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Information Sciences Department Newsletter

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Sponsor: Dan Boger
Editor: Mark Nissen

Publications

Books

Articles in Refereed Journals

Chapters in Books

Nissen, M.E., "Visualizing Knowledge Networks and Flows to Enhance Organizational Metacognition in Virtual Organizations," in: C. Camisón, D. Palacios, F. Garrigós and C. Devece (Eds.), *Connectivity and Knowledge Management in Virtual Organizations: Networking and Developing Interactive Communications* Hershey, PA: IGI Global (2008).

Osmundson, J. S., Chapter 5 – "Software Project Management," in *Management of Defense Acquisition Projects,* AIAA Press, Keith Snider and Rene Rendon, editors, 2008, pp 63-83.

Articles in Conference Proceedings

Hutchins, S. G., and **Kendall,** A. (2008). Patterns of Team Collaboration Employed to Solve Complex Problems. In Proceedings of the 52nd Annual Meeting of the Human Factors and Ergonomics Society, New York, September 22-26. Santa Monica, CA.

Nissen, M.E. and Leweling, T.A., "Conceptualizing Dynamic Organizational Fit in Multicontingency Contexts," *Proceedings* Academy of Management Conference, Anaheim, CA (August 2008).

Articles in Non-Refereed Publications

Other Publications

Hayes-Roth, F., Reading, D., and Small, G. (September 2008). Maritime Information Exchange Model (MIEM) User Guide. Washington, DC, Naval Research Laboratory, Space Systems Development Department.

Hayes-Roth, F., Reading, D., and Small, G. (September 2008). Maritime Information Exchange Model (MIEM) Software Version 1.0. Washington, DC, Naval Research Laboratory, Space Systems Development Department.

MacKinnon, D., Schacher, G., **Hutchins**, S., and Freeman, J., (2008). Maritime Domain Awareness, FY08 Assessment Report. Naval Postgraduate School, Technical Report, NPS-IS-08-004. Monterey, CA.

Presentations (not included in conference proceedings above)

Dolk, D. "Model Management for Agent-Based Modelling and Simulation", Presented at the IFIP Working Group 7.6 on Optimization and Systems Modelling Workshop in Warsaw, Poland, September 1-3, 2008.

Dolk, D., Pickl, S., Bordetsky, A. "Network-based DSS", Presented at Operations Research 2008 Conference, Augsburg, Germany, Sep 3-5, 2008

Nissen, M.E., “Knowledge Management,” invited presentation, Information Professional Center of Excellence Senior Officer Course, Naval Postgraduate School, Monterey, CA (August 2008).

Nissen, M.E., “The Logic of Organizing,” invited presentation, Logic Group, Stanford University (July 2008).

Grants and Funding

Dolk, D. “Global Information Grid Enterprise Services Management and Engineering”, CRADA with nGAP, Inc., $100,000.

Awards

Significant Professional Activities

Rick **Hayes-Roth** participated substantially in development of the Maritime Information Exchange Model (MIEM), under development for two years, which was released in September for general use throughout the Navy and Coast Guard. DHS has agreed to incorporate the MIEM as the maritime domain information exchange model in the National Information Exchange Model (NIEM) that supports federal, state and local law enforcement agencies. The MIEM uses XML technology to model objects of principal interest, including: characteristics and movements of people, vessels, and cargo; facilities and ports; threats, anomalies, and events. All modeled entities are treated as dynamic, having characteristics and behaviors that change over time. Temporal scope includes the past, present and forecast future. All assertions are considered as beliefs, with more or less uncertainty, supported by evidence and metadata. The MIEM resulted from seminal work on the semantic requirements for a rich model of *Track* conducted here at NPS over the last five years. That work began with NPS RIP funding, then was supported by the US Navy through NAVSEA PEO IWS 6 (Cooperative Engagement Capability) and then NRL (Comprehensive Maritime Awareness JCTD). The rich semantic *Track* continues as a dissertation focus of Curt Blais.

PhD Student Accomplishments

Hudgens, B.J. and **Bordetsky**, A., “Adaptive Emergency Response Networks,” Networking and Electronic Commerce Research Conference, 25-28 Sep 2003, Lake Garda, Italy.

Hudgens, B.J., “Strategic Purchasing,” In Rendon R.G. and Snider K.F. (Eds.), Management of Defense Acquisition Projects, pp. 241-257, Reston, VA: American Institute of Aeronautics and Astronautics, Inc.