SIMON: An Intelligent Agent For Heterogeneous Data Mapping

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Abstract

The process of populating large scientific data systems is frequently hindered by the additional requirements placed on the data contributor. Although many field scientists recognize the value of contributing their data to a permanent data store, they generally receive funding for collecting and analyzing data specific to a research project. The additional requirements placed on the data organization effort in order to conform to a large data system can be time-consuming at best and conceptually overwhelming at worst. In order to encourage scientists collecting environmental contamination data sets to contribute their data to a specific large spatially-enabled data system, the SynCon System, an intelligent agent called SIMON (Scientific Intelligent Mapping of Notation) was created to aid them in the data mapping, prescreening, and formatting processes. Although SIMON was developed specifically for the SynCon System, the underlying methodology could be applicable to any organization effort that maps heterogeneous data sets to a homogeneous data system.

Keywords

Intelligent Systems, Intelligent Agent, Geographical Information System (GIS), Knowledge-based Systems, SIMON

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