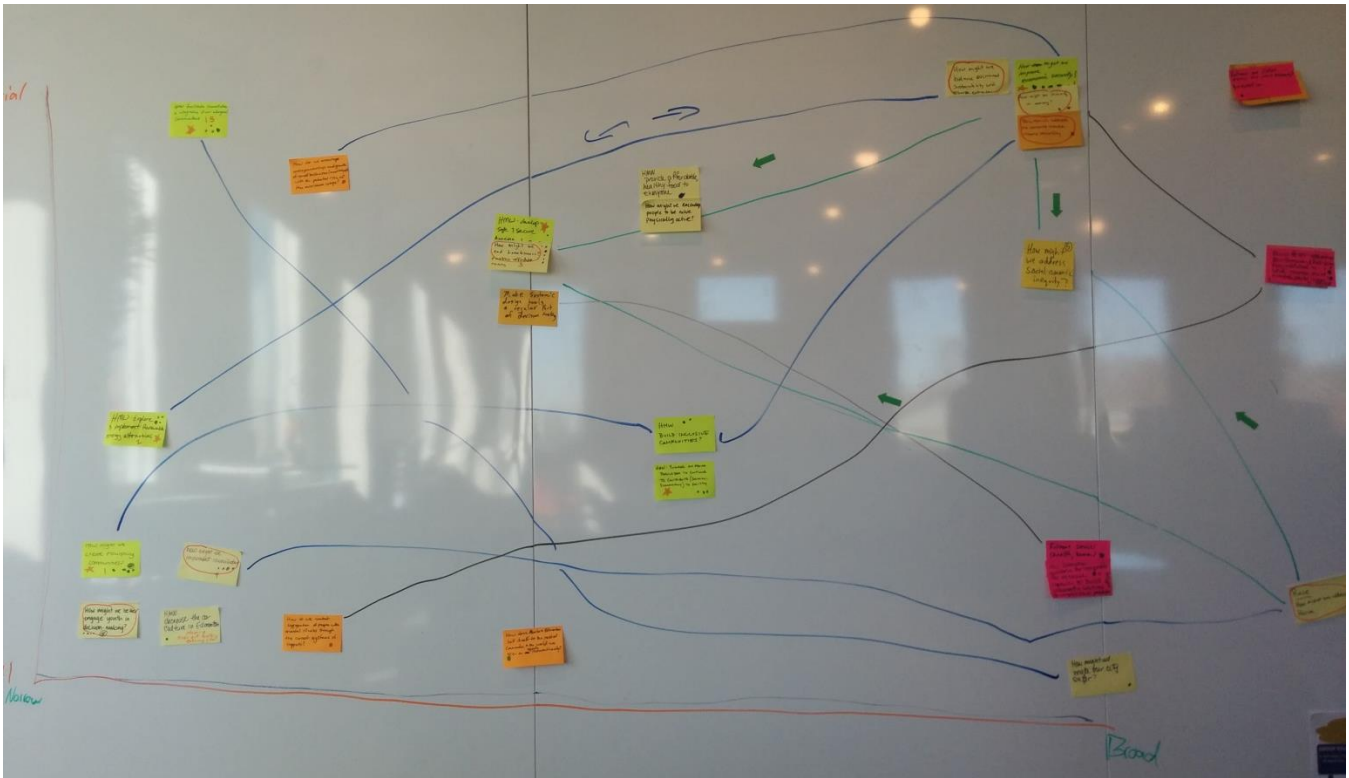
The challenge map exercise provided participants with an opportunity to engage in a process that articulates challenges that future SDX sessions may focus on, while also practically learning about mapping practices from a systemic perspective. The exercise created a living map that SDX may iterate in future sessions.

A key take-away for the facilitation team was the procedural challenge of moving a group from a creative divergent process (small group work) to a plenary convergent end (large challenge map creation). Part of the objective in systems mapping is to build shared understanding of the system. Participants need appropriate time to share their perspectives, reflect on others' and their own ideas, and appreciate diverse opinions in the room. While SDX' two-hour time frame makes an ideal balance between divergence and convergence challenging, as a place for learning and practice the activity was beneficial.

Questions Raised

Participants raised the following questions related to the challenge map and how SDX might proceed:

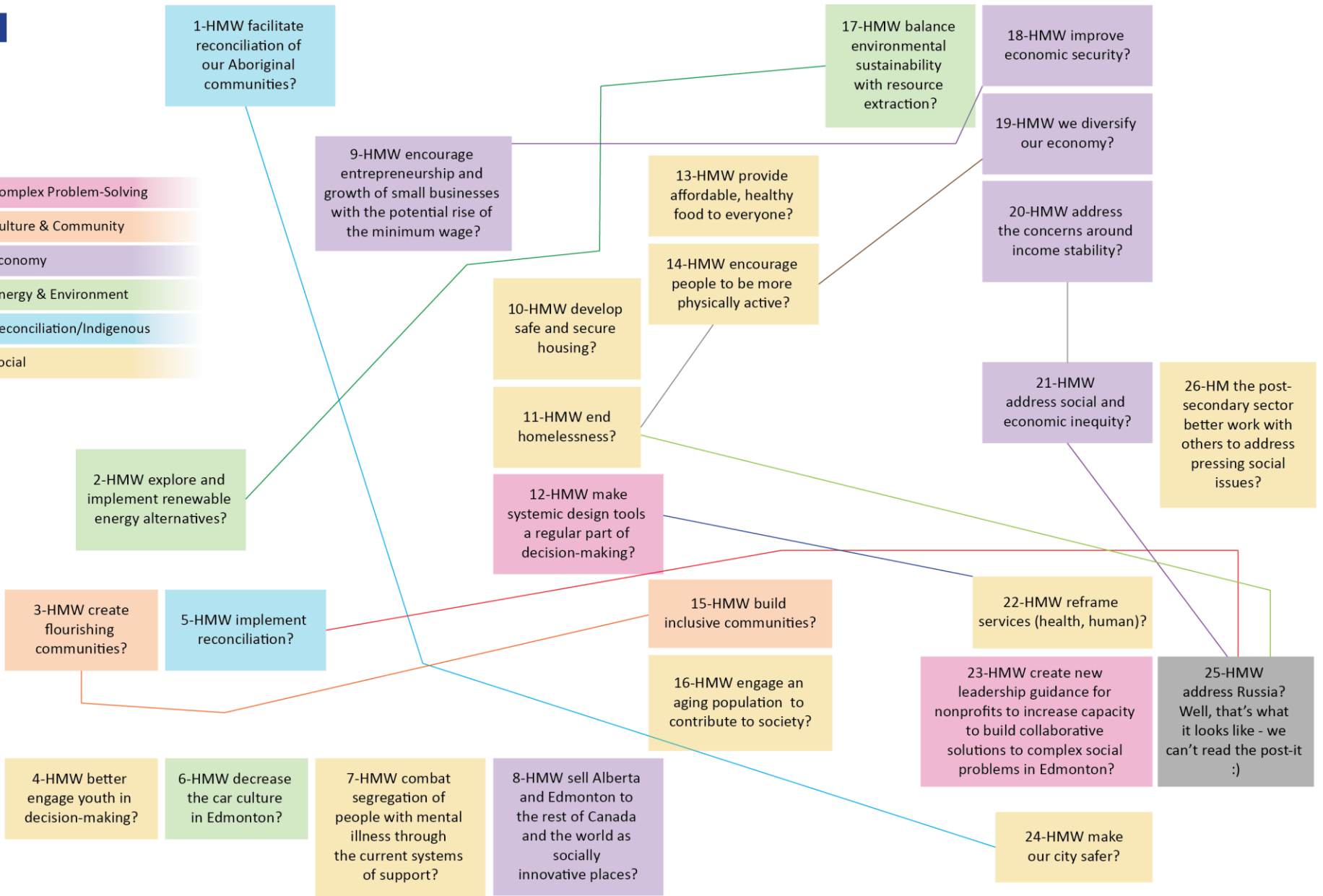
- Who has money and political support to work on any of these questions?
- What can we actually do?
- Who is already working on these questions?
- Who are the champions?
- Who is doing interesting work in these areas? (Maybe ABSI Connect knows?!)



SDX2 Challenge Map



- Complex Problem-Solving
- Culture & Community
- Economy
- Energy & Environment
- Reconciliation/Indigenous
- Social



Moving Forward with SDX – A Message from your Conveners

SDX1 intended to provide participants with an opportunity to network, as well as become familiar with the concept of SDX. SDX2 sought to build on this experience by again offering ample networking time, while also allowing the community to surface challenges that SDX could further explore at a later date.

The planning team intends to reflect on the experience from SDX2 and analyze survey results to best plan how to steward SDX forward in future sessions. In particular, to design sessions that better suit the following themes raised by participants (see survey results in Appendix B for more information):



- How to create a welcoming space for newbies that maintains momentum and learning for “oldies” 😊
- How to enable participants to use the brainpower and creativity of SDX to support their current challenges and problems – and to exploit new opportunities
- How to address the desire to work on real world challenges with desire for learning, practice, and the real-world constraints (time, resources, etc.) of our community of practice

We are extremely excited and impressed by the interest we have received to date and look forward to continually building this community with you. Please look forward to another event in late May/early June 2016!

Remember!

The Relating Systems Thinking and Design Symposium will take place at the Ontario College of Art and Design in Toronto from October 13-15, 2016. Organizers are accepting proposals now for presentations and papers.

<http://systemic-design.net/>

**Appendix A:
Small Group Brainstorming – List of HMW Questions**

SMALL GROUP BRAINSTORMING: QUESTIONS	
Theme	How might we...
Beautification	Make Edmonton beautiful?
Citizen Engagement	Better listen to citizens?
Community Spirit	Create flourishing communities?
	Build community spirit?
	Address atrophying mature neighborhoods?
Creatives	Create safe/inclusive spaces for the arts?
	Inspire creatives to stay in Edmonton?
	Infuse more of the arts into community?
	Create networks for creatives to collaborate?
	Create some cool festivals for the winter months?
Economic Diversification	Come out of this economic downturn stronger and better?
	Improve economic security?
	Continue to grow in a struggling economy?
	Smooth the shocks of a shifting economy?
	Create jobs?
	Introduce incentives to diversify our economic base?
	Encourage entrepreneurship and growth of small businesses with the potential rise of the minimum wage?
	Support diversification of Alberta's economy? / Diversify our economy?
Address growing economic segregation in the city?	
Energy Futures	Create access to sustainable energy sources?
	Transition to renewable energy?
	Explore and implement renewable energy alternatives?
	Chart a compelling path to energy diversification?
	Craft a heroic narrative for Alberta and a positive climate future?
	Balance environmental sustainability with resource extraction?
	Find an economic balance between oil production and new/existing alternatives?
Orders of Government	Address long-term stable civic funding systems (beyond property taxes)?
	Reframe the national unity debate away from equalization payments?
Health	Engage more stakeholders to solve community health problems?
	Improve wellbeing?
	Raise awareness around mental health?
Housing & Homelessness	End homelessness and address affordable housing?
Identity	Develop Edmonton's identity – provincially, nationally, globally?
	Help Alberta and Edmonton sell itself to the rest of Canada and the world as socially innovative places?

Inclusion	Build inclusive communities?
	Integrate newcomers into our economy and polity quickly?
	Create inclusion as a provincial mantra?
	Engage an aging population to continue to contribute (socially, economically) to society?
	Combat segregation of people with mental illness through the current system of supports?
	Deal with an influx of people in Edmonton with the dropping price of the oil barrel?
Income Security	Address concerns around income stability?
Leadership	Encourage local and communal leadership to voice their concerns and presence to provincial and federal leaders?
	Change the collective leadership model to increase the civil sector's capacity for impact?
	New leadership guidance for non-profits to increase capacity to build collaborative solutions to complex social problems?
Post-secondary	HM the post-secondary sector better work with others to address pressing social issues?
Reconciliation	HMW implement reconciliation?
	Facilitation reconciliation and integration of our Aboriginal communities?
Rural/Urban	Support rural communities in a trend towards urbanization?
Social Services	Pay for expensive social programs and have lower taxes?
	Reframe services (health, human) around people?
Systemic Design	Demonstrate the possibility of design for public innovation in times of need?
	Make systemic design tools a regular part of decision-making?
Transportation	Create better transportation infrastructure to help everyone move more freely?
	Address key transport issues (walk/bike/drive/public transport)?
	Make Edmonton pedestrian friendly?

Appendix B: SDX2 Participant Survey Results

From the survey responses, it was clear that all respondents gained new **insight** from attending SDX2. This insight, however, was not always related to systemic design. Some respondents spoke of insights gained from meeting new people and learning from seeing others facilitate a process.

Related to the **challenge mapping activity**, **two groups** seemed to emerge from the survey responses: one group that was perhaps less familiar with systemic design and another group that was more familiar with systemic design tools and had facilitated these types of methods before. The newer to SD group was more likely to speak about the learning they gained from the challenge mapping exercise and their enthusiasm to try similar methods in their home organizations. The more experienced practitioners found the mapping activity lacked some grounding and that it was challenging to maintain momentum and input when it came to making the combined map in one large group. Generally, respondents found the mapping activity a neat learning experience and method, but they were not sure how SDX could practically use the map moving forward to act on the questions they generated.

From respondents' comments, two **tensions** were evident – tensions that the conveners have been working through in SDX' design. First, the desire to create a space that is useful for both newbies and more experienced practitioners. Second, whether to focus on learning and practicing or to use SDX to tackle a real-world challenge.

Survey respondents continue to feel that SDX's **greatest value** is in the way it brings people interested in this type of work together, enables people to make new connections, and supports people to learn and learn-by-doing together.

Most people found the **balance** of networking, theory, and practice appropriate...but a little bit more networking time wouldn't hurt!

"We need a good balance each time of welcoming newbies and supporting the people that are deeply embedded in systemic design work. Need to design a way to scaffold newbies up quickly to understand what SDX is, why, what to expect, etc."

- SDX2 Participant

Some **specific suggestions** survey respondents raised include:

- Post-mortems on projects to learn from others about what worked, what didn't, and why – let's learn from our failures, faster
- Opportunities to hear other SDX members speak and present, to learn from each other
- Give participants an optional homework assignment of something related to each SDX that they could try in their home organizations between SDX sessions
- Find a way to more easily on-board newbies and new members
- Address the learning vs. "let's do something in the real world!" orientation question

"I'm cautious about the notion that SDX should take on bigger projects and create working groups tackling real challenges. Maybe SDX spin off groups create proposals and try to get outside funding for systemic design challenges? If SDX starts on a path to get participants working on specific projects off the side of their desks it will be difficult to sustain the momentum and participants will blame SDX and systemic design methods as the reason a project didn't work. Which would be a shame."

- SDX2 Participant

What topics would you like to explore at future SDX sessions?					
Bridging the Gap	Creating a Platform	Learning	Ideating	Particular Topics	Tackling Specific Issues
Policy & Delivery	Bring in outside speakers (Roger Martin, Tim Brown, Yves Behar)	Skills & craft of social innovation	Dragon's Den Format	SD as a Tool for Organizational Development	Apply models to real-life scenarios
Systemic Design & Service Design	Develop a space to publish ideas, insights, articles	How is social innovation shifting policy development?	Charrettes	Organizational learning	Have participants bring their projects to the group
Designing for 'Extreme Users'	Communicate the value of SD and Systems Thinking	When to use which tools	Prototyping	Change management, transformation	Explore sticky social issues
		Big picture thinking		Relation between SD and citizen deliberation, engagement	
		How to work better together		SD and community organizing, networks	
		How to understand and map systems		Storytelling	
		How to communicate the value of SD and Systems Thinking		Monitoring & Evaluation for SD	
		How to evaluate social impact			

Multiple Choice/Scale Answer Questions

I work for:

9 out of 9 people answered this question



What is your experience with the internal Systemic Design Community of Practice run by the CoLab?

9 out of 9 people answered this question



I gained new insight(s) about systemic design at SDX.

9 out of 9 people answered this question



I made new connection(s) at SDX that could benefit my work.

9 out of 9 people answered this question



Theory:

9 out of 9 people answered this question



Practice:

9 out of 9 people answered this question



Networking:

9 out of 9 people answered this question



Listening:

9 out of 9 people answered this question



Doing:

9 out of 9 people answered this question



I had fun at SDX.

9 out of 9 people answered this question

