Dialogue Mapping Demonstration

Jeff Conklin¹ CogNexus Institute, Napa, CA

Abstract

Dialogue mapping is an interactive process for facilitating meeting discussions creating a shared map of the conversation. A facilitator uses the IBIS (Issue Based Information System) method to capture the key questions, ideas, and arguments that come up as the conversation unfolds, recording them in a graphical diagram for everyone in the meeting to see. The technique works for any topic or problem, but seems to shine best when used in design tasks, that is, interactions focused on planning, solving a problem or creating something abstract such as software or policy.

Background and Purpose

Traditional approaches to problem solving and design have asserted that the problem should be clearly defined before solutions are considered. However, cognitive studies [Guindon 1990] have shown that, when faced with a complex and novel problem, even very bright and experienced people use an "opportunity driven" exploratory process that careens around the problem-solution space, so they are learning about the problem and possible solutions in parallel. This insight helps clarify the situation when a problem is "wicked" [Rittel & Webber, 1973]: proposed solutions primarily serve to illuminate hidden aspects of the problem, there are many stakeholders, "immutable" constraints change, and there is no definitive solution. Seen in this light, projects succeed or fail on the project team's ability to overcome communication barriers and to collectively make sense of a dizzying array of conflicting points of view and inconsistent "facts."

This demo presents *Dialogue Mapping* [Conklin 2006], a new approach to project work and policy design in which collective intelligence is achieved through conducting an *issue-based* exploration of the problem-solution. The methods have been proven in strategic planning, product development, aerospace project planning, environmental planning, policy formulation, and system design.

From the standpoint of the participant in a Dialogue Mapping session, the approach looks quite familiar. It takes place in a regular meeting room and has three parts:

- A graphical hypertext software system² designed for real-time hyperlinked semi-structured modelling;
- A Dialogue Mapper (the facilitator) who actively works with the group throughout the session, forming a bridge between the group's conversation and the representation of it as projected on a computer display screen;
- A conceptual framework which structures the knowledge and shapes the group's process; in the case of Dialogue Mapping, this is IBIS [Kunz



¹ Jeff Conklin: CogNexus Institute, Napa, CA jeff@cognexus.org

² "Graphical hypertext" systems are those in which the primary access to and navigation of small, 'lightweight' nodes and links is through a graphical map browser, rather than links embedded in nodes/documents exemplified by the Web.

and Rittel 1970].

Dialogue Mapping's uniqueness is the particular way in which it lies at the intersection of these three elements (see Figure 1). Each pairing of these elements describes a familiar, but less potent, combination:

- The use of conceptual frameworks in meetings (top two circles) is not new³. Even the use of a brainstormed list on a flipchart page is a familiar example of a facilitated conceptual framework.
- The early Design Rationale experiments were a blend of a hypertext system with a conceptual framework (bottom and right circles) that was oriented to the structure of Empirical studies design decisions. found that even the simplest conceptual framework proved to be onerous to subjects immersed in and focused on the process of design.
- 3. Meeting facilitation techniques that use a hypertext system projected on a screen (bottom and left circles) were

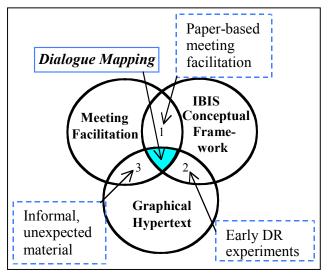


Figure 1: The three elements that constitute the Dialogue Mapping approach

some of the earliest collaboration technology experiments, and mind mapping tools continue to be used in this way.

In our experience the combination of these three elements in a single approach is very powerful, but there appears to be an art to combining them effectively. Three of the most critical technology elements in this alchemy are *detecting new questions and making them explicit*, *validating the map with the group*, and *chunking material into sub-maps*. These elements taken together allow the dialogue mapper to incorporate expressions of a wide-range of competing and contentious points of view into a single representation.

Structure of the Demo

In Part 1 of the demo, Jeff Conklin introduces a few key concepts:

- **Wicked problems**: you must come up with solutions in order to understand what the problem really is ... what the real issues are ... and the problem definition depends on *whom* you ask!
- Social complexity: the number and diversity of stakeholders whose participation is essential.
- **Opportunity-driven problem solving:** empirical evidence says creative thinking does not follow a linear process!
- **Shared understanding:** overcoming fragmentation requires forging shared understanding about all aspects of the problem-solution space.

³ Indeed, from a modeler's perspective it is an unavoidable aspect of cognition. Here we mean a learned conceptual framework used deliberately.

• **Issue-based structure**: the deep structure of conversations, debates, documents, and blogs is issue-based (i.e., organized by questions); disagreement and conflict can represented and explored quite naturally at this deeper level of structure.

In Part 2 of the demo participants will role-play being in a real meeting, working on an issue such as "What can we do about global warming?", and will experience the dialogue mapping process directly.

Part 3 of the demo will be for Q&A. Often people don't really know what their questions are about dialogue mapping until they've had a chance to experience it.

References

Buckingham Shum, Simon, Albert M. Selvin, Maarten Sierhuis, Jeffrey Conklin, Charles B. Haley and Bashar Nuseibeh (2006) "Hypermedia Support for Argumentation-Based Rationale: 15 Years on from gIBIS and QOC", pp.111-132, in Dutoit, *et al.* (op cit).

Conklin, J. (2006). Dialogue Mapping, Chichester: Wiley.

Dutoit, A., McCall, R., Mistrik, I. and Paech, B. (2006) *Rationale Management in Software Engineering* (Eds.). Springer-Verlag/Computer Science Editorial

Guindon, R. (1990) "Designing the Design Process: Exploiting Opportunistic Thoughts", Human-Computer Interaction, Vol. 5, pp. 305-344.

Kunz, W. & Rittel, H. (1970) "Issues as Elements of Information Systems," Working Paper 131, The Institute of Urban and Regional Development, University of California, Berkeley.

Rittel, H. & Webber, M. (1973) "Dilemmas in a General Theory of Planning", *Policy Sciences*, Vol 4, pp. 155-169, Elsevier Scientific Publishing Company, Amsterdam.