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Call for Papers

Special Issue of Decision Support Systems (DSS) Intelligence and Security Informatics: An Information System Perspective

Guest Editor: Hsinchun Chen of The University of Arizona.

Deadline for submitting manuscript for review August 31, 2003

This Special Issue of Decision Support Systems (DSS) will focus on the topic of "Intelligence and Security Informatics: An Information System Perspective."

After the tragic events of September 11, 2001, academics have been called on for possible contributions to research relating to national (and possibly international) security. As one of the original founding mandates of the National Science Foundation, mid-to-long term national security research is critically needed. Similar to medical and biological research that faces significant information overload and yet also tremendous opportunities for new innovation, law enforcement, criminal analysis, and intelligence communities are facing the same challenge. We believe, similar to "medical informatics" and "bioinformatics," there is a pressing need to develop the science of "intelligence and security informatics" - the study of the use and development of advanced information technologies, systems, algorithms and databases for national security related applications, through an integrated technological, organizational, and policy based approach. Many existing computer and information science techniques need to be re-examined and adapted for national security applications. New insights from this unique domain could result in significant breakthroughs in new data mining, visualization, knowledge management, and information security techniques and systems. For example, social network analysis technologies and methodologies could be adopted to uncover and understand terrorist networks to assist the intelligence community in detecting future attacks. Visual data mining techniques such as association rules and multi-dimensional information visualization could be used to identify criminal relationships. Record linkage and string comparator algorithms could be useful for criminal identity deception detection.

This special issue encourages research submissions of practical and novel information technologies, techniques, methods, practices, and systems (i.e., an information system perspective) that can contribute to knowledge in this important emerging field. Submissions on all research areas relating to intelligence and security informatics are welcome. Research needs to demonstrate relevance to both informatics and national security.

Topics include but are not limited to:

- Information interoperability and sharing
- Knowledge discovery and knowledge management
- Criminal data mining, social network analysis, and event detection
- Multimedia intelligence and security information analysis

- Web-based intelligence monitoring and analysis
- Deception detection systems
- Intrusion detection systems and information awareness
- Cybercrime detection and analysis
- Agents and collaborative systems for intelligence sharing
- Crime and intelligence visualization
- Bio-terrorism tracking, alerting, and analysis
- Major (natural and man-made) disaster prevention, detection, and management

For submission guidelines, please refer to the Instructions for Authors at http://www.elsevier.com/locate/dss. Inquiries can be made to the guest editor at hchen@bpa.arizona.edu. Manuscript submissions (four copies of full articles) should be addressed to:

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The deadline for accepting manuscripts for consideration for publication in this special issue is August 31, 2003.