



## Dialog Mapping: An Approach for Wicked Problems

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**D**ialog Mapping is a graphical technique for creating a shared map of a meeting conversation. A facilitator uses the Dialog Mapping method to capture the key questions, ideas, and arguments that come up as the conversation unfolds, recording them in a network-like map for everyone in the meeting to see. The technique works for any topic or problem, but shines best when used with technically complex problems and “socially complex” groups ... those with widely differing views on a dynamically complex or “wicked” problem.

### History of IBIS.

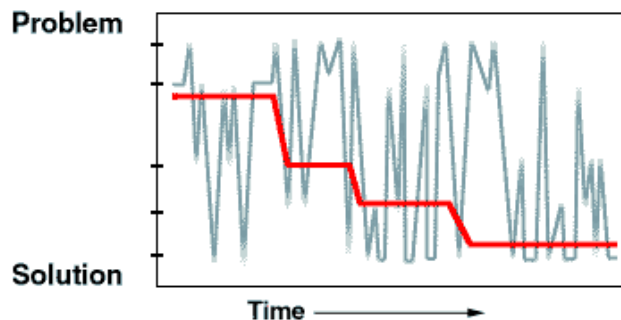
Dialog Mapping encapsulates the Issue Based Information System (IBIS) structure that was developed in the early 70's by Horst Rittel. Rittel was seeking to help groups dealing with complex issues, for example city planning dilemmas such as whether to route the highway through the city or around it. Rittel also coined the term “wicked problem” to describe such dilemmas. In the last decade software tools have been created to manage large IBIS maps.

Some problems are so complex that you have to be highly intelligent and well informed just to be undecided about them.  
--Laurence J. Peter

### Wicked Problems.

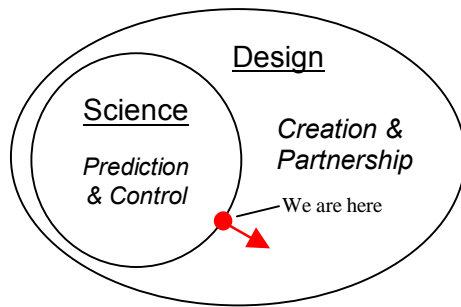
A wicked problem has four defining characteristics:

- (1) You don't understand the problem until you have formulated and perhaps even fielded a solution;
- (2) The stakeholders (those who have a stake in the outcome) have radically differing world views, and thus differing linguistic frames;
- (3) The constraints on the problem solving process – deadlines, budgets, who is on the team, the organizational structure – change over time; and
- (4) The problem is never “solved” in the traditional sense, you simply run out of resources (i.e. time or money).



## The Passing of the Age of Science.

During the Age of Science we had a foolproof problem solving approach: (1) define the problem, (2) gather the data, (3) analyze the data, (4) formulate a solution, and (5) implement the solution. This linear approach, upon which virtually all problem solving methods are based, was understood to work no matter how complex the problem. If your project was behind schedule or over budget, it was simply because you had not done a good enough job at one or more of these steps, e.g. you had not gathered enough data. However, recent cognitive studies have revealed that people do not actually think or learn in this linear fashion, but rather in an opportunity-driven process that more resembles an earthquake than a waterfall.



In the emerging era, you still need the rigor of the scientific approach, but it alone is not nearly rich enough for the panoply of wicked problems that face us as in our organizations and as a society. The problem solving process is now primarily social, rather than individualistic. The process goal is a solution that works and can be embraced by all of the stakeholders, not “the right answer.” In this environment, a new set

of tools is needed to help groups create shared understanding, shared meaning, and shared commitment. Dialog Mapping is such a tool.

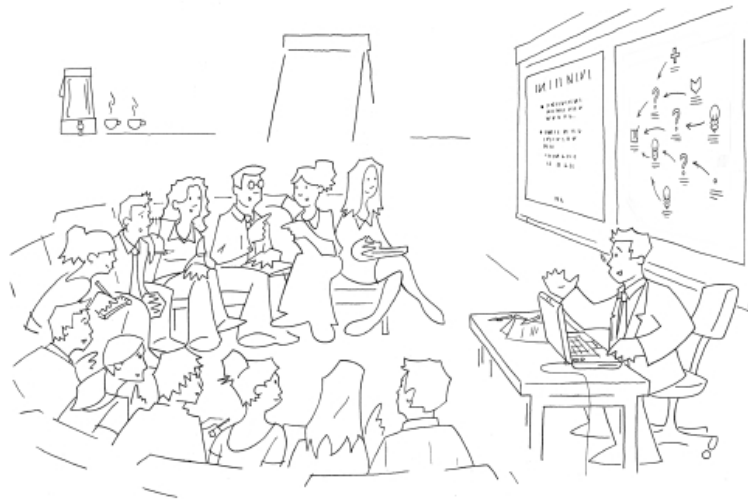
## Dialog Mapping.

Dialog Mapping is based on two fundamental ideas:

- Ownership and *shared understanding* are the key outcomes of every single meeting;
- Shared display fosters shared understanding.

At the heart of Dialog Mapping is IBIS, a simple language for mapping the structure of any conversation, no matter how complex or contentious. In IBIS there are just three basic elements: **questions**, **ideas**, and **arguments** (e.g.

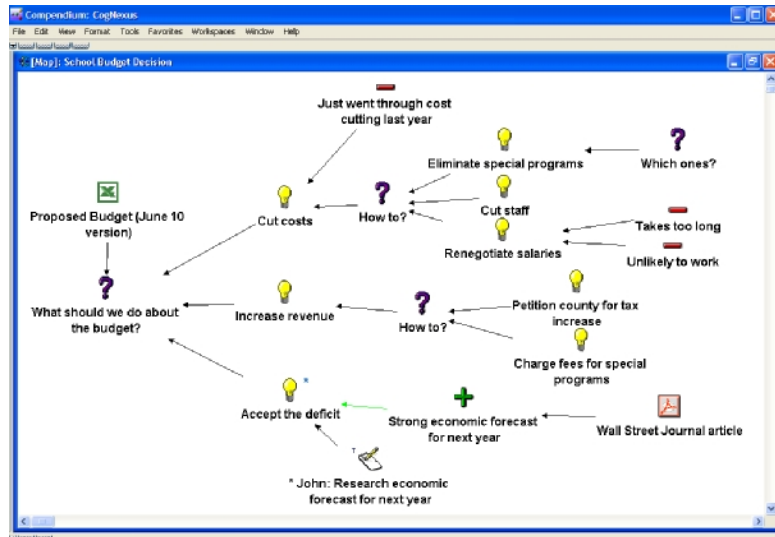
pros and cons). The ideas respond to the questions, offering possible solutions; the arguments argue for and against the various ideas. Questions can expand on or challenge other questions, ideas, or arguments. Any creative conversation – brainstorming, design, planning, analysis, problem solving – can be captured in terms of IBIS questions, ideas, and arguments.



Dialog Mapping requires the use of a shared display, which could be whiteboards, flipcharts, or any handy writing surface. There are also software tools, QuestMap™ and Compendium, that can be used by groups or individuals to create and manage electronic Dialog Mapping maps of any scale and complexity. Facilitating a group using the software and a bright computer display screen is an especially effective way of helping a group work through a wicked problem.

The Dialog Mapping process is not linear, and does not even require starting with a question. Typically, however, a group starts with several related questions of the sort “What should we do about X?” and “How should we do Y?” Along the way, questions of fact (“What is the case about X?”) and meaning (“What does X mean?”) emerge and are addressed. A complete map usually includes exploration of the questions “Who are the stakeholders?” and “What are the decision criteria?” Group memory is powerful byproduct of the process: as decisions are made, their full context and rationale is implicitly recorded in the Dialog Map.

The facilitator listens as each person speaks, capturing his or her comment as a question, an idea, or an argument. Occasionally there are purely informational comments that are captured as notes. Action items are captured and tagged, and any reference documents are linked into the map as well. From time to time the facilitator reads back the most recent portion of the map, validating it with the group. Over time, this process allows each person to see (a) that the group has really heard his or her comments, (b) the relationship of his or her ideas to the others in the group, and (c) the emergent thinking and learning of the group as a whole.



Coming to consensus about possible solutions is made immensely easier when the group has a shared display of their linking and learning as it unfolds. As ownership in the map grows, so does shared understanding about the problem space and shared ownership of the solution space. When the decision gets made there is an exceptional level of ownership and commitment to it, as well as a concise record of the rationale behind the decision.

*Dialog Mappers allow the intelligence and learning of the group to emerge organically. Instead of agendas and control, the group's energy is reflected and channeled in a self-correcting way by each person's ability to see, in the structure of the Dialogue Map, how their own comments contribute to the coherence and order of the group's thinking. Dialog Mapping is a new paradigm of facilitation and meeting process.*

CogNexus Institute offers a variety of training and consulting services, including basic and advanced two-day workshops in Dialog Mapping; the software is included. See <http://cognexus.org/id41.htm> or call 707.256.3425 for more information.

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