



DILEMMAS IN A GENERAL THEORY OF PLANNING

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HORST W. J. RITTEL

Professor of the Science of Design, University of California, Berkeley

MELVIN M. WEBBER

Professor of City Planning, University of California, Berkeley

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Writing in the 2019 World Economic Forum Global Risk Report, Klaus Schwab, WEF Executive Chairman wrote **'Our world currently stands on the brink of a mass political, technological & social shift which will transform our existence in ways we cannot yet possibly know'**.

The Federal Response to Hurricane Katrina – Lessons Learned Report in 2006 stated “Our current system for homeland security does not provide the necessary framework to manage the challenges posed by 21st-Century catastrophic threats.”

Patrice Lagadec, perhaps the leading conceptualist of the 'New Paradigm' movement, was writing over ten years ago about the 'unthinkable and inconceivable' threats that the world is facing, labelling them 'hypercomplex', creating 'rents' in our reality leading to 'liquefaction' of the foundational social and infrastructural supports and frameworks that we are unthinkingly dependent on.

Given the growing realisation that the nature of the threats we are facing are not just becoming 'bigger' and 'worse', but are fundamentally changing in their very nature, I thought it would be worthwhile to open this series by looking at one of the foundational papers that was responsible for creating a new paradigm of risk and crisis management thinking - Wicked Problems.

Horst Rittel and Melvin Webber were not originally thinking about crisis management when they came up with their theory of 'wicked problems', but were actually looking at issues of urban planning in California in the 1970's. This was a time of an economic boom, with the first post-W2 baby-boomers entering the labour and housing market (and having babies of their own!). There was a rapid expansion of all aspects of urban living in America – the cities were getting bigger, there was a massive increase in the growth of what could be considered the professional middle classes, which in turn was accompanied by an unprecedented growth in consumerism. In particular this was seen in the growth in urban and suburban housing which in turn resulted in the significant expansion of car ownership.

Rittel and Webber were at the time university professors, looking at issues around urban growth and planning. The brilliant insight that they came up with was that as the problems got bigger and more complex, they were going beyond what it was possible to map and model in terms of 'rational planning'. That is, there was no way that they could know enough about the problems they were facing, and in particular the consequences of any solution that they might offer, that that would allow them to suggest something that could be considered as a definitively 'correct' option.

I will write another blog on the technical aspects of their theory of wicked problems, and particularly the 'Ten Principles of Wicked Problems' that are as true today as they were fifty years ago. But for this first blog, I would like to look at the world view that Rittel and Webber brought to their exploration of non-rational wicked problems, and which are directly applicable to the issues facing strategic planners in the modern world today.

Rittel and Webber's 1973 analysis of what they described as 'non-rational' problems, and for which they coined the title of 'Wicked Problems' is undoubtedly one of the most influential academic papers on risk and crisis management ever written. It single-handedly created an approach to risk management that has since then been widely (and often incorrectly) attached to challenging planning and management issues in a wide range of fields.

Re-reading the paper recently as preparation for a chapter I am writing for a book on strategic risk and crisis management, I was impressed by how the language that they use to describe the intellectual, political and social changes that they were living through in the 1970's so clearly reflects the challenges we are facing today. That is both in the existential doubts they express about the political and social upheavals that the US was going through on the one hand as well as the seemingly unprecedented (and unprecedently disruptive) technological innovations on the other.

At the heart of their paper is the question as to whether what had been previously been accepted as the unquestioned foundation of planning and management, namely the ability to model the problem, develop a range of potential solutions and then choose which of those could be considered as the optimal option, could be considered appropriate, or even relevant, in the new class of problems that was emerging from developments in technology and increased urbanisation. The revolutionary developments in technical capabilities were accompanied by a loss of faith in public leaders that they described using language that could be taken from the editorial section of any newspaper anywhere in the world today.

'Few of the modern professionals seem to be immune from the popular attack— whether they be social workers, educators, housers, public health officials, policemen, city planners, highway engineers or physicians. Our restive clients have been telling us that they don't like the educational programs that schoolmen have been offering, the redevelopment projects urban renewal agencies have been proposing, the law enforcement styles of the police, the administrative behavior of the welfare agencies, the locations of the highways, and so on. In the courts, the streets, and the political campaigns, we've been hearing ever-louder public protests against the professions' diagnoses of the clients' problems, against professionally designed governmental programs, against professionally certified standards for the public services'.

Rittel and Webber described the professional's role as that of the technocrat, responsible for solving problems 'that appeared to be definable, understandable and consensual'. In terms of solving problems of the mid-section of the 20th century, *'[Their]record has been quite spectacular, of course; the contemporary city and contemporary urban society stand as clean evidences of professional prowess. The streets have been paved, and roads now connect all places; houses shelter virtually everyone; the dread diseases are virtually gone; clean water is piped into nearly every building; sanitary sewers carry wastes from them; schools and hospitals serve virtually every district; and so on. The accomplishments of the past century in these respects have been truly phenomenal'.*

However, there was also the recognition that these problems were relatively simple in their conception, and conducive to engineering / management solutions that could be developed, imposed and managed with a general acceptance that they were good for society. The paper goes on to highlight the growing concerns as to whether those same processes and principles would be able to meaningfully engage with the emerging social problems and issues that were becoming both increasingly critical and increasingly divisive as changing social arrangements and expectations coincided with fast-developing sophisticated technical capabilities.

'The professionalized cognitive and occupational styles that were refined in the first half of this century, based in Newtonian mechanistic physics, are not readily adapted to contemporary conceptions of interacting open systems and to contemporary concerns with equity'.

It seems that issues associated with 'contemporary conceptions of interacting open systems and to contemporary concerns with equity' are not confined to Facebook, Google and billion-user data sources.

One of the defining characteristics of this changing concept of 'management for the public good' was the transition of what might seem to be a simplistic question, from the technical enquiry 'What do systems do?' to the social / political question 'What should these systems do?' (which Rittel and Webber defined as 'the most difficult question of all').

The social background to all of this would also be familiar to contemporary commentators, with an anti-authoritarian public movement that saw challenges to the very fabric of American society in terms of race and class upheavals, anti-government demonstrations over the Vietnam war, student radicalisation and a President (Nixon) who saw a significant part of the American population as an enemy to be feared and controlled (and lied to!). At the same time, there was a growing consumerist class that was benefitting from the post-Second World War economic boom combined with the emergence of a nascent ecological / conversationist movement that saw the mixture of exponentially growing global population, rapid rise in urbanisation and the increase in manufacturing to support the growth of a global consumerist middle-class as structurally unsustainable, and which would lead to many of the global problems that we are facing today.

The belief in history as a generally progressive process was being challenged by internal (and perhaps unavoidable) dynamic tension between two forces. On the one hand there was the belief in the 'makeability' of history through effective planning and management, tied in with the inherent innovativeness of human intellect and creativity, and on the other hand there was the desire for a more 'feeling approach', based on passionate engagement and dramatic action, 'even of a revival of mysticism, aiming at overcoming The System which is seen as the evil source of misery and suffering'.

The words written by Rittel and Webber almost fifty years ago, and in the days when the computer itself was in its infancy, and the possibilities inherent in a globally connected world were unthought of, are so prescient that they are worth repeating in their entirety.

'The Enlightenment may be coming to full maturity in the late 20th century, or it may be on its deathbed. Many Americans seem to believe both that we can perfect future history—that we can deliberately shape future outcomes to accord with our wishes—and that there will be no future history. Some have arrived at deep pessimism and some at resignation. To them, planning for large social systems has proved to be impossible without loss of liberty and equity. Hence, for them the ultimate goal of planning should be anarchy, because it should aim at the elimination of government over others. Still another group has arrived at the conclusion that liberty and equity are luxuries which cannot be afforded by a modern society, and that they should be substituted by "cybernetically feasible" values'.

The critical issue that lay at the heart of this problem, according to Rittel and Webber, was the inability to accurately articulate what exactly the problem is that they are trying to find a solution for. Or rather, that in articulating a problem in one way, we are by its very nature excluding other aspects and issues from consideration. Given that this articulation / definition would always be arbitrary, and there is no way of reaching a decisive conclusion as to what the limits or boundaries of that definition could / should be, it would become clear that any solution would also be arbitrary, partial and incomplete.

This becomes clearer the more complex the systems that we are dealing with become. Once they reach the societal level, then the conceptualisation of the problem we are trying to deal with reaches a stage where it is functionally impossible to identify all the issues involved, or model the consequences and outcomes of all of the myriad possible interactions, both internal and external, that could cascade from any 'solution' that we tried to impose. The conclusion that Rittel and Webber drew from these musings was not that what was required was a better understanding of planning and management, but rather that the paradigm being used was false. From this perspective, the category error lies in the belief that the intrinsically Newtonian approach to engineering - the development of a single 'correct' solution - could be transposed to the arena of social science, where such lineal and binary (true / false, right / wrong) frameworks were simply not applicable.

Once this is accepted, then the underlying issue is not one of language, but of metaphor. To describe this new class of problem, Rittel and Webber coined the phrase 'Wicked Problems'. This does not mean that they are bad or evil but rather than they are ill-defined, they are 'elusive'. Engineering problems are open to 'solutions', but wicked problems don't have solutions, only resolutions. That is, there is no stopping point, no final stage at which the planner can step back and say 'It is done'. These are not technical / engineering issues, but social / political ones.

Rittel and Webber listed ten properties associated with wicked problems, which have been widely quoted in a multitude of contexts. I will cover those more fully in a future blog, but would like to identify two seemingly contradictory issues that they highlight.

The first is that any 'solution' that is offered is not a final solution, but only the creation of a new generation of problems. Building a bridge may be a solution to one problem – but it is the harbinger of others. A policy on drug management, education, use of resources in the national health service or an approach to immigration are all issues that are often approached as though they can be defined in isolation, and that there is a 'right' solution, which if only it were managed more effectively then the desired outcomes would be realised. From a wicked problem perspective, this is an approach that is doomed to failure, not because of weakness in the design or management of the solutions, but because of a failure to understand the basic nature of the problem.

The second point is their final, tenth principle of wicked problems. It is simply 'The planner has no right to be wrong'.

A Newtonian, engineering approach to problem management on a social level misunderstands the nature of scientific enquiry as much as it does social problems. Scientific enquiry is built upon the hypothesis – trial – solution process. Within this, it is an inherent part of the process to fail, amend the hypothesis, fail again better and then through a series of trial and errors ('refutation / corroboration') to approach to a final understanding of what the 'correct' solution might be.

As Rittel and Webber put it *'In the world of planning and wicked problems no such immunity is tolerated. Here the aim is not to find the truth, but to improve some characteristics of the world where people live. Planners are liable for the consequences of the actions they generate; the effects can matter a great deal to those people that are touched by those actions'*.

At a time when the problems that the world is facing are becoming increasingly challenging, disruptive and destructive, it seems that one of the fundamental demands we should make of those responsible for developing and managing potential responses is that they have a true understanding of the nature of those problems, and of the range of holistic and multi-tiered approaches that they will need to develop to engage with them in a meaningful way. A rereading of this classic from 1973 could be a good start.

A future blog in this series will cover the technical aspects of the ten principles of wicked problems.



Dr David Rubens D.SyRM, C.SyP, F.ISRM is Executive Director of the ISRM.

As CEO of Deltar Training Solutions, he has run executive risk and crisis management training programmes in Europe, Latin America, Middle East, SE Asia and East and West Africa.