Reshaping Communication Design Tools.

Complex systems structural features for design tools.

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The level of interest in Complexity Science has been constantly increasing. It was built around an interpretative paradigm. The interaction processes are able to form more complex behaviours and to change the structural conditions of the system itself.

CONTEXT.


Science VS. Design.


Hard sciences study Complex Systems,
Design acts within them.

Acting within complexity is a process that implies to cope with wicked problems.
COMPLEXITY AND DIAGRAMS.


What does it mean to design for a highly unpredictable bottom up system with non linear interactions?
Designer’s key competences.

To see - understand frameworks;
To show - visualize information;
To fore-see - anticipate critically.
The design ability of render and describe emerges as an answer to the need of orientation.

To see - understand frameworks;
To show - visualize information;
To fore-see - anticipate critically.
Our definition of diagram includes all those artefacts (maps, scenarios, charts, storyboards, etc.) that have a *revealing capacity*, a diagrammatic attitude finalized to the act of design.
Diagrams as generative tools.

Operating devices able to reveal the weak links and the driving forces that can facilitate (or hinder) a design intervention.
A graphic shortcut.

“It is a machine that is almost blind and mute, even though it makes others see and speak”.

A diagrammatic design is not necessarily the one that uses diagrams, but is the one that behaves as a diagram.


Diagrams are tools to reduce the gap.

**Knowledge-gap**
The incomplete or inaccurate representation of the system.

**Problem-solving-gap**
The difficulties to cope with project tasks.
COMPLEX SYSTEMS AND DIAGRAMS.


For a new mindfulness.

The structural features of Complex Systems have been our key points to outline a methodology that use diagrams to offer designers a new mindfulness in the use of design tools.
TO ACQUIRE INFORMATION IN A COMPLEX SYSTEM

1. **ANALYSING: PARTS**
   - to analyse elements
   - to set a process of framing
   - to set a process of coarse graining

TO TURN INFORMATION INTO KNOWLEDGE

2. **REPRESENTING: RELATIONS**
   - to communicate visual descriptions of the system

3. **PINPOINTING: CLUSTERS**
   - to rearrange information

TO MANAGE A DESIGN INTERVENTION IN COMPLEX SYSTEMS

4. **TIMING: HORIZONS**
   - to define how far the time horizon will be
   - to create a monitoring regime

5. **TELLING: SCENARIOS**
   - to imagine futures
   - to build up coarse-grained stories
Complex Systems consist of a large number of elements.

Tracing a structure of the system under examination.

An analytical process it is not sufficient to fully understand a Complex System, it consents to identify the system elements and their features.
ANALYSING.

To analyse elements.
ANALYSING.

To analyse elements.

landover baptist church
grey skaggs
target mkt
the aesthetic meal foundation
together we can defeat capitalism
grey sweatshirt revolution
hyper redundant merit
free words project
Unamerican activities
women's rights
public space initiative
casuarina de pub
cassam
SCCPR
Team 7
FIRS network
social activism
reclaim the streets
mayday
brainframes
advertisers
urbanised
I'm changing the climate
motivated
estern
boy bomb nation
bordergaines
dissidences communes
major vida corp
infoblogs
RAP
infiltration
strano network
Ether blast
the willed bank
psychos de france
sexy shock
MDIR
data lab
stay free!
01300/1110/11101
@™ark
post consumer production
arttivist.com
corporate watch
the griddle
conglomerico
RAP
tactital media crew
corporate watch
taxi drivers
are you generic?
modern TV
the yes men
disinformation
guerrilla mkt
disinformation
new global vision
candida
false advertising
IAA
negativity
propaganda
bugs up
earth first!
the detroit project
Complex Systems are open systems. Defining the scale of the description.

Complex Systems lack explicit boundaries that are settle on to confine the system for a particular purpose.
ANALYSING.
To analyse elements.
To set a process of framing.
To set a process of coarse graining.


Complex Systems are open systems. Making approximation by ignoring datails on finer scale.

It set the right level of details in order to maintain a manageable but recognisable image of the system.
The field of Complex Systems is interested in relationships. Translating the strengths and the tensions among agents.

Diagrams are the typical instruments used by designers to describe reality. Diagrams display not only quantitative data but also viewpoints, perspectives and values of the system observer.
A political act.

The political nature and the principle of responsibility

Each representation of reality are intentionally structured and thus arbitrary, anexact and incomplete.
Complex Systems consist of individual agents clustered together.
CLUSTERING AND OBSERVING THE DENSITY OF THE ELEMENTS.

It is a process of pattern recognition.
Complex Systems have a history, interaction are non-linear.

Making periodical examination of interventions.

Any analysis of a Complex System that ignores the dimension of time is a synchronous snapshot of a diachronic process.
As future of a system are imaginative, transformation into stories helps coping with complexity.

Conceiving the future as projective space.

Designers could consider the future as a source of creativity. A coarse-grained story is the set of all alternative fine-grained stories that converge on a specific behaviour of the observed and diverge on all the possible behaviours of what is not observed.
To SUM UP:

To Acquire Information

1. **Analysing: Parts**
   - to analyse elements
   - to set a process of framing
   - to set a process of coarse graining

To Turn Information into Knowledge

2. **Representing: Relations**
   - to communicate visual descriptions of the system

3. **Pinpointing: Clusters**
   - to rearrange information

To Manage a Design Intervention

4. **Timing: Horizons**
   - to define how far the time horizon will be
   - to create a monitoring regime

5. **Telling: Scenarios**
   - to imagine futures
   - to build up coarse-grained stories

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We do not replace traditional design tools, we suggest a different use. To develop the ability to think in a complex rather than complicated way. To value equally connections and elements. To consider the system unpredictability as a source of creativity and innovation.
THANK YOU!