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Systemic Design of an Idea Zone at a Science Center

Relating Systems Thinking and Design Conference 4 (RSD4)
Banff, Alberta, Canada – Sept 1-3, 2015

Dr. Frederick Steier & Dr. W. Travis Thompson
University of South Florida
Department of Communication

~~Systemic Design of an Idea Zone at a Science Center~~

Working through a design muddle
with the systemic design
“materials” of conversation and
metaphor

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Presentation flow

- Starting points
- Context, or introducing the muddle
- Overview of the World Café (designed discussion format)
- Detailed overview of the parallel design processes and our choices
- Closing with an opening for your (systemic) redesign ideas

Starting points



American Society for
Cybernetics Conference,
1984; Philadelphia, PA

Museum of Science and
Industry (MOSI), 2011;
Tampa, FL



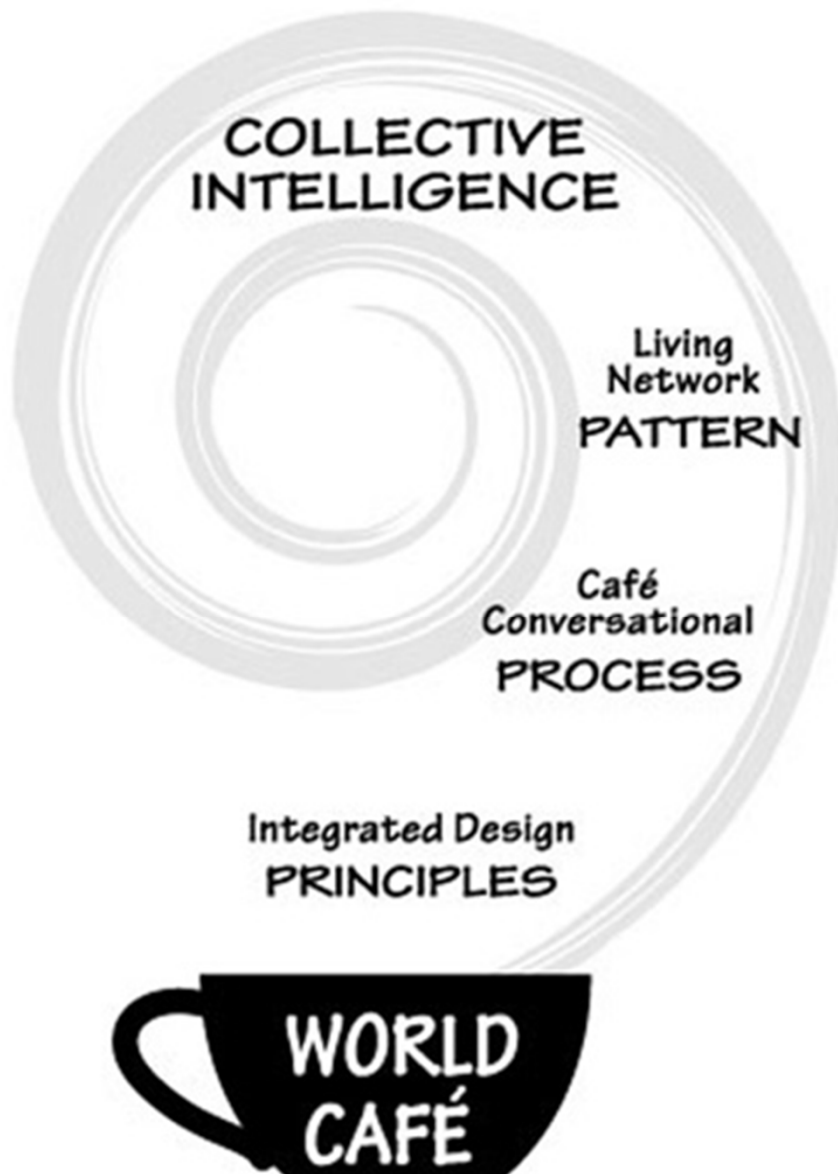
Context (muddle)

Cabinets that previously contained dinosaur bones and other fossils, now with 3D printed artifacts and robotic Lego models.



How might we invite
community ideas for
design of the
emerging Idea Zone?

World Café: *conversations that matter*



Used with permission (World Café book images, 2015)



Participants in the first World Café sketch their ideas of the Idea Zone in the emerging space.

Detail of the “building blocks” and shared butcher block paper with sketches of ideas for the Idea Zone created during the first World Café in the Idea Zone.



MOSI community members and staff in the second World Café explore questions inviting ideas for redesign of the emerging Idea Zone.



Construction of MOSI's 3D Printing the Future Exhibition



The completed 3D Printing the Future Exhibition with World Café participants visiting prior to our Café.



Questions that matter from our 3D Printing World Café

1. Where do good science center ideas come from?
2. Imagine you've been commissioned by MOSI to make or create ideas for the upcoming 3D Printing Symposium. You're in the Idea Zone bringing your ideas to life. What is the experience of creating those ideas like? What does it look like, sound like, smell like, and feel like to create those ideas?

Questions that matter from our 3D Printing World Café

3. You're invited to sketch the Symposium that features your commissioned ideas
4. Imagine it's 4 weeks from now and you're visiting MOSI with friends to show them your 3D printed *ideas* from the Idea Zone being featured in the Symposium. What were the sights, sounds, tastes, and feelings of sharing that excitement of your idea?

Conversations during the third World Café as MOSI/USF community members, leadership, designers, and staff together “muddle through” ideas for designing the emerging Idea Zone.





World Café participants doing “serious play” with Legos and wooden blocks as they explore one of the Café questions.

A whiteboard with “big ideas” and connections across conversations made at each table during Café report-outs.



Sketches and drawings made on butcher-block paper in the middle of a Café table as participants explored the generative questions.



Closing with openings: what we learned

Key principles that emerged from this work, framed as questions

- How might the recursiveness of *designing communication for design* be a leverage point for mutual change? (Nelson, 2008; Glanville, 2012; Thompson et al., 2014)
- How might designed discussion formats (such as the World Café) afford a frame of *learning conversations* at multiple levels of organization? (Brown & Isaacs, 2005; Bateson, 1972a)
- How might design teams hold on to paradox, dilemmas, and conflicting frames as generative of new possibilities? (Glanville, 2012; Schön, 1979; Faste, 1987; Thompson et al., 2014)
- How might exploring metaphors through conversation afford space for creativity and “muddling through” (in Bateson’s sense)? (Madsen, 1994; Schön, 1979; Bateson, 1972b)
- How might multiple layers/levels of a complex organization become engaged in design conversations together with other stakeholders and communities? (Kelley & Kelley, 2013; Nelson, 2012)
- How might ecological design and systems principles inform a healthy change<->stability cycle? (Bateson, 1979; Harries-Jones, 1995)

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