

**CCSU**  
**DEPARTMENT OF MATHEMATICAL SCIENCES**  
**DATA MINING**  
**THESIS PRESENTATION**

**Friday, March 6**  
**2:00 – 3:00 pm in MS 101**

**Latent Semantic Analysis and  
Classification Modeling in Applications  
for Social Movement Theory**

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**Abstract**

This talk presents the application of statistical methods in text analytics and classification modeling to extend research involving Social Movement Theory (SMT). SMT is an area of study in Social Science that provides an analytical framework for understanding the factors involved in organized social action. A social movement develops in response to an injustice or issue about which people rally in an effort to solve the problem. In recent years, the threat of terrorism has accelerated research in SMT. Much of this research has focused on understanding the framing process, whereby a Social Movement Organization (SMO) issues communications intended to influence perceptions and enlist help from the members of a community or general population. The Internet has become a primary medium for SMOs to distribute electronic text to describe an issue, place blame, identify victims, propose solutions, and ask readers to take action on an issue. Texts such as these are framing documents.

Latent Semantic Analysis techniques combined with classification modeling algorithms are shown to result in models that discover small numbers of framing documents scattered among thousands of text documents. Global warming was selected as the social movement upon which to base this study. Global warming framing documents were collected from Internet sites, and were combined with other documents that address global warming, but are not framing in nature. This corpus served to train and test statistical models that not only detected framing documents, but further classified these by framing task with accuracies as high as 98%.

***For further information:***  
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