

# 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.



# WHY?

# SDX1

December 18, 2015 – Action Lab – Edmonton, Alberta  
#SDXCoP | #CoLabAB | #actionlabyeg



## 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.

# SDX1

With coffee on tap and cookies in hand, the morning began with welcoming remarks from Brent Wellsch, Systemic Designer with the CoLab, and Ben Weinlick, Senior Manager of Research and Social Innovation with the Skills Society. Using [Visual Explorer](#), there was a networking icebreaker where participants were asked to choose an image card that speaks to how they tackle complex challenges. Everyone then plotted their card on a spectrum from ideas to action, with a post-it note explaining why they chose that card. As shown in the photo below, there was representation across the spectrum.



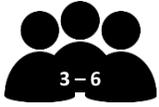
Agenda	
9:00 a.m.	Welcome & What is SDX?
9:15 a.m.	Networking Icebreaker: Visual Explorer
9:30 a.m.	Introduction to Systemic Design
9:45 a.m.	Activity Stations & Debrief
10:45 a.m.	Plenary: Potentials for SDX
11:00 a.m.	Close

Brent and Ben then each provided a very brief overview of systems thinking and design thinking respectively, and how they come together in systemic design. Then, it was time to get the activities going. Eight activity stations were set up around the Action Lab, each providing participants an opportunity to try out a different systemic design method. Participants self-selected which station to attend. The first prototype of the CoLab’s Systemic Design Field Guide was used both as a way to provide participants with an issue to explore at their stations and as a way for CoLab to receive end-user feedback on its prototype. All stations, with the exception of ‘Hat Trick’, used the Field Guide in this way. Groups debriefed internally, reflecting on ‘Ah-ha’, ‘What the’, and ‘What if’ categories. Everyone came together in plenary to share a few key insights from each group.



A plenary discussion of next steps and potentials for SDX took place to close the workshop.





## Station #1: Card Sort

### What is it?

Card Sort is a tool to explore how participants categorize items and relate concepts. Card sorting can reveal important information about user preferences, biases, etc. It provides facilitators with a participatory tool to generate useful information about how people perceive something.

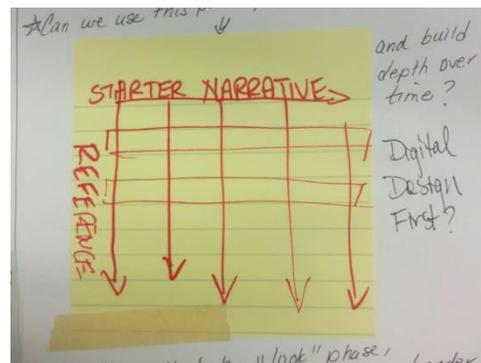
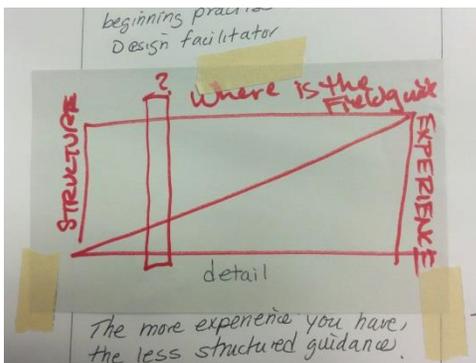
### When to use it?

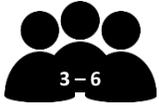
FRAME: Card Sorting gives participants an opportunity to categorize ideas, revealing preferences about how elements inter-relate. It supports issue re-framing and helps build shared understanding.



Participants were asked to organize the pages of the first prototype of the CoLab Systemic Design Field Guide. Each card represented a page of the Field Guide.

Card Sort		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>Group quietly semi-organized and then talked content. Helped us to move forward.</li> <li>Guide is obviously linear with a beginning and end. The 'middle' is where questions arose re: intent. E.g., reference vs. learning, or a guide to running a workshop?</li> <li>Bunny – tone – comfort</li> <li>The method section grounds the theory: need to show more methods to ground theory</li> </ul>	<ul style="list-style-type: none"> <li>Bunnies? Controversy re: illustration. Is it whimsical? Metaphor? Selling feature? Not serious?</li> <li>What is the utility of this resource? Disconnect between beginning to practice to 'expert' design facilitator. The more experience you have, the less structured guidance.</li> <li>So much work for hexagons! Make printing simple.</li> <li>Who is the audience?</li> </ul>	<ul style="list-style-type: none"> <li>Use this prototype as a starter and build depth over time?</li> <li>Design a digital version first?</li> <li>Organize methods by 'look' phase, 'frame' phase – will facilitator/reader know when to use which method?</li> <li>Include an overview of how to organize a design process, with a sample workshop planner?</li> </ul>





## Station #2: Why Bunnies?

### What is it?

'Keep Asking Why', also known as the 'Ladder of Inference' or 'Process of Abstraction', helps us understand the thinking steps behind things we often make assumptions about. It helps people get back to facts, and to get at underlying, or root, issues.

### When to use it?

LOOK: this method enables you to construct a dialog that interrogates the logic of a position, allowing you to deconstruct group perceptions and surface underlying assumptions and issues. It is a flexible tool that can be used with a number of different audiences and group sizes.



Participants were asked to look at the CoLab Field Guide and delve into the use of the bunnies, with the question, 'why bunnies?' as the first rung on the ladder of inference.

### Group Summary

#### ➤ Why Bunnies?

- Bunnies move quickly, representing the slipperiness of problems.
- They multiply quickly, representing the types of issues systemic design helps to address (bunnies making more bunnies = complexity!).
- Bunnies also adapt with the seasons, changing colour – just as we need to adapt on the fly and be open as we move through our challenges.
- Bunnies are agile, like we must be – they hop from place to place. They have a variety of contrasting movements, from gentle hopping to a fast running streak.
- The bunny helps symbolize the non-threatening environment facilitation aims to create – everyone loves bunnies!
- The saying 'following the white rabbit' – looking into unexpected places.
- Bunnies symbolize renewal, hope, and optimism.
- It is easier to relate to an organism than a map.

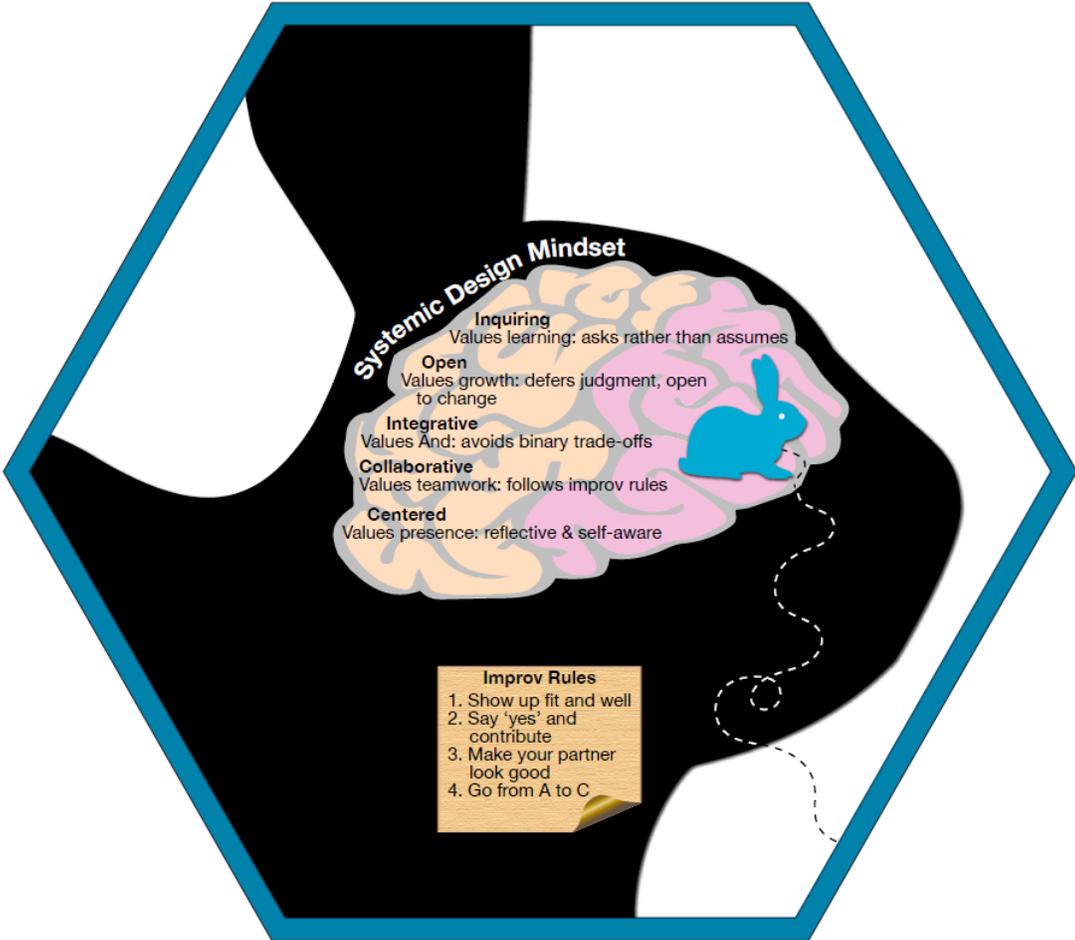
#### ➤ Why do bunnies help us dig into complexity?

- A mess of bunnies is difficult to deal with, but one can zoom in to individual level. Staying in the divergent phase helps keep an open frame of mind.

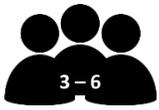
#### ➤ Why is it important to have a non-threatening environment?

- People are more willing to share and be creative if they feel safe and comfortable.
- There is no apparent link between bunnies and complexity – this helps us to remove our biases.

Why Bunnies?		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>A seemingly simple question can lead to big, rich ideas</li> <li>Bunnies work well – great symbol</li> <li>Endless possibilities</li> <li>The power of a visual metaphor to hold ideas</li> <li>Drawn to the bunny</li> </ul>	<ul style="list-style-type: none"> <li>When to stop?</li> <li>Where's the tipping point?</li> <li>When is the metaphor being pushed too far?</li> </ul>	<ul style="list-style-type: none"> <li>Could this have worked as effectively using a different animal?</li> <li>We wouldn't have kept asking why? Would we have tried to solve a problem?</li> <li>The rabbit wasn't there?</li> </ul>



Sample page: Systemic Design Field Guide Prototype



### Station #3: Cover Me

#### What is it?

A prototype is a fast and cheap experiment generates new learnings for the team. Participatory prototyping enables you to make your ideas tangible. This gets people beyond talking towards creating and doing. It allows you to put your ideas in front of users early and often, gaining rapid feedback and iteration to improve your innovation.

#### When to use it?

GENERATE: Participatory prototyping gets participants into the generative phase. Use it when you have a new idea or critical uncertainty you want to test in a tangible way.

Participants used rapid prototyping to create a cover for the Systemic Design Field Guide. Photos of the two covers they created are pictured below.

#### Group Summary



Cover Me		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>Similar ideas</li> <li>We don't always have a good sense of what is going on</li> <li>Emotional experience</li> <li>You can tackle it with a number of different solutions</li> <li>You won't know until you try</li> <li>Even in a tiny space, ideation can be generative</li> </ul>	<ul style="list-style-type: none"> <li>How might I put it all into one cover sheet?</li> <li>Disturbed by the simplicity of the field guide</li> <li>Where's the glue?!</li> </ul>	<ul style="list-style-type: none"> <li>Wouldn't it be neat to design cover sheets for frameworks and strategies this way</li> <li>We had a more serious version</li> <li>We had a series of facilitation inventories in a coiled binder – could be used for daily devotionals, facilitation emergencies</li> </ul>





## Station #4: Picture This

### What is it?

A rich picture is a drawing of what a system looks like. Groups use visual thinking to show actors, elements, and relationships. Because the approach is unstructured, almost anything goes. Participants visualize multiple perspectives and include intangibles, like emotion and culture.

### When to use it?

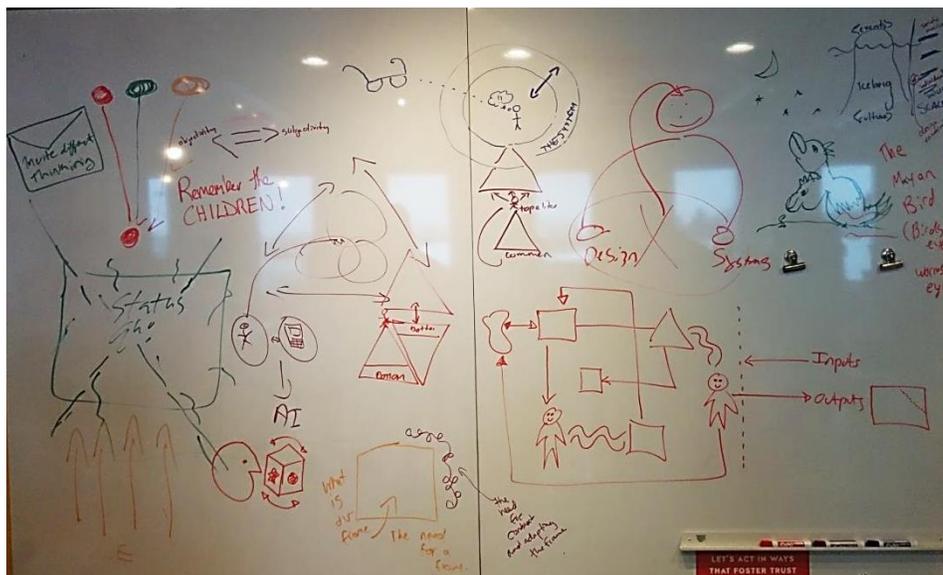
FRAME: Rich pictures are useful at the start of framing when there is no map of the system. They can be used to map the current, legacy, and desired systems. Rich pictures convey messiness, complexity, and interdependency, rather than imposing artificial order.



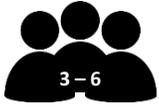
Participants were asked to create a rich picture to represent their understanding of the Field Guide.

### Group Summary

Picture This		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>Drawing brings people together</li> <li>Helps model the thinking</li> <li>Makes it about the idea, not lost in translation</li> <li>Metaphors help</li> <li>The first mark sparks!</li> <li>Snowball process</li> </ul>	<ul style="list-style-type: none"> <li>Better definition of the space you're drawing in</li> <li>Were we facilitated based on our thinking or a process?</li> <li>How do we connect the drawing to the problem?</li> </ul>	<ul style="list-style-type: none"> <li>I don't have a whiteboard?</li> <li>I could draw better?</li> <li>We connected this to the first activity?</li> </ul>



The group's rich picture representing the Systemic Design Field Guide.



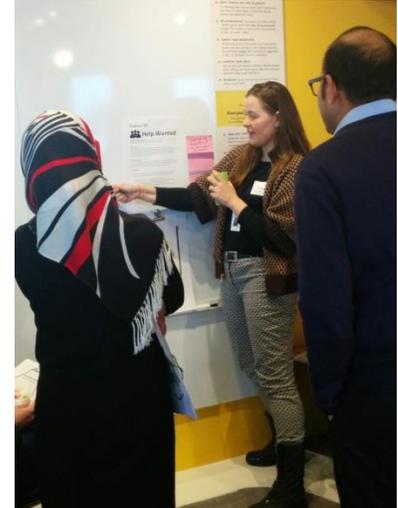
## Station #5: Help Wanted

### What is it?

A point-of-view (POV) is a reframing of a design challenge into an actionable problem statement to launch generative ideation. A POV Want Ad can be a good way to express distilled findings in an intriguing format. It tends to accentuate a specific user, and her important traits.

### When to use it?

FRAME: The POV Want Ad enables participants to explore the different ways people see and understand a problem to show the complementary nature of different perspectives and build shared understanding.



Based on the discussion in the Systemic Design Field Guide, participants were asked to create two want ads: one for a traditional facilitator and one for a systemic design facilitator.

### Group Summary

#### Traditional Facilitation:

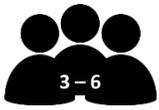
- Identified outcomes/known problem
- Convergence focus
- Depth of experience
- Follows plan
- Linear and process-centric
- Control: facilitator-driven
- Gravitate to simplicity
- Objective facilitator
- Unbiased\*
- Steward of process\*

#### Systemic Design Facilitation:

- Exploratory: we don't know the problem
- Divergence focus
- Breadth of experience
- Emergent, stay in the 'why'
- Non-linear, person-centred
- Participant-driven
- Embrace the mess
- Facilitator as participant
- Unbiased\* - talk about biases, assumptions
- Co-create solutions

Participants also discussed how systemic design tends to have a greater diversity of participants in the room and makes greater use of visual and tactile methods. The group discussed how this enables systemic design to generate more useful questions and potential levers to work on a challenge.

Help Wanted		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>▪ Can a person grow into a non-traditional systems facilitator?</li> <li>▪ Practice can help transitions toward emergence, staying in the 'why'</li> <li>▪ Must haves to begin? Emergence and optimizing?</li> <li>▪ Exposure helps</li> <li>▪ There can be freedom in a framework – flexibility is important</li> </ul>	<ul style="list-style-type: none"> <li>▪ How do you sell systemic design, build logic?</li> <li>▪ Frame of reference shift...do you have to have a frame?</li> </ul>	<ul style="list-style-type: none"> <li>▪ There was well documented evidence that problem-solving using systemic thinking and systemic design led to success?</li> </ul>



## Station #6: Hat Trick

### What is it?

Pioneered by Edward de Bono, Six Thinking Hats is a facilitative technique that allows individuals to “step-outside” of themselves and engage in the thinking of a particular issue through a different mind-frame. It allows facilitators to avoid or overcome group-think during a systemic design workshop. Participants used the Action Lab’s remixed version of this exercise.



### When to use it?

FRAME/GENERATE: Six Thinking Hats can be used during framing as a way to tease out legacy or current ways of thinking. It may also be used to draw out user perspectives about the plausibility or feasibility of a prototype.

Using the six hats, participants were asked to discuss the following and brainstorm ideas:

- It is perceived by some within the Government of Alberta as a risk for the CoLab to interact and engage with external folks – like the Action Lab and SDX participants. How might the CoLab demonstrate the value of engaging externally to internal, Government of Alberta audiences? How might the SDX support this effort?

### Group Summary

Hat Trick		
A-Ha’s	What the’s	What if...
<ul style="list-style-type: none"> <li>Inside government there are lots of reasons not to do this</li> <li>Expansion of conversation: shouldn’t be all about government issues</li> <li>There is power in these practices</li> </ul>	<ul style="list-style-type: none"> <li>What’s holding people back from collaborations? Fear?</li> <li>How is systemic design similar to/different from other flavours of collaboration and dialogue practice in the GoA?</li> <li>How to test assumptions?</li> </ul>	<ul style="list-style-type: none"> <li>We spent more time on this?</li> <li>We created a space that people could actually say that they are thinking?</li> <li>We linked to contemplative dialogue?</li> </ul>

The specific ideas the group brainstormed under each hat are outlined on the following page.

“Systemic design thinking opens new ways of understanding the complex issues that Governments often deal with. Given that the interdependence of various social, economic, technological and other domains/ systems is increasing, the importance of a systems approach in understanding the interactions and their implications is huge.”  
 – SDX Participant, on the question of what is the value of SDX?



### Assumption Hat

WHAT ARE ALL THE ASSUMPTIONS AROUND THE ISSUE?

- Information will leak too soon
- Collaboration complicates
- We can deal with complexity in-house



### Emotional Hat

WHAT ARE THE GUT REACTIONS AND FEELINGS AROUND THE ISSUE?

- Fear
- What are you hiding?
- Government is unappreciated
- Frustrated: approval processes are complicated
- Overloaded



### Past Experience Hat

WHAT HAS BEEN DONE IN THE PAST? (SUCCESSFUL OR NOT)

- The squeaky wheel gets the oil
- Anchor what is relevant to people
- Prize government-built policy with people outside government
- Get stakeholder buy-in for future policies/discussions
- A plethora of strategic plans and policies, but few showing actual, plentiful fruit



### Creative Hat

WHAT ARE OUT OF THE BOX WAYS TO APPROACH THE ISSUE?

- There are collaborative policies!
- Find and leverage collaborative leaders - see if they can express the value
- Explain 'why' a lot - help people see the value through workshops and presentations
- Be clear about who will be in each room and why
- Focus on an issue low on the political radar and show how systemic design can act as a jumping off point for replication in the future and bigger issues
- Understand the problem in multiple ways
- Work together on a complex problem outside government
- Change management: support people in government to understand 'why systemic design'



### Caution Hat

WHAT DO WE NEED TO WATCH OUT FOR AND BE CAREFUL OF?

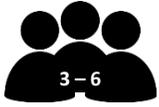
- Sort out the purpose first: what's the value?
- Don't just create more process
- Need genuine interactions, not just a check box
- Has to be action coming out of any collaboration
- Avoid personal agendas - return to agreed-upon core purpose
- Accountability check
- Diluting policy competence



### Fact Hat

WHAT ARE THE FACTS AROUND THE ISSUE?

- Community also struggles with complexity
- Distrust of government
- There is not always 'more'...there are difficult decisions to be made
- When you collaborate with process people, many want to stop your thinking
- Science vs. public opinion
- There IS expertise for practical experience out there
- There are political bottlenecks on the forms of collaboration used by government
- There is more pressure to show value from your activities during difficult financial times
- Government always has to deal with allocation of scarce public resources



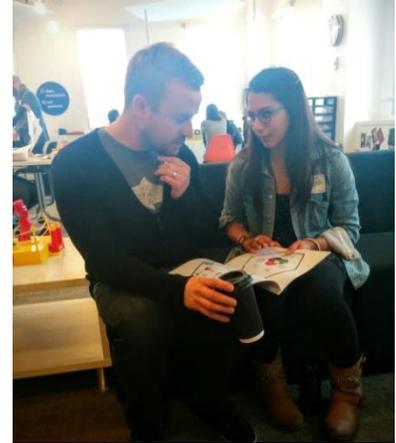
## Station #7: Ass-u-me

### What is it?

Challenging assumptions means questioning the everyday things you take for granted. Assume a beginner's mindset so you can approach a design challenge with fresh eyes.

### When to use it?

FRAME: Surfacing and challenging assumptions at the beginning of a systemic design process can help teams recognize their biases before they go down a path they may not realize they are on.



Participants were asked to go through the Systemic Design Field Guide and surface all the assumptions that its design team made, their potential implications, and ideas to help the design team to address their assumptions in their next iteration.

### Group Summary

#### Assumptions around purpose, metaphor, context:

- Why a bunny?
- Cultural assumption?
- Academic in nature – emergence, integrative (Frances Westley)
- Flow – long document, lost where I was
- What is it used for? Reading, teaching, running workshops, introduction to design
- Is it just one document?
- Why is it called a field guide? May be an oversimplification – hard to get on the ground for a difficult room.
- How would I facilitate people?
- Is it the right format? What about digital...don't want something you just put in a drawer. Can it stand out? People want 'cool stuff'.
- Multiple methods? Formats?
- I can't print in colour – I can only use black and white! (\$)
- Is the tool appropriate for all office cultures? [Does it have to be? How much of this is about CoLab?]
- Is the tool appropriate for all contexts? Some areas have very limited time and space.
- Is it theory or practice?
- Not just the tool, but also how to use the tool.

Ass-u-me		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>▪ Good start to supporting social innovation</li> <li>▪ It is long!</li> <li>▪ Flow and organization of the Table of Contents...expand this</li> </ul>	<ul style="list-style-type: none"> <li>▪ How do I shift/use these tools in a culture that does not support social innovation?</li> </ul>	<ul style="list-style-type: none"> <li>▪ There was more focus on the practical tools and when to use this?</li> <li>▪ We could disrupt the current culture?</li> <li>▪ There was more focus on the CRAFT of using/thinking/ideating around social innovation?</li> <li>▪ Facilitation/rules of engagement are a starting point...with examples (time, page 33)</li> <li>▪ A play tool...LEGO!</li> </ul>



## Station #8: Persona

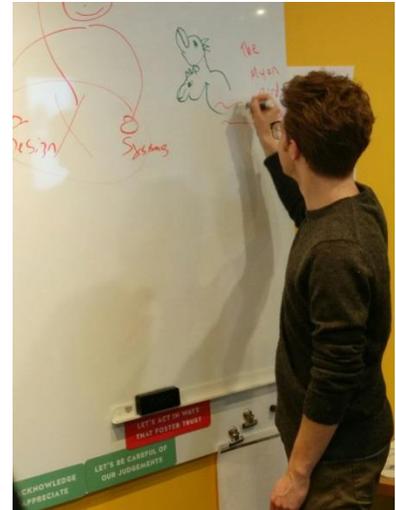
### What is it?

Empathy maps provide a way to visualize a perspective in order to better empathize with those who hold it by – in their words – capturing what they think and feel, say and do, hear and see, as well as their hopes and fears.

### When to use it?

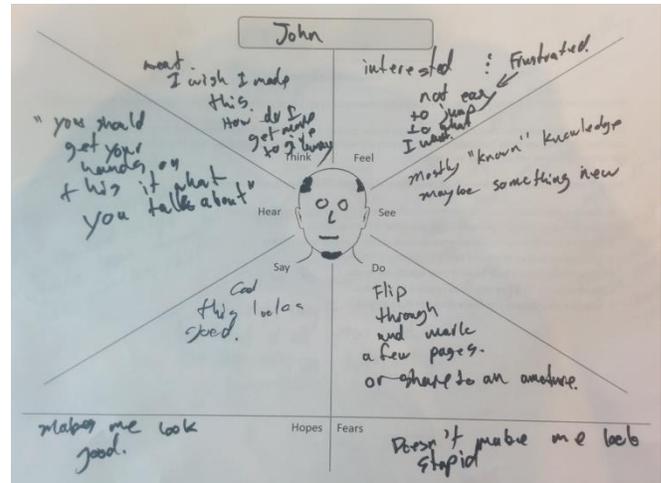
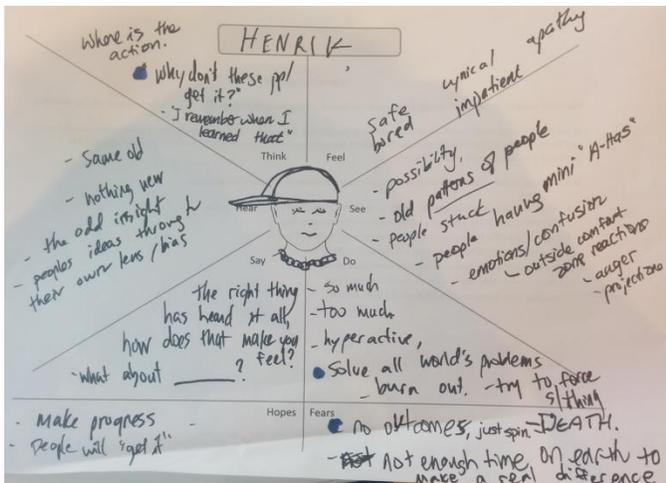
LOOK: the empathy map helps teams in the ‘look’ phase to understand other perspectives. It works best after performing ethnographic research or interviewing for empathy as a way to visually represent interview results.

Participants were asked to consider the potential audiences for the Systemic Design Field Guide, create personas for those audiences, and complete an empathy map for each one.



### Group Summary

Persona		
A-Ha's	What the's	What if...
<ul style="list-style-type: none"> <li>'We' are cynical, but vulnerable</li> <li>There are no experts</li> <li>'Intermediate' learners are more open-minded</li> <li>'Experts' are trying to be king of the jungle – lose the essence of the practice</li> </ul>	<ul style="list-style-type: none"> <li>Competition</li> <li>Frustration</li> <li>Do experts need to be old white men?</li> <li>Is there a way to design that would work for all?</li> </ul>	<ul style="list-style-type: none"> <li>It's win-win? For consultants?</li> <li>More than one king in the jungle?</li> <li>What if you redefine 'expert'?</li> </ul>



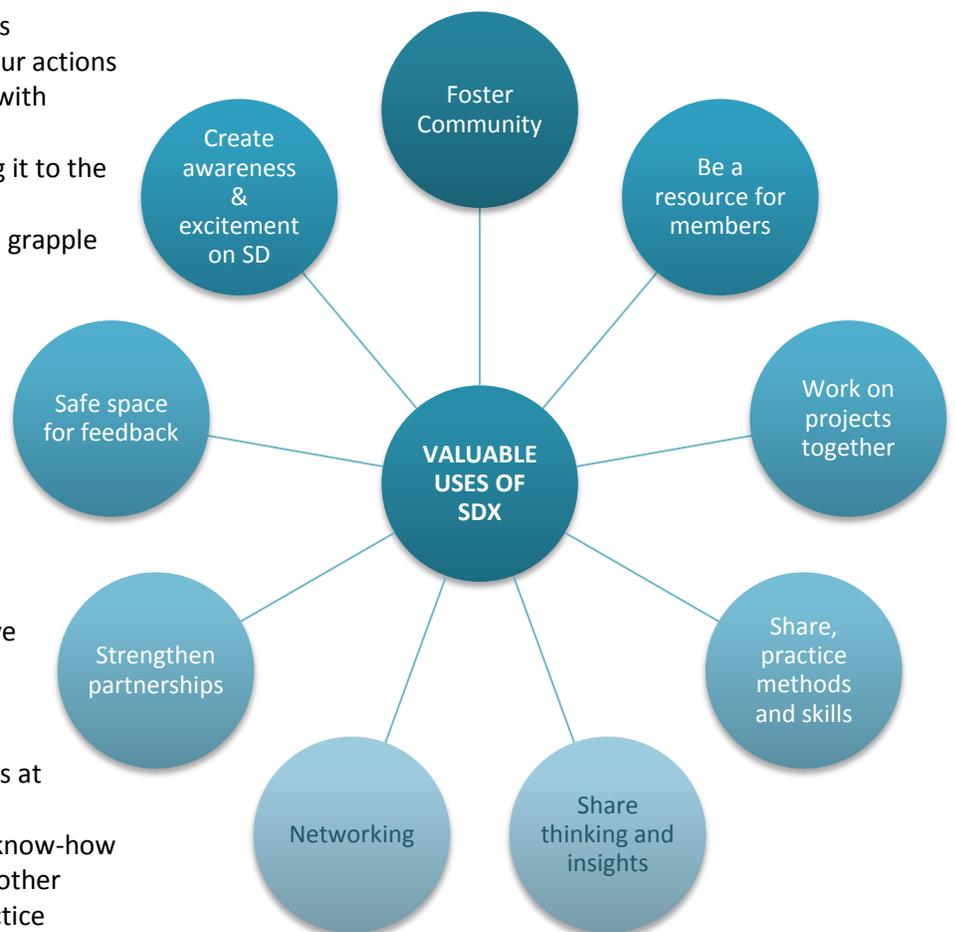
## Plenary Debrief & Participant Survey

Most survey respondents indicated that they had fun at SDX, made new connections that may benefit their work, and gained new insights about systemic design.

Based on the plenary debrief and the survey responses, SDX participants are strongly interested in making SDX a regular occurrence. Participants have a strong bias toward action (learning by doing), but even more than that, working together on a real-life challenge in a cross-sector, creative way, tracking impact, and sharing learning to bring others along on the journey. In participants' comments, there are hints of concern around networking for networking's sake, learning without doing, and missing the opportunity to create some type of tangible change at the level of their organization or on a sticky social issue.

### What would success for SDX look like?

- People keep coming
- Use of systemic design expands
- We accomplish and measure our actions
- We work on a specific project with community
- We do our own work and bring it to the group
- SDX is a place to articulate and grapple with obstacles
- Policy/strategy and delivery – SDX lives on both ends of the spectrum
- We learn new tools, behaviours, and how to apply them to our day job
- Newbies, mentors, new and old, old and old are connected
- We can bring our own experiences into SDX so that we can learn
- There is a balance between reflection and action
- The SDX works for practitioners at multiple levels
- We build our systemic design know-how
- We learn together, from each other
- Meaningful connection to practice



### Questions Raised

- Should we do a new project together or focus on learning and building our existing work?
- How do we know which activities to do?
- How should we construct these days?
- What are our big problems?
- How to share SDX' work outward?

**What are you prepared to offer to SDX?**

- We are committed to learning together

**What subjects should the SDX focus on? What are you interested in?**

- How to sell systemic design to executives
- Working through real problems
- Pop-up mini SDXs in community
- Measuring the impact and value of systemic design
- Exploring case studies (including from other jurisdictions)
- Reverse show and tell: people can bring issues to SDX and use its collective brain for a couple of hours
- How to choose what methods to use and how they can work together, not just what the methods are or how to use them

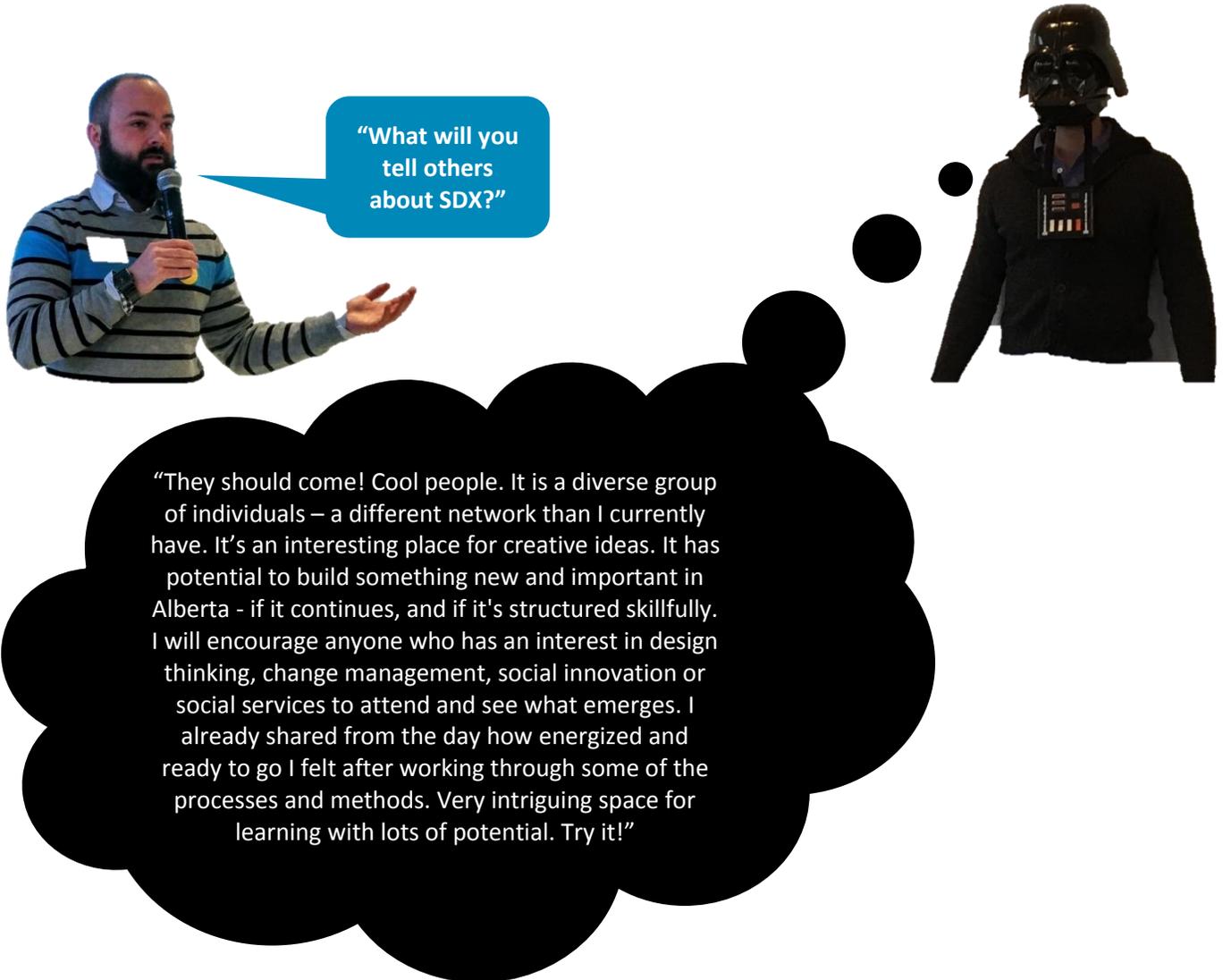


What topics would you like to explore at future SDX sessions?					
Bridging the Gap	Creating a Platform	Learning	Ideating	Particular Topics	Tackling Specific Issues
Policy & Delivery	Bring in outside speakers (Roger Martin, Tim Brown, Yves Behar)	Skills & craft of social innovation	Dragon's Den Format	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	

## Moving Forward with SDX

Respondents' comments indicated they felt SDX1 was well-organized, fun, and inspiring. They overwhelmingly looked forward to more and encouraged the Action Lab and CoLab to continue working together. So, we will.

SDX2 will take place at Action Lab the morning of Friday, March 18 from 10 a.m. to noon, with an optional networking lunch. While the agenda is still emerging, the conveners will build on participants' desire to learn by doing by exploring what shared challenges we can tackle together. Mark your calendars!



"I liked being among people with a rich understanding of systems thinking and the common language really made those conversations fluid."  
– SDX Participant Survey Response

## SDX Participant Survey Results: Multiple Choice Questions

I work for:

23 out of 23 people answered this question



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

22 out of 23 people answered this question



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

23 out of 23 people answered this question



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

23 out of 23 people answered this question



I had fun at SDX.

23 out of 23 people answered this question



### How often would you attend an SDX session?

23 out of 23 people answered this question



### Did you get to wear a Darth Vader mask or Stormtrooper helmet and shoot sticky darts at white boards?

23 out of 23 people answered this question

