

answers when searching within the argument base.

Inference engines for computing the acceptability of arguments have been developed under the ASPIC project. To prove the AIF concepts in this prototype, each node has a degree of support (dos 2 [0, 1]) attribute. Also, the computation of the dos of a conclusion based on the dos of its premises is based on the weakest link principle, according to which the dos of the consequent equals the minimum degree of support of its antecedents. In the large scale, open context of WWAW, these attributes

might not suffice due to: i) standards of evaluating arguments are domain dependent; ii) the applicable principle of inference for computing the reliance on an argument may change during the course of argumentation. iii) the applicable principle of inference depends on the current context; iv) different principles require different attributes attached to the premises instead of the degree of support, such as fuzzy numbers or rough intervals.

Table 1. Mass Argumentation Tools

FEATURE	ARGNET	DEBATEPEDIA	ARGUMENTUM	DEBATEGRAPH
Argument model	ASs and AIF ontology	PRO/CON structure	Support/Oppose idea	Natural language debate
Semantic annotation	Yes	No	No	No
Graphical representation	Wiki pages and graph-based representation of he chains	Wiki pages with a PRO/CON structure	List of text articles	Graphic environment using concept maps
Degree of support	User defined	None	None	Element rating
Reasoning support	Validity, explanation and contradiction degree	None	None	None
Query capabilities	Use of SMW query language	Relying only on the MediaWiki mechanism	Implementation specific (by text, position, date)	Simple text based
User contribution	Only created arguments list (MediaWiki)	Simple user pages	Evaluation of user's contribution and comparison	Authors of elements displayed
Connectivity	RDF export	Simple MediaWiki export	None	RSS feeds

Therefore, we designed a flexible framework in which the users can choose from a set of possible argument evaluation strategies, aiming to map the standard of proof with the current domain of the dispute.

In order to provide a higher view of our system's characteristics we compare it with three state of the art large scale mass argumentation systems: Debatepedia, Argumentum and Debategraph. The following features were considered (see table I): i) the argument model; ii) whether or not the system uses semantic annotation; iii) the graphical representation; iv) the possibility of assigning a degree of support to an element; v) the reasoning support provided by the software, this extending the usability of the system from an argumentation support system to an argumentation-capable system; vi) the query capabilities that help users to efficiently locate information; vii) the role and value of users, which can constitute into a credibility factor itself; viii) and the connectivity, an essential factor in the context of mass argumentation.

8 CONCLUSION

The proposed ARGNET framework allows mass-collaborative editing of structured arguments in the style of semantic wikipedia. In this study we have shown that using a prolific environment such as SMW as an argumentation platform could have numerous benefits and present a stable, yet flexible foundation for further development. The AIF

ontology provides the opportunity of integrating software agents [16] within argumentative web, where the agents use the argument reasoning capabilities of our framework and structured facts to build smart argument spaces [20] in Semantic Wikipedia.

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