Systems Thinking for Design

Session 3

https://sites.google.com/a/iiitdm.ac.in/sudhirvs/courses/systems-thinking-for-design

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, KANCHEEPURAM

- Sudhir Varadarajan, Ph.D.

Session outline

Group Formation

Collective Problem Discovery

Identifying interesting problems

- From deep reflection into our own everyday experience ... Problems that have personally bothered you, issues that you are passionate about, where you feel compelled to change the status quo

- From an understanding of the issues/challenges faced by specific category of people/organizations … gleaned through personal observation and various information sources (newspapers, websites)

- From the literature (academically researched papers)

Suggested boundaries

- Issues should be relevant to our context – local and your experience

- Restricted to industries in the manufacturing sector, preferably automotive, aerospace, construction, consumer electronics, defence, electrical equipment, machine tools, medical devices, transportation

- Possible to grapple with your current knowledge base + some stretch

- Potential for a technology-enabled solution (not policy prescriptions) … preferably cyber-physical and affordable solutions

- Revisit your problem statement (10 min)

Exercise 3.1: Discover collaborators (30 min)

Interaction	Roll No.	1st Choice	2nd Choice	How do you feel?	Notes (Accepted / Rejected / Combined / New)
INITIAL				☺ ☺ ☹	
1				☺ ☺ ☹	
2				☺ ☺ ☹	
3				☺ ☺ ☹	
…					
…					

Rule #1: 50% of interactions should be outside your discipline

Rule #2: You can meet a max of 10 people

100 (+ve), 010 (Neutral), 001 (-ve)

Now, reorganize into groups (15 min)

Look into your assessment and pick the problem you want to work on
Atleast 2 different branches should be represented in each group
Once ready, register your group name/problem in Google Docs

Group 1,
Problem 1

....

Group 30,
Problem 30

Start sitting in these groups hereafter

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Collective Problem Discovery

Exercise 3.2 (30 min + 1 week)

- As a group discuss and identify the common problem of interest and describe the various facets of the problem…
- Make a start now and complete the research over the week. You can divide the research areas amongst yourselves. Research sources can be
  - Your direct observations of people/activities & interviews
  - Supported by a summary of the latest thinking on the problem
  - Pls refer to e-Library, Google Scholar and other reliable sources
- After research each group member should prepare a 2-3 page summary of the issues as understood by him/her. Ensure there is no duplication of topics. The content should be structured in a logical manner, either timeline or type of issue.
- Bring a copy of the same for discussion in next class

Next Session on Systems Concepts