

## Wicked Problems

A wicked problem is one for which each attempt to create a solution changes the understanding of the problem. Wicked problems cannot be solved in a traditional linear fashion, because the problem definition evolves as new possible solutions are considered and/or implemented. The term was originally coined by [Horst Rittel](#).

Wicked problems always occur in a **social context** -- the wickedness of the problem reflects the diversity among the stakeholders in the problem.

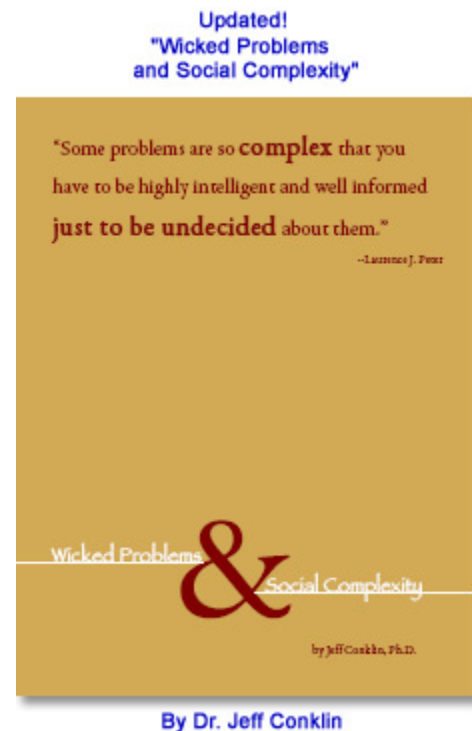
Most projects in organizations -- and virtually all technology-related projects these days -- are about wicked problems. Indeed, it is the *social complexity* of these problems, not their technical complexity, that overwhelms most current problem solving and project management approaches. (See graphic of wicked problem solving process below.)

Some specific aspects of problem wickedness include:

- **You don't understand the problem until you have developed a solution.** Indeed, there is no definitive statement of "The Problem." The problem is ill-structured, an evolving set of interlocking issues and constraints.
- **Wicked problems have no stopping rule.** Since there is no definitive "The Problem", there is also no definitive "The Solution." The problem solving process ends when you run out of resources.
- **Solutions to wicked problems are not right or wrong,** simply "better," "worse," "good enough," or "not good enough."
- **Every wicked problem is essentially unique and novel.** There are so many factors and conditions, all embedded in a dynamic social context, that no two wicked problems are alike, and the solutions to them will always be custom designed and fitted.
- **Every solution to a wicked problem is a "one-shot operation,"** every attempt has consequences. As Rittel says, "One cannot build a freeway to see how it works." This is the "Catch 22" about wicked problems: you can't learn about the problem without trying solutions, but every solution you try is expensive and has lasting unintended consequences which are likely to spawn new wicked problems.
- **Wicked problems have no given alternative solutions.** There may be no solutions, or there may be a host of potential solutions that are devised, and another host that are never even thought of.

(from Rittel and Webber, 1973 \*)

For a more detailed discussion of wicked problems, see [Wicked Problems and Social Complexity](#), CogNexus Institute's most downloaded white paper. Also, read the original and definitive paper on Wicked Problems by Horst Rittel and Melvin Webber, [Dilemmas in a General Theory of Planning](#).



Problem wickedness demands tools and methods which create *shared understanding* and *shared commitment*. Following Horst Rittel's analysis, we have developed "[Dialogue Mapping](#)", based on Rittel's Issue Based Information System (IBIS), which provides an elegant way of dealing with the fragmentation around a wicked problem.

Because the group or team's understanding of the wicked problem is evolving, productive movement toward a solution requires powerful mechanisms for getting everyone on the same page. There will be volumes facts, data, studies and reports about a wicked problem, but the shared commitment needed to create durable solution will not live in information or knowledge. Understanding a wicked problem is about collectively making sense of the situation and coming to shared understanding about *who* wants *what*.

Dialogue Mapping™ is such a method, because it is an approach which is rooted in maximizing communication and coherence among diverse stakeholders. Dialogue Mapping™ -- the process of crafting IBIS maps interactively with a group -- is not a process in the traditional sense: it is a structural augmentation of group communication. It provides a group with an enriched Dialogue environment which both de-emphasizes personal dynamics (e.g. right/wrong or win/lose dynamics) and creates a coherent shared space for crafting and negotiating shared understanding.

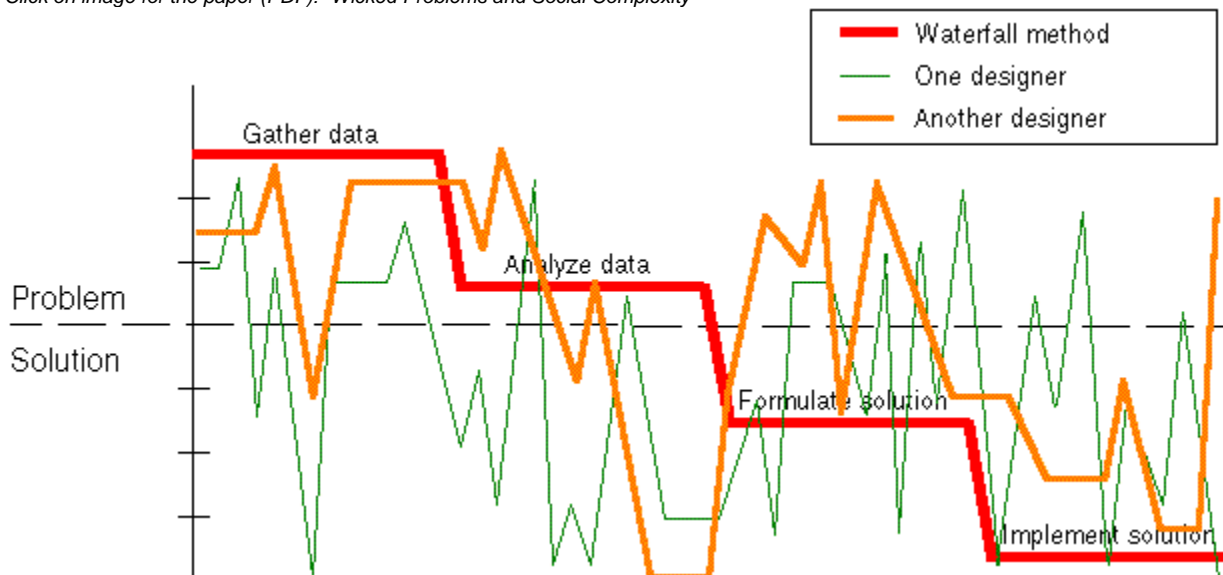
Read more about [Dialogue Mapping](#).

[Links to further articles about wicked problems.](#)

Also see some places where IBIS, Wicked Problems and Issue and Dialogue Mapping™ are mentioned in the world by visiting our [Virtual Sightings](#) page!

\* Rittel, Horst and Melvin Webber (1973) "Dilemmas in a General Theory of Planning," *Policy Sciences* 4, Elsevier Scientific Publishing, Amsterdam, pp. 155-159. Also Reprint No. 86, The Institute of Urban and Regional Development, University of California, Berkeley, California. [How to get Rittel's papers.](#)

Click on image for the paper (PDF): "[Wicked Problems and Social Complexity](#)"



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