

## **A High Performance Content Based Recommender System Using Hypernym Expansion**

### **Disclosure Number**

201403383

### **Technology Summary**

The invention relates to big data and more specifically to improvements to document recommendation programs. Linguistic methods and term frequency methods are combined to improve overall performance and recommendation. The idea is to add more general terms to only the seed document set, so that related, higher level documents can be recommended as well as technical documents. We use this generalizing concept to help address the over-specialization problem seen by many recommender systems. Overspecialization occurs when a very technical document recommends other very technical documents, and not a high level document on the same topic. This invention broadens the language used for comparison to recommend more "interesting" documents.

### **Inventor**

POTOK, THOMAS E  
Computational Sciences & Engineering Div

### **Licensing Contact**

SIMS, DAVID L  
UT-Battelle, LLC  
Oak Ridge National Laboratory  
Rm 124C, Bldg 4500N6196  
1 Bethel Valley Road  
Oak Ridge, TN 37831

Office Phone: (865) 241-3808

E-Mail: [SIMSDL@ORNL.GOV](mailto:SIMSDL@ORNL.GOV)