Sharing Knowledge between Independent Grid Communities

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Abstract: In recent years, grid-based approaches for processing scientific data became popular in various fields of research. A multitude of communities has emerged that all benefit from the processing and storage power the grid offers to them. So far there has not yet been much collaboration between these independent communities. But applying semantic technologies to create knowledge bases, sharing this knowledge, and providing access to data maintained by a community, allows to exploit a synergy effect that all communities can benefit from. In this paper, we propose a framework that applies information extraction to generate abstract knowledge from source documents to be shared among participating communities. The framework also enables users to search for documents based on keywords or metadata as well as to search for extracted knowledge. This search is not restricted to the community the user is registered at but covers all registered communities and the data they are willing to share with others.