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Title:

Finding a common language: Glossaries and ontologies in “TRUE-COST” an interdisciplinary multi-institutional true cost accounting project for Food in Switzerland.

Abstract:

True Cost Accounting (TCA) has emerged as a vital framework for comprehensively evaluating the economic, social, and environmental impacts of food systems. However, the integration of diverse stakeholders—ranging from economists, ecologists, agronomists, policymakers, social scientists and health economists—into a unified TCA framework poses significant challenges, particularly due to the varied vocabulary usage across disciplines. While stakeholders often use the same terms, such as "value," "cost," "sustainability," and "impact," these terms carry subtly different meanings depending on the disciplinary context. This misalignment in vocabulary and conceptual understanding can lead to siloed thought, fragmented decision-making, and inconsistencies in the application of TCA principles.

To address these challenges, we propose the development of a cross-disciplinary ontology for True Cost Accounting that aligns the diverse terminologies and conceptual frameworks used by different stakeholders for our purpose. The ontology serves as a shared language model that standardizes definitions, clarifies relationships between concepts, and identifies the contextual nuances of key terms. This harmonization facilitates clearer communication and more effective collaboration among stakeholders, ensuring that all parties have a mutual understanding of TCA objectives and methodologies.

In a first step keywords of interest from all the Stakeholders of TRUE-COST are gathered and agreed upon. These words of interest form the common glossary of TRUE -COST and delineate the broad domain scope of the ontology.

For the transformation of the glossary into an ontology we aim to integrate the concrete variables of interest used in the academic research projects of the separate work packages into one TRUE-COST ontology. With the specific domain knowledge like our Swiss food system map, our observed Swiss food stakeholder value chains and our concrete accounting method integrated into the TRUE-COST ontology we believe we can share an accurate description of TRUE-COST in one interoperable format.

We expect this ontology-driven approach to improve data interoperability, facilitate the integration of collaborations, reduce interdisciplinary barriers and lead to more comprehensive and transparent TCA assessments during the time course of TRUE-COST.