

Yaser Bishr, Ph.D., Personal Biography

14 Years of Experience

Education:

Ph.D., Computer Science, Thesis: "Semantic Aspects of Interoperable GIS", 1997.

M.S., Intelligent GIS, 1993.

Dipl, GIS, 1992.

B.S., Civil Engineering, 1989.

Summary of Qualifications

- PI geospatial ontology framework for NGA.
- Technical Lead for Semantic Mapping Tools SBIR, Army Core of Engineers
- OWL, OWL-S, RDF, XML, SWRL, UML, Java, and J2EE technologies.

Highlights of Relevant Experience

- Dr. Yaser Bishr has spent the last 10 years focusing on advanced research and prototyping of geospatial-semantic technologies.
- Dr. Yaser Bishr is the CTO of Image Matters where he runs advanced Knowledge Management Lab. Dr. Bishr is one of the principle architects of *userSmarts*, a pioneering implementation of integrated geospatial-semantic technologies.
- He is PI on the Geospatial Ontology Framework at NGA. In this project, Dr. Bishr is developing the foundations for geospatial-semantics for future Geospatial Ontology development at NGA. This includes: evaluating current GIS implementations in terms of their ability to capture the semantics of topological, temporal and geometric relationships; developing the components of the framework, which includes mereotopology, temporal dimension, taxonomy and dependence, location and orientation; assisting NGA in articulating the requirements for the Geospatial Semantic Web; and coordinating NGA activities and priorities with organizations involved in developing Semantic Web and Geospatial Semantic Web technology.
- He is PI on Semantic Markup and Exploitation of Geospatial Products for NGA. In this project, Dr. Bishr is developing the theoretical foundation and the suite of prototypes to enable problem oriented data discovery and exploitation.
- Dr. Bishr was the chief scientist on the Semantic Mapping Tools SBIR Projects for the U.S. Army, phases I, II and III. Dr. Bishr worked with a team of engineers to develop knowledge models for Context-Sensitive Service, employing a three-tiered ontology framework: user, process and domain ontologies. During this research, Dr. Bishr designed and helped develop the Semantic Markup Tool, which will be enhanced and provided under this effort.
- He is co-chair of the Information Communities and Semantics Interest Group, OGC, and a founding member of the eGov Semantic Interoperability Community of Practice.
- Dr. Bishr is currently a lead architect in the FEMA Mapping Modernization Project, which has the goal of building a nation-wide interoperable system to track and share flood mapping information. He is designing a Geospatial Information Framework to share flood information across the nation.
- He has been lead architect of several OGC initiatives, including: Transportation Framework Modeling, sponsored by BTS, and Geospatial One Stop, sponsored by OMB and NASA, where he led the development of a data sharing model framework for Geospatial One Stop.
- He has over 24 publications, including a book on the subject of geospatial semantics.

Job History

2001-Present Image Matters, LLC, CTO/Senior Consultant
2000-2001 Millennia, Germany, CTO
1998-2000 Muenster University, Germany, Assistant Professor
1989-1991 Soils & Water; Software Developer