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Intelligence and Security Informatics

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Preface

Since 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 in the areas of information technologies, organizational studies, and security-related public policy is critically needed.

In a way similar to how medical and biological research has faced 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," that 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.*

We believe active "intelligence and security informatics" research will help improve knowledge discovery and dissemination and enhance information sharing and collaboration across law enforcement communities and among academics, local, state, and federal agencies, and industry. Many existing computer and information science techniques need to be reexamined 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.

This first NSF/NIJ Symposium on Intelligence and Security Informatics (ISI 2003) aims to provide an intellectual forum for discussions among previously disparate communities: academic researchers (in information technologies, computer science, public policy, and social studies), local, state, and federal law enforcement and intelligence experts, and information technology industry consultants and practitioners. Several federal research programs are also seeking new research ideas and projects that can contribute to national security.

Jointly hosted by the University of Arizona and the Tucson Police Department, the NSF/NIJ ISI Symposium program committee was composed of 44 internationally renowned researchers and practitioners in intelligence and security informatics research. The 2-day program also included 5 keynote speakers, 14 invited speakers, 34 regular papers, and 6 posters. In addition to the main sponsorship from the National Science Foundation and the National Institute of Justice, the meeting was also cosponsored by several units within the University of Arizona, including the Eller College of Business and Public Administration, the Management Information Systems Department, the Internet Technology, Commerce, and Design Institute, the NSF COPLINK Center of Excellence, the Mark and Susan Hoffman E-Commerce Lab, the Center for the Management of

Information, and the Artificial Intelligence Lab, and several other organizations including the Air Force Office of Scientific Research, SAP, and CISCO.

We wish to express our gratitude to all members of the conference Program Committee and the Organizing Committee. Our special thanks go to Mohan Tanniru and Joe Hindman (Publicity Committee Co-chairs), Kurt Fenstermacher, Mark Patton, and Bill Neumann (Sponsorship Committee Co-chairs), Homa Atabakhsh and David Gonzalez (Local Arrangements Co-chairs), Ann Lally and Leon Zhao (Publication Co-chairs), and Kathy Kennedy (Conference Management). Our sincere gratitude goes to all of the sponsors. Last, but not least, we thank Gary Strong, Art Becker, Larry Brandt, Valerie Gregg, and Mike O'Shea for their strong and continuous support of this meeting and other related intelligence and security informatics research.

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                          Chris Demchak, Jenny Schroeder, Therani Madhusudan

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Gary Strong   National Science Foundation
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Mike O'Shea   National Institute of Justice
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Invited Speakers

Paul Kantor   Rutgers University
Lee Strickland   University of Maryland
Donald Brown   University of Virginia
Robert Chang   Criminal Investigation Bureau, Taiwan Police
Pamela Scanlon   Automated Regional Justice Information Systems
Kelcy Allwein   Defense Intelligence Agency
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Bruce Baicar   South Carolina Research Authority and
                        National Institute of Justice
Matt Begert   National Law Enforcement & Corrections
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John Cunningham   Montgomery County Police Department
Victor Goldsmith   City University of New York

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