AIFdb: Infrastructure for the Argument Web

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Abstract. . . .

Keywords.

1. Introduction

The Argument Web [3] is a vision for a large-scale Web of inter-connected arguments posted by individuals on the World Wide Web in a structured manner. As such it is necessary to provide a service which not only allows for the storage and retrieval of this structured argument data, but is compatible with the widest possible range of currently existing argumentation software and provides a stable and flexible platform around which future software can be developed.

AIFdb is a database implementation of AIF, allowing for the storage and retrieval of AIF compliant argument structures. AIFdb offers a wide range of web service interfaces for interacting with stored argument data, as well as offering its own search and argument visualisation features.

2. Interacting with AIFdb

At the lowest level, AIFdb's web services allow for the insertion and querying of the basic components of an AIF argument such as nodes, edges and schemes. These components are represented by tables in the database as can be seen in Figure 1.

Building upon these lower level interactions, AIFdb also offers a 'middle layer' of web services which group these simple queries to allow more complex interactions to be easily performed. For example it is possible, with a single query, to determine all of the statements made by a particular person in support of a given I-Node.

At the highest level of interaction, AIFdb supports modules handling the import and export of numerous formats such as SVG, DOT, RDF-XML and the formats of the Carneades [1], Rationale [6] and Araucaria [4] tools.

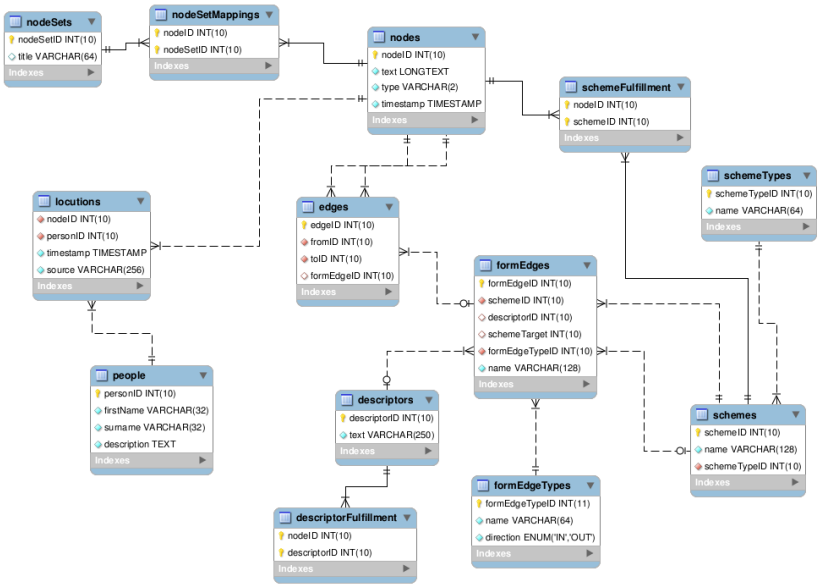

Figure 1. AIFdb Diagram

3. Conclusion

By providing a database solution for the Argument Web, AIFdb makes it possible to, for example, manipulate some of the 2,000 or so argument resources in the argument web in Carneades, and visualize the result in Rationale; it is possible to 'argublog' [5] in response to arguments analysed in Araucaria, and compute the acceptability of the result using ASPIC+ [2]. The barriers between domains of argumentation (legal and medical, for example) are being broken down as effectively as the barrier between systems and theories of argumentation, and as these barriers come down, a foundation is laid for realising the vision of an open, integrated Argument Web.

References

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