

# The Wicked Problems

Dave Pollard

*“the intractable, complex-system challenges that require parallel iterations of both the 'problem' and the 'solution', until both become clearer at the same time (and sometimes once you find the 'solution' you realize your concept of the 'problem' was wrong)”*

Wicked problems have these ten characteristics:

1. Each attempt at creating a solution changes the understanding of the problem.
2. Since you cannot define the problem, it is difficult to tell when it is resolved.
3. There are no unambiguous criteria for deciding if the problem is resolved.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every implemented solution to a wicked problem has consequences, some of which are unforeseeable or adverse.
6. Wicked problems do not have a well-described set of potential solutions (it's a matter of individual judgement).
7. Since every wicked problem is essentially unique, there are no ‘classes’ of solutions that can be applied.
8. Every wicked problem can be considered a symptom of another problem (there is no constant or 'root' problem underlying others in the set).
9. The causes of a wicked problem can be perceived in numerous, changing ways.
10. There is an unreasonable expectation that the team working on the problem will find a satisfactory solution, preferably the first time.

The Cognexus Institute provides these examples of Wicked Problems meeting these criteria:

- Fighting terrorism
- Where to route a new highway
- A national healthcare system for the U.S.
- Sprawl and sustainable development
- What to do when oil resources run out
- The U.S. Social Security system
- World hunger
- Global warming
- Environmental planning
- Military base closure
- Business design challenges
- Complex software development (e.g. expertise finders)