

## **Picking 'Wholes'**

### **Thinking in Systems Workshop**

for **The Center for Internet and Society (CIS)**

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**Dealing with complex, messy, real world problems requires an entirely different skill set and capabilities as the problem perceived may not be the problem to solve.** This workshop is an experiential learning opportunity to gain such abilities through finding sensitive solutions that will transform the situation. **The pedagogy involves experiential and collaborative learning through short assignments / lectures / discussions / doing and making activities.** Groups will explore selected problems to find worthwhile solutions.

## **Outline**

The workshop will take up a real world problem and provide an experiential journey through the Systems landscape, highlighting the relevant concepts along the way. Topics covered will include.

>>>Day 1

### → **Why Wholes**

- ◆ Synergy / Emergence

### → **Relationships**

- ◆ Emergence / Stocks, Flows & Feedback Loops
- ◆ **Mapping**

### → **Anticipation**

- ◆ Consequences / What if

### → **Insights**

- ◆ Opportunities
- ◆ **Finding Purpose**
- ◆ Finding the real problem / issues. Larger Purpose, littler purpose/s
- ◆ Finding Direction
- ◆ **Finding Leverage**

→ Decision

- ◆ Assessments / Judgements
- ◆ Desirable / Feasible / Viable

→ **Imagining Solutions**

- ◆ Possibles / Opportunities / Visualise / Sketch / Concepts / Hypotheses

→ **Validation**

- ◆ Prototype
- ◆ Make / Do / Test

→ Create / Act

**Venue requirements**

- Flexible furniture - chairs and tables may need to be rearranged in different ways for different activities.
- Softboards to pin up charts etc.
- White board with color markers.
- Projection facility.

**Materials**

A basic list which will allow presentations as well as quick model making when necessary will include:

- **PVC pipe (approx. 15mm X 4m) - 1 pc.** (Please get this, we will need it for a session).
- Chart papers - 10 sheets
- A4 size paper - 100 sheets
- Colored markers - 3 set
- Post-its - 3 set of different colors
- Stapler - 2
- Punch - 2
- Scissors - 2
- Paper cutters - 2
- Cardboard / corrugated board - 0.5m X 0.5m, 3 sheets
- Ice cream sticks - 1 box
- Rubber bands - 1 box
- Plasticine (clay) - 3 blocks
- Cloth - 1.5 m
- Metal wire - 2 m

- Cello tape - 2 nos (10mm + 25mm)
- Fevicol - 2 tubes

## Reading list and references

### SYSTEMS

Donella H Meadows – Thinking in Systems

Publisher: Chelsea Green Publishing Co.

[http://www.oss.net/dynamaster/file\\_archive/040324/48c97c243f534eee32d379e69b039289/WER-INFO-73.pdf](http://www.oss.net/dynamaster/file_archive/040324/48c97c243f534eee32d379e69b039289/WER-INFO-73.pdf)

<http://donellameadows.org/archives/dancing-with-systems/>

<http://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>

Helsinki Design Lab – Recipes for Systemic Change

Download from

[http://www.helsinkidesignlab.org/peoplepods/themes/hdl/downloads/In\\_Studio\\_Recipes\\_for\\_Systemic\\_Change.pdf](http://www.helsinkidesignlab.org/peoplepods/themes/hdl/downloads/In_Studio_Recipes_for_Systemic_Change.pdf)

### MAPPING

<https://www.systemsorienteddesign.net/index.php/giga-mapping/100-giga-mapping>

<http://www.systemsorienteddesign.net/index.php/giga-mapping>

<http://www.dubberly.com/concept-maps/creating-concept-maps.html>

<https://ncase.me/loopy/>

<https://medium.com/disruptive-design/tools-for-systems-thinkers-systems-mapping-2db5cf30ab3a>