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Title: Elements of a methodology to assess the alignment of core-values in collaborative networks

Abstract: Collaborative networks are typically formed by heterogeneous and autonomous entities, and thus it is natural that each member has its own set of core-values. Since these values somehow drive the behaviour of the involved entities, the ability to quickly identify partners with compatible or common core-values represents an important element for the success of collaborative networks. However, tools to assess or measure the level of alignment of core-values are lacking. Since the concept of 'alignment' in this context is still ill-defined and shows a multifaceted nature, three perspectives are discussed. The first one uses a causal maps approach in order to capture, structure, and represent the influence relationships among core-values. This representation provides the basis to measure the alignment in terms of the structural similarity and influence among value systems. The second perspective considers the compatibility and incompatibility among core-values in order to define the alignment level. Under this perspective we propose a fuzzy inference system to estimate the alignment level, since this approach allows dealing with variables that are vaguely defined, and whose inter-relationships are difficult to define. Another advantage provided by this method is the possibility to incorporate expert human judgment in the definition of the alignment level. The last perspective uses a belief Bayesian network method, and was selected in order to assess the alignment level based on members' past behaviour. An example of application is presented where the details of each method are discussed.

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