web tables are then represented in a classical and generic way—a table is a set of lines, each line being a set of cells; in the third task, the web tables are semantically annotated according to the domain ontology. This annotation consists in identifying what semantic relations of the domain ontology can be recognized in each row of the web table. This process generates RDF descriptions.

6. Conclusion

We proposed a generic method to evaluate the reliability of data automatically retrieved from the web or from electronic documents. Even if the method is generic, we were more specifically interested in scientific experimental data. The method evaluates data reliability from a set of common sense (and general) criteria. It relies on the use of basic probabilistic assignments and of induced belief functions, since they offer a good compromise between flexibility and computational tractability. To handle conflicting information while keeping a maximal amount of it, the information merging follows a maximal coherent subset approach.

Finally, reliability evaluations and ordering of data tables are achieved by using lower/upper expectations, allowing us to reflect uncertainty in the evaluation. The results displayed to end users are an ordered list of tables, from the most to the least reliable ones, together with an interval-valued evaluation.

7. Future Scope

As future works, we see two main possible evolutions:

7.1. Complementing the current method with useful additional features: the possibility to cope with multiple experts, with criteria of non-equal importance and with uncertainly known criteria.

7.2. Combining the current approach with other notions or sources of information: relevance, in particular, appears to be equally important to characterize experimental data. Also, we may consider adding user feedback as an additional (and parallel) source of information about reliability or relevance, as it is done in web applications.

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