Designing Conversations for Socially-Conscious Design


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“Design and cybernetics are really the same thing.”
— Ranulph Glanville, 2014

— RDS3 Conference, Oslo
Challenges of design

- Energy
- Global warming
- Water
- Food
- Population
- Health
- Equality
- Social justice
Challenges to design

Energy
Global warming
Water
Food
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Challenges to design

Energy
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Simple problems

Complex problems / systems of systems
“Wicked problems”*

* In the strict sense of Rittel & Webber
Design = Social
Designing with myself
Designing with others
Design = Conversations for Action
Designing with myself
Designing with others
Designing Conversations is the heart of 21st-century design practice
Designing for Conversations by Everyone
Designing for Conversations for Design
We believe cybernetics offers a foundation for 21st-century design practice, with this rationale:

If design, then systems:

• The prominence of digital technology in daily life cannot be denied (or reversed). Digital technology comprises systems of systems (Internet of Things).

• Design has expanded from giving-form to creating systems that support interactions. Human interactions span thinking and acting, whether mundane or metaphysical.

We must model and tame this complex mesh of mechanisms.

Therefore: systems literacy is a necessary foundation for design.
If design, then systems.

If systems, then cybernetics:

• Digital interactions comprise reliable connections, communication, and feedback. Human interactions comprise purpose, feedback, and learning.
• The science of communication and feedback, interaction and purpose, is cybernetics. We must model communication and intention in a common frame. Therefore: cybernetics is a necessary foundation for design.
If design, then systems.

If systems, then cybernetics.

If cybernetics, then second-order cybernetics:

- Framing “wicked challenges” requires articulating human values and viewpoints. Values and viewpoints are subjective.
- Designers must offer a persuasive rationale for our subjective viewpoints.
- Modeling subjectivity is the province of second-order cybernetics.

We must embrace values and subjectivity at the heart of designing.

Therefore: second-order cybernetics is a necessary foundation for design.
If design, then systems.

If systems, then cybernetics.

If cybernetics, then second-order cybernetics.

If second-order cybernetics, then conversation:

• Taming “wicked challenges” must be grounded in argumentation.
• Argumentation requires conversation so that participants may understand and agree.
• Agreement is necessary for collaboration and effective action.

We must embrace argumentation and collaboration to the heart of 21st-century design. Therefore: conversation is a necessary foundation for design.
If design, then systems.

If systems, then cybernetics.

If cybernetics, then second-order cybernetics.

If second-order cybernetics, then conversation.

Design... from Thinking to Conversation
What is the process of Design Thinking?

- Observe
- Brainstorm
- Prototype
What Does that mean?

- Ethnography
- Open-ended idea generation
- Making and testing

1. Observe
2. Brainstorm
3. Prototype
What Does that mean?

Observe

Brainstorm

 Prototype

Evaluate
What Does that mean?

Observe

Brainstorm

Prototype

Iterate

Evaluate
Limitations

Specific?
Rigorous?
Repeatable?

Observe
Brainstorm
Prototype

Iterate
Evaluate
Limitations

Specific?
Rigorous?
Repeatable?

- Observe
- Brainstorm
- Prototype

Evaluate
Iterate

Clear?
Quantifiable?
Directed?
Rethinking...

Specific?
Rigorous?
Repeatable?

Observe

Brainstorm

Prototype

Clear?
Quantifiable?
Directed?

Iterate
Evaluate
Design the Conversations

- Design the Conversations
- Brainstorm
- Prototype

Iterate
Evaluate
Design the Conversations

- Design the Conversations
- Brainstorm
- Prototype

Iterate
Evaluate
Find a Focusing Question

Design the Conversations

Find a Focusing Question

Prototype

Iterate

Evaluate
Requirements for Focusing Questions

Actionable information flows, not transformation of mass & energy—so it participates in the new economy, the move from “atoms to bits.”

Economic potential—removing uncertainty in the market, creating order from disorder, lowering the human cost of achieving our goals, are all worth something.

Consistent with the social system—connecting to who we are (our history) and what we can see ourselves engaging in.

Engage individuals who want to do it.

Reveal the necessary variety of expertise required for exploring the question, so that we can define it and make it available (requisite variety).

Teach the organization as a whole—so that what is learned can be reproduced.
Find a Focusing Question

Economic Potential
Using bits & reducing uncertainty

Social Potential
Consistent with who we are & want to be

Systemic Potential
Engages variety

Design the Conversations

Find a Focusing Question

Prototype

Evaluate

Iterate
Prototype a Solution

1. Design the Conversations
2. Find a Focusing Question
3. Prototype a Solution

Iterate
Evaluate
Iterate & Evaluate

Design the Conversations

Find a Focusing Question

Prototype a Solution

Iterate

Evaluate
Iterate & Evaluate

Measure Improvements for Users

Design the Conversations

Find a Focusing Question

Prototype a Solution

Iterate

Evaluate
Iterate & Evaluate

Measure Improvements for Users

Measure Convergence on design goals

Design the Conversations

Find a Focusing Question

Prototype a Solution
Iterate & Evaluate

Measure Improvements for Users

Measure Convergence on design goals

Conversations to Agree on Means

Iterate

Evaluate
Conversation is the core

Measure
Improvements for Users

Measure
Convergence on design goals

Conversation to Agree on Means
Conversation is the core

Measure Improvements for Users

Measure Convergence on design goals

Conversation to Agree on Means
Design... from Thinking to Conversation
Rethinking Design Thinking

Conversation to Agree on Means
Design as Conversation

Conversation to Agree on Means
Design as Conversation

Conversation to Agree on Goals

Conversation to Agree on Means

Iterate

Evaluate

Does doing this?

... achieve this?
Design as Conversation

Conversation to Agree on Goals
Design as Conversation

Conversation to Agree on Goals

Do we have sufficient variety... to achieve this?
Design as Conversation

**Conversation to Design the Designing**

**Conversation to Agree on Goals**

Do we have sufficient variety... to achieve this?

Iterate

Evaluate
Design as Conversation

Conversation to Design the Designing

Iterate
Evaluate

Conversation to Agree on Goals

Iterate
Evaluate

Conversation to Agree on Means
Design as Conversation

**Conversation to Design the Designing**

- Iterate
- Evaluate

**Conversation to Agree on Goals**

- Iterate
- Evaluate

**Conversation to Agree on Means**

- Iterate
- Evaluate

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Do we have sufficient variety……to achieve this?
Given the conversation we've just had, focus on the questions above to make the next conversation successful.

1. Bottom-up approach: Keep asking the important questions that ensure the right participants and the right information in every conversation.

In short, given where we want to go:
- Who are the necessary and sufficient participants?
- What is the necessary and sufficient information?
- What did we learn?
- What questions do we answer next?
- Who can we continue to use who are still essential?
- What expertise do we need to answer those questions?
- What information do we need to answer those questions?
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   What information do we need to answer those questions?
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CONVERSATION

Participants become

New knowledge builds

External information feeds

Selection mechanism determines criteria for

Next conversation establishes goal for

What did we learn?

What questions do we answer next?

What information do we need to answer those questions?

Who can we continue to use who are still essential?

What expertise do we need to answer those questions?
Given the conversation we've just had, focus on the questions above to make the next conversation successful.

**NEW KNOWLEDGE**

- **BUILDS**
  - What did we learn?
  - What questions do we answer next?
  - Establishes goal for
    - Determines criteria for
      - Selection mechanism
        - Feeds
          - Next conversation
            - External information
            - Participants become
              - Possible participants

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Client Engagement can be modeled as a series of stages—catalyst, ideation, solution, delivery, and evaluation—each with specific goals, and therefore specific requirements for participants and information to feed the next conversation.

The engagement lifecycle moves through a series of stages, albeit not always smoothly.

Core roles—often the “triumvirate” of account, planning, and creative, but increasingly specialized to a given 360° engagement—are responsible for driving to results, and for communicating across stages and across agency and client groups.

Useful stages that apply across most engagement types are:

- catalyst stage (first interaction): initial contact with client
- ideation: building a model of desired outcomes
- solution: creating a plan to achieve the outcomes
- delivery: executing the plan, deploying the solution
- evaluation: measuring against goals, then adjusting.
Design as Conversation

Conversation to Design the Designing

Conversation to Agree on Goals

Conversation to Agree on Means

?
Design as Conversation

Conversation to Design the Designing

Iterate
Evaluate

Conversation to Agree on Goals

Iterate
Evaluate

Conversation to Agree on Means

Iterate
Evaluate

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Notes on the Role of Leadership and Language in Regenerating Organizations

Organizations are living systems.
An organization is its language.

Ultimately, an organization consists of conversations: who talks to whom, about what.

Each conversation is recognized, selected, and amplified (or ignored) by the system. Decisions, actions, and a sense of valid purpose grow out of these conversations.

Conversation leads to agreement. Agreement leads to transaction.
Narrowing **language** increases efficiency.

Organizations create their own internal language to solve specific problems.

This language serves as a kind of shorthand: Managers use it every day, knowing they will be clearly understood.

Over time, this internal language grows increasingly specialized—and narrow.
Narrowing **language** also increases ignorance.

The organization’s internal language is designed to help managers facilitate present-day business—not look beyond it.

Using the internal language, managers increase efficiencies, but cannot recognize new fields of research, new discoveries, new approaches.
Past language limits future vision.

Managers understand the organization’s past behavior. But this knowledge, and the language that accompanies it, limit their vision of the organization’s potential future state.

Using the language of the past, managers may try to provide a vision for the future. But it is an old future—a memory of what the future could be.

Managers may strive for fundamental change, but their language prevents them from achieving it.
Expanding language increases opportunity.

The conversations necessary for generating new opportunities come from outside the system.

For an organization to survive, it must be able to acquire new, relevant language domains.
To regenerate, an organization creates a new language.

To support an organization's future viability, effective decision makers actively introduce change into the system.

They do so by generating new language that appropriate groups in the organization come to understand and embrace.

This new language does not overtly challenge the pre-existing, efficient system, but rather creates new distinctions and supportive relationships.
Design as Conversation

Conversation to Design the Designing

Iterate
Evaluate

Iterate
Evaluate

Conversation to Agree on Goals

Iterate
Evaluate

Iterate
Evaluate

Conversation to Agree on Means

Iterate
Evaluate

?
Design as Conversation

Conversation to Design the Designing
  - Iterate
  - Evaluate

Conversation to Agree on Goals
  - Iterate
  - Evaluate

Conversation to Create New Language
  - Iterate
  - Evaluate

Conversation to Agree on Means
  - Iterate
  - Evaluate

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A. Conversation to Agree on Goals
   Decide why we are doing what we are doing
   - to create value for shareholders
   - to pursue our vision for a market
   - to commit to sustainable innovation.

B. Conversation to Design the Designing
   Identify irreplaceable expertise (variety) for every conversation.

C. Conversation to Create New Language
   As a new space of possibilities evolves, frame the situation and define new language.

D. Conversation to Agree on Means
   Decide how to achieve our goals, that is, create a plan for the actions of the enterprise.
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Design = Social = Conversations for Action

If we converse explicitly about goals, we are transparent about frames and values. (This is ethical.)

If we converse about the means to achieve those goals, we more fully engage participants and their abilities, improving outcomes. (This is collaborative.)

If we converse to co-evolve new language, we can escape the limitations of current viewpoints, and create new frames and new possibilities. (This is innovative.)

If we converse about the design process, we enter all our conversations as participants, answerable for our actions. (This is responsible.)
Design = Social = Conversations for Action

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(To agree on goals is ethical.)

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(To create new language is innovative.)

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(To design the designing is responsible.)
Design = Social = Conversations for Action

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“Conversation is the bridge between cybernetics and design.”

— Ranulph Glanville, 2009
Thank you.
See pangaro.com/rsd5 for slides and references

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“Design is the action; Second-order Cybernetics is the explanation.”

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