

MISQ Archivist

Theorizing the Multiplicity of Digital Phenomena: The Ecology of Configurations, Causal Recipes, and Guidelines for Applying QCA

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Abstract

Faced with the challenge of multifaceted digital phenomena, researchers in Information Systems and related fields have increasingly adopted qualitative comparative analysis (QCA). However, in the absence of explicit guidelines for how to use QCA for theory development, the popularity and proliferation of QCA possibly amplifies the risk of using QCA in an atheoretical manner, hindering theoretical advancement. In this paper, we offer a conceptual framework and prescriptive guidelines for applying QCA to develop causal recipes that account for complex digital phenomena marked by theoretical and configurational multiplicity. Causal recipes are formal statements explaining how causally relevant elements combine into configurations associated with outcomes of interest. We describe these causal recipes in terms of which causes matter (i.e., factorial logic) and how these causes combine into configurations (i.e., combinatorial logic) to produce target outcomes, and propose an ecology of configurations that elucidates the explanatory power of multiple configurations as well as their explanatory overlap. Further, we offer two illustrative empirical examples to demonstrate the usefulness of our framework and step-by-step guidelines for applying QCA to deductive theory testing as well as inductive theory development on phenomena marked by multiplicity.

Keywords: Theoretical multiplicity, configurational multiplicity, causal recipes, the ecology of configurations, qualitative comparative analysis (QCA)