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Real Time News Analysis for Improved Social Relationship Discovery

Topics: Cognitive and Social Issues; Networks and Networking, Organizational
Issues

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ABSTRACT: Intelligence analysts have the arduous responsibility of processing large amounts of data to determine trends and relationships. Analysts must be able to gather traditional information (signal, human, and measurement and signature intelligence) and nontraditional data (financial and social context) to form actionable intelligence. One source of data is news reports. The U.S. Army Research Laboratory (ARL) currently has two projects that will jointly meet part of this requirement. The first is the Real Time News Analysis (RTNA) project. RTNA is being developed to harvest real time streaming data from world web-based news sources and pre-process it by filtering, classifying, tagging, and fusing. This data could then be fed to ARL's Social Network Analysis (SNA) project. This project is developing a testbed of currently available SNA software and working on enhanced algorithms and visualization techniques to improve relationship discovery. ARL is not trying to develop SNA software but to utilize software currently available to better suit the needs of the Intelligence Community. This paper discusses the reasoning behind the two projects, their interrelationship, and possible future expansions. This is challenging research but the potential payoff would be providing non-traditional information quickly to analysts.

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1. Introduction

2. Background

3. Real Time News Analysis (RTNA)
   a. System Design
   b. Current Status

4. Review of Current Social Network Analysis (SNA) Software
   a. Software Evaluation
   b. Current Status

5. Army Research Laboratory's RTNA/SNA testbed

6. Future Experimentation

7. Conclusion