



# **Military Ontology Development**

## **Dynamics Research Corporation**



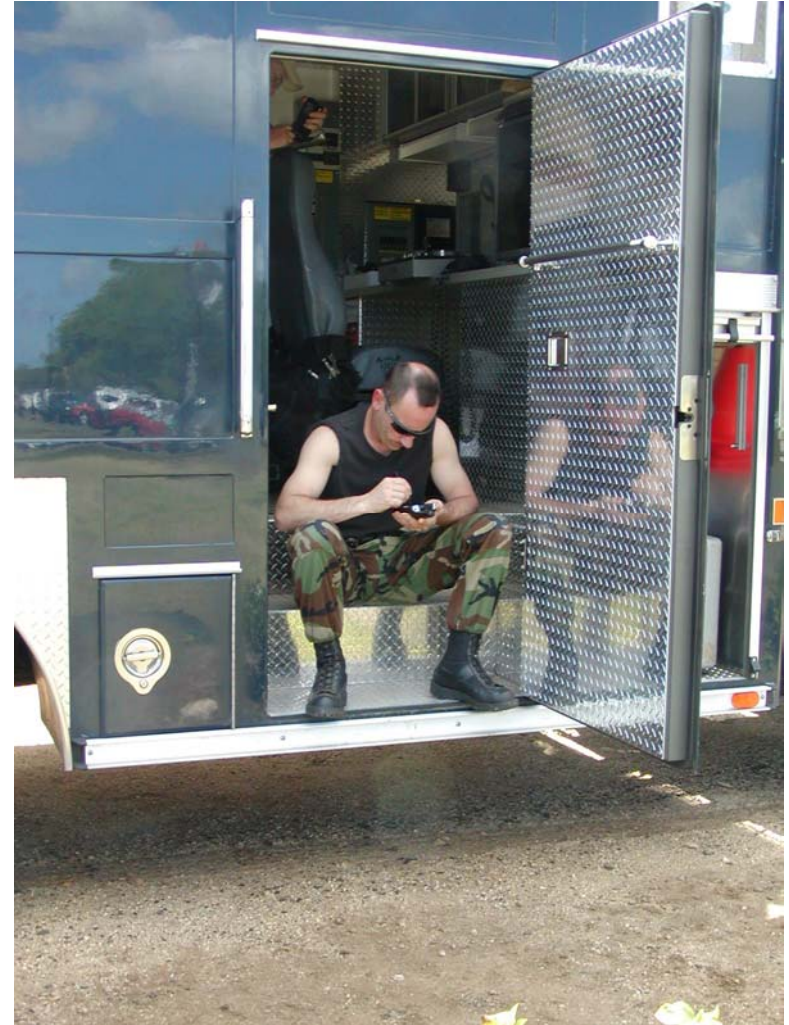
Lee W. Lacy  
December 1, 2004



# Overall Program Summary



- DRC focused on developing ontologies and applications for military users
- Developed a systematic process for developing ontologies
- Identified military user requirements and worked with them to develop ontologies to support their applications





# Technical Progress

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- Developed ontologies in several categories:
  - Military task list
  - Military equipment
  - Explosive Ordnance Disposal job aid
  - Intelligence Reporting / Homeland Security
  - Horizontal (common use)
- Developed demonstration prototypes:
  - Military equipment data search with semantic join
  - Dynamic Job Aid System
  - OWL ontology encoding tool (from MS Access)
  - Restaurant Finder (HotDAML)



# Transition/Handoff

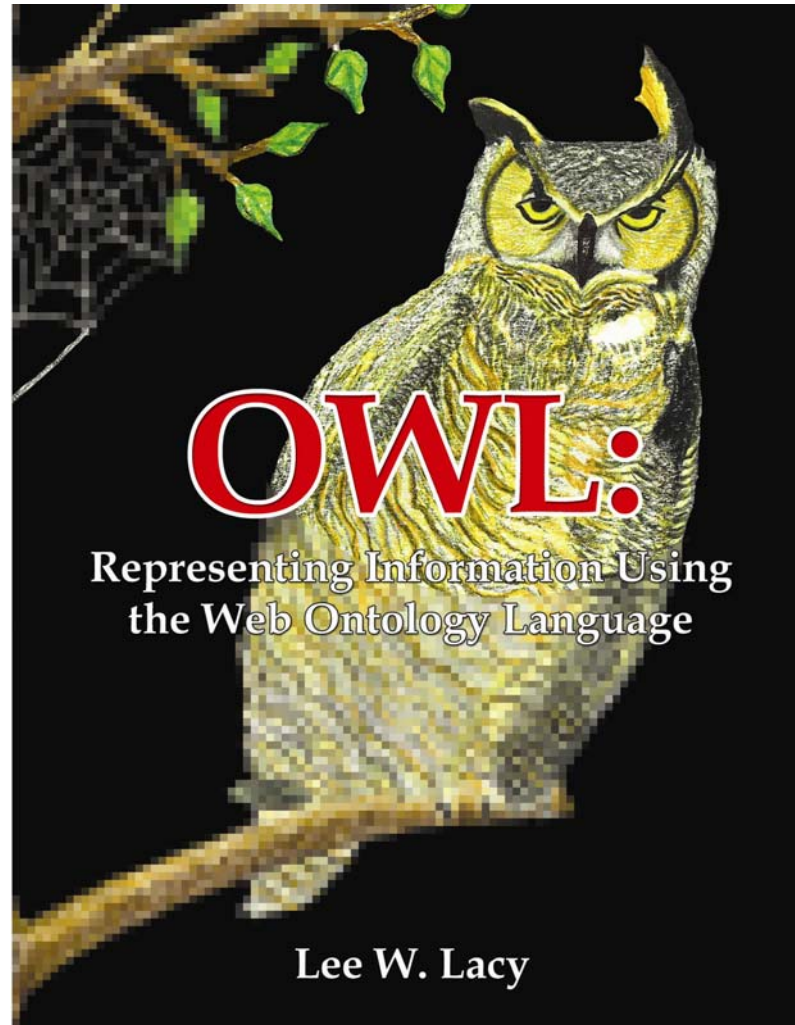
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- Ontologies and other results available at: <http://orlando.drc.com/semanticweb>
- Contributed to technical editing of OWL documents
- Ontologies and software being delivered as part of final report and Software Product Specification (SPS) deliverables to AFRL
- Related conference papers presented to simulation conferences including I/ITSEC, SIW, WinterSim
- Contributed to several DoD prototype efforts including NPS and JEOD ACTD
- DARPA work spawned new contracts with JEOD ACTD, DMSO (HBR), AFRL/BBN (FCG)
- Newest contract involves using a procedure ontology to support a condition-based job aid for EOD community



# OWL Syntax Book



## OWL: Representing Information Using the Web Ontology Language



# Military Ontology Development Remaining Issues

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Issue	Remediation
Final deliverables	Will be provided later this month (December)



# Summary



- Military-related applications developed to support specific needs
- Some ontologies demonstrated through applications
- OWL syntax book available in December



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