@article{Rittel1973,

author = {Horst W. Rittel and Melvin M. Webber},

issue = {1973},

journal = {Policy Sciences},

pages = {161-169},

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volume = {4},

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}

Rittel and Webber explain that science is designed to solve tame problems where social policy needs a scientific basis for its wicked problems. The scheme to work out solutions for societal problems is never-ending. There is no end to solving a social problem because there is no end to defining and understanding it. Researchers stop their search due to their limitations (time, money, bias). The solutions are not true or false but are valued within philosophical ethics and are assessed differently by differing groups’ interests and ideological preferences. Societal problems can be symptoms of another problem and can be explained in numerous ways. Wicked problems’ solutions have unbounded, impossible-to-track waves of consequences that may include repercussions that outweigh the advantages. Solutions cannot be readily undone. The authors explain how a highway is not easily moved once built. Making edits to solutions with the intent to correct undesired consequences poses additional waves of consequences. Solutions are certainly not generalizable to families of problems. Science is forgiving of inaccurate conclusions. Societal solutions do not have such luxuries.

This article is relevant to my thesis because it discusses how the grand challenges are incredibly complicated and high stakes. It points out that solutions need to be found from many different angles all at once.

What is a wicked problem?

A "wicked problem," as described by Rittel and Webber (1973), refers to complex social challenges characterized by their intricacy and resistance to straightforward solutions. These problems, often encountered by professionals in social services, are marked by their interconnectedness and the repercussions that ripple through various systems. Each solution must be uniquely tailored, making generalization difficult. Notably, social processes within these challenges are likened to networks, where each action creates a web of effects, underscoring the importance of considering the broad interconnected systems. This perspective is particularly relevant to social network analysis, as it emphasizes the intricate links and interactions within social systems.