

Toward the Interoperability of Language Resources

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Whose interoperability?

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While there is consensus that achieving a high degree of interoperability for linguistic resources will be extraordinarily beneficial to documentary and descriptive linguists, the notion of interoperability is a complex one, and it is not yet clear what the specific responsibilities of linguists should be with respect to developing interoperability standards. By way of example, an informal classification of some important types of interoperability might run as follows.

- **Code interoperability:** Interoperability of tool design due to sharing of significant parts of their codebase (for example, by using shared libraries).
- **Interface interoperability:** Interoperability of tools achieved by sharing common design in their application program interfaces or user interfaces.
- **Data model interoperability:** Interoperability of resources due to sharing a common data model (for example, by adopting a graph-based model like that used in the Annotation Graphs Toolkit).
- **Format interoperability:** Interoperability of resources due to sharing a common format (for example, XML).
- **Terminological interoperability:** Interoperability of significant parts of the content of a resource achieved by either using common terminology or by mapping terminology to a common ontology.

This list is by no means exhaustive. Nevertheless, it highlights just how many distinct dimensions there are to the commonly invoked desideratum that resources should be “interoperable”.

An important consequence of the complexity of interoperability which has yet to be systematically discussed by linguists is what aspects of it they are primarily responsible for. For example, in the case of format interoperability, the common recommendation to use XML has little to do directly with the needs of linguists but is, rather, drawn from the more general realm of data markup. Many issues revolving around terminological interoperability for linguistic resources, however, are quite clearly a problem for linguists, since only we are experts in our terminology.



Therefore, as more and more linguists have begun to understand the benefits of interoperability, it seems appropriate for us to elucidate what dimensions of interoperability are important to us and, having done so, determine which are primarily our responsibility and which will require us to look to other disciplines for assistance. Then, we will be able to most effectively use our limited resources to solve those interoperability problems that others are unlikely to solve for us.

