Using ontological network to broker faceted understandings of value

<Network, Interaction and relationships>

Value, its creation, as well as its perception and determination by a beneficiary, are the central elements and the core purpose of human economic exchange. Though central to the service science lexicon, our understanding of value, its exchange, measurement, and underlying definition remains surprisingly ambiguous. The emergence of service-dominant (SD) logic advanced the perception of value in service research by introducing concepts like value-in-use or value-in-exchange. However, despite these advances, we cannot assume that the value lexicon of SD logic represent the managerial / practitioners' understanding of value that may be applicable beyond academic realms. The **purpose** of this research is to broker various understadings of value.

Our **approach** exlpored the concept of value from a linguistic/ontological perspective. Specifically, we incoporated "middle range" folksonomy of value (derived collectively from practice with less formal relationships used by firms / practitioners) to taxonomy of value (derived by researchers as formal representaion), in order to addresed the challenges posed by abstractive taxonomy's highly conceptualised concepts and relationships, which may pose difficulties in ontological analytics and, practically make it more difficult to reuse and share relevant knowledge between different parties. The incorporation of value-in-exchange centric folksonomy assisted producing an brokerage network among various perspectives in understading value, a more holistic framework to explaining how different parties interprete value creation, and reasoning machenisms to extract actionable knowledge for diffrent parties.

Our **methodology** was automated to extract concepts that are semantically related to value from the web, in order to provide the, to the best of our knowledge, very first empirically derived cross-domain ontology of value. The resulting ontology is a multifaceted enriched network structture which provides wider coverage of concepts related to value with weighted directional relationships that facilitate further in-depth analysis. Specifically, we investigated the similarity and differences of the understanding of "value" from researchers and practitioners in industry.

Identifying the similarities and discrepancies between different understandings of value enables us to provide a number of significant contributions: we are the first to apply a computational ontology engineering approach to service research. Second, this approach enables us to describe how the ontological roots, and therefore managerial perceptions of value, differ from our current academic understanding of the concept. Highlighting these discrepancies thirdly, enabled us to delineate future research opportunities. Finally, both academic and practitioner perspectives can be bridged in the same ontology, and this provides clear "routes" for academic-industry knowledge exchange in the area.

Key words: Value constellation; ontology engineering; taxonomy; folksonomy; network theory

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