Joshua Eric Introne

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Education

2008	Ph.D. in Computer Science, Brandeis University, 2008 *Dissertation: Adaptive Mediation in Groupware*	Waltham, MA
1999	MA in Computer Science, Brandeis University, 1999	Waltham, MA
1995	AB in Computer Science and Mathematics, Bowdoin College, 1995	Brunswick, ME

Research Interests

Joshua Introne develops mediating artifacts to enhance collaborative activity and study collective intelligence. Mediating artifacts can improve a group's ability to coordinate its activities and an individual's ability to process and organize large amounts of information in collaborative settings. Dr. Introne is interested in the design of these representations, and has examined their use in command and control and decision support.

Developing intelligent automation in support of group work is another area of interest for Dr. Introne. Information that passes through mediating artifacts acquires structure that can be leveraged by run-time automation to eliminate known problems or enhance collaborative performance with respect to some criteria. Dr. Introne has used aggregate assessments of deliberative conversations to improve information pooling in group decision making.

Mediating artifacts can also serve as a lens through which to observe collaborative activity, and purposeful mediation is a way to examine theories about collaborative activity. Dr. Introne has shown how one type of normative mediation can improve collaborative decision making along some dimensions, yet can disrupt other collaborative processes which are important for decision making. Such results demonstrate benefits and drawbacks of normative approaches to group support and form the basis for novel designs for future systems.

Employment History

March 2005 – June 2007	Senior Scientist at Charles River Analytics	Cambridge, MA
March 2001 – March 2005	Scientist at Charles River Analytics	Cambridge, MA
May 2000 – October 2000	Developer at Fitplay, Inc.	Waltham, MA
April 1999 – May 2000	Developer at GTE Laboratories, Inc.	Waltham, MA

Research Funding

Proposal author (2008) – Gradual Revelation of Organized Information via Interactive Transmission (GROKIT). Phase I DARPA SBIR, Contract Number W31P4Q-08-C-0175, $99K.

Proposal author, Technical Lead (2006-2007) – Facilitated Argumentation through Automatic Acquisition and Synthesis of Time-critical information (FAAAST). Phase I Air Force SBIR, Contract Number FO61-054-0719, $99K.

Proposal author, Principal Investigator (2006-2007) – Rapid Evidence Aggregation Supporting Optimal Negotiation (REASON). Phase II DARPA (IPTO) SBIR, Contract Number W31P4Q-06-C-0366, $414K.

Proposal author, Technical Lead (2004-2005) – Rapid Evidence Aggregation Supporting Optimal Negotiation (REASON). Phase I DARPA (IPTO) SBIR, Contract Number W31P4Q-05-C-R038, $99K.

Proposal co-author, Technical Lead (2003-2005) – Automated Link Analysis for Data-mining of Distributed Information (ALADDIN). Phase II OSD SBIR, Contract Number DAMD17-03-C-0057, $750K.

Proposal co-author, Technical Lead (2004-2006) – Agent-based Terrorist Attack Prediction (ATAP). Phase II Army SBIR, Contract Number W15QKN-04-C-1144, $730K.

Proposal co-author, Technical Lead (2001-2003) - Multi-agent Architecture for Robust Adaptive Decision-aiding (MARAD). Phase II Army SBIR, Contract Number DAAE30-00-C-1055, $730K.

Presentations

Consensus through Awareness in Online Deliberation. Invited talk at the MIT Humans and Automation Laboratory's Humans and Technology Symposium; Cambridge, MA; Jan 23-26, 2006.

Collaborative Argumentation for Knowledge Management. Workshop on Organizational Knowledge Management at the 7th International Conference on the Design of Cooperative Systems; Provence, France; May 9-12, 2006.

Intelligent Automation in Collaborative Systems. Paper presented at the 7th International Conference on the Design of Cooperative Systems; Provence, France; May 9-12, 2006.

A Data Fusion Approach to Biosurvellance. Paper presented at the 8th International Conference on Information Fusion; Philadelphia, PA; July 25-28, 2005.

Publications

Introne, J. and Alterman, R. (2006) Using shared representations to improve coordination and intent inference. *User Modeling and User-Adapted Interaction.* 16(3-4): 249-280.

Introne, J. and Alterman, R. (2006) Intelligent Automation in Collaborative Systems. *Proceedings of the 7th International Conference on the Design of Cooperative Systems.* pp. 164-179.

Introne, J., Levit, I., Harrison, S., and Das, S. (2005) Early Detection of Bioterrorism via Higher Level Fusion. *Proceedings of the 8th International Conference on Information Fusion (Vol. 2).*

Das, S., Introne, J., Lawless, D., Hoyt, R., and Muza, S. (2004) Probabilistic Unit Life Status Estimation (PULSE). *Proceedings of the 7th International Conference on Information Fusion.* pp. 951-958.

Introne, J., & Alterman, R. (2004). Leveraging a better interface language to simplify adaptation. *Proceedings of the 9th International Conference on Intelligent User Interfaces.* pp. 262-264.

Introne, J., & Alterman, R. (2003). Leveraging Collaborative Effort to Infer Intent. *Proceedings of the 9th International Conference on User Modeling.* pp. 133-137.

Alterman, R., Feinman, A., Introne, J., & Landsman, S. (2001). Coordinating Representations in Computer-Mediated Joint Activites. *Proceedings of the 23rd Annual Conference of the Cognitive Science Society.*

Tan, M., Lee, J., Xu, H., Introne, J., Matheus, C. (2000) Wireless Usage Analysis for Capacity Planning and Beyond: A Data Warehouse Approach. *Proceedings NOMS 2000, Honolulu, HI.*

Alterman, R., Landsman, S., Introne J., and Feinman, A. (1999) Adaptable Groupware. *Proceedings of Human Centered Processes*, pp. 107-112.