

## Wicked problems revisited

### Description

The recent book by Evgeny Morozov seeks to deflate the enthusiasm of those who claim that Facebook, Twitter and other social networking tools are responsible for social and political transformations of the kind we see in Tunisia, Egypt and Bahrain, and to some extent in Libya. Morozov's book is entitled *The Net Delusion: How Not to Liberate the World*. I'm particularly interested in Morozov's argument reviving a line that emerged in the 1970s, that social problems are in fact "wicked problems."



Codes of disobedience & dysfunctionality: digital street art, Athens March 2011

To suggest that a particular technology (Twitter) is responsible for solving a social problem is to treat wicked problems as if they are "tame" according to Morozov. Factoring a quadratic equation is a tame problem, as is calculating the required dimensions of a concrete beam, traversing a maze, or solving the Rubik's cube puzzle. Tame problems are well defined, with a single goal and a set of well-defined rules: eg each side of Rubik's cube must display a unique colour.

But significant and challenging problems, such as designing a building or deciding on a transportation policy, are invariably "wicked." They are only loosely formulated. There is no "stopping rule." Wicked problems persist, and are subject to re-definition and resolution in different ways over time. Wicked problems are not objectively given but their formulation already depends on the viewpoint of those presenting them. There is no ultimate test of the validity of a solution to a wicked problem. The testing of solutions takes place in some practical context, the solutions are not easily undone, and the verdict on the solution is often contested.

This characterisation of the nature of real-world problems was put forward by Horst Rittel and Melvin Weber in their 1973 article "Dilemmas in a general theory of planning." The article was an antidote to Herbert Simon's influential book *The Sciences of the Artificial*. The first edition of Simon's book appeared about four years earlier and followed the path of the founder of systems theory Ludwig Bertalanffy and others in proposing a "science of design, a body of intellectually tough, analytic, partly formalizable, partly empirical, teachable doctrine about the design process" (p.58), with empirical science, mathematics, logic and algorithmic methods as the models.

Rittel and Webber joined a chorus of dissenters from such attempted rationalisation and argued persuasively, and in terms understandable to the systematisers, that the design process, and any other professional task, is only very poorly explained in terms of goal setting, constraints, rules and search through a well-defined problem space.

Professionals and political activists practice their art by framing the problems they choose to address. By the time problems of any social consequence (eg wicked problems such as deciding a public health policy or fomenting a more democratic society) are identified, conjectured, and defined they are already "solved" according to the frame of the professional, politician or activist. Problem framing is a contingent, fraught, and contested process for which there is no authoritative set of rules, criteria, or methods. So to define social and political problems in terms of the need for better communication amongst citizens (ie social networking) already presupposes a solution, thus short circuiting difficult debate. In so doing it attempts to tame a wicked problem. According to Morozov

Modern authoritarianism, by its very constitution, is a wicked, not a tame, problem. It cannot be "solved" or "engineered away" by a few lines of genius computer code or a stunning iPhone app (p.311).

Though much in the book is overstated, I think this reasoning resonates with that of the digital sceptic. Technologies do not change society, but it is the complex web of human practices, human organisation, relationships, customs, attitudes. These bring about transformation. Even the Twitterati would agree. In fact I would conjecture that the closer one gets to social media technologies the more pronounced their limitations.

## Bibliography

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## Category

1. Artificial Intelligence

## Tags

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