

Stephen W. Clyde

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Dr. Stephen Clyde is software-engineering entrepreneur and an associate professor in the Computer Science Department at USU, with 43 years of experience in creating commercial software, operating business, managing software teams, teaching, and research.

As an entrepreneur, Stephen has co-founded eight software companies and worked with each in a variety of capacities, including CEO, broad member, president, vice president, chief software-system architecture, and lead developer. He has personally developed or led software teams in developing numerous commercial applications in health care, education, transportation, finance, construction, e-commerce, manufacturing, and business operations. Many of these systems are distributed with multiple data sources, data consumers, background processes, and sophisticated inter-process communication. Stephen is currently serving as Chief Technical Officer and Managing Member for three LLC's: Multidimensional Software Creations, Snapp Studios, and Moneo Systems.

Stephen completed his Ph.D. in Computer Science in 1993 at Brigham Young University and accepted an academic position at Utah State University. However, he continues to play an active role industry, which allows him to bring emerging technologies, real-world examples, and industry experiences into the classroom and to help students discover job opportunities.

His current research interests at USU are in distributed systems, communication-protocol design, data and application integration, aspect orientation, software testing, and test-data creation. Some of his major research contributions include the adaptation of aspects to the implementation of crosscutting concerns for high-level concepts, such as inter-process conversations and distribution transactions; the research and development of software frameworks for implementation of distributed applications, the research and development of de-duplication technologies for federated person-centric systems, and the research and development of master person indices and information brokers. In particular, he pioneered an "arms-length information broker" architecture for integrated person-data systems that maintains confidential by sharing only necessary protected personal information, while still allowing for good person matching across data sources. Early in his career, Stephen also



developed the formal semantics of a robust and expressive object-oriented modeling language, called OSM, and engineering methods for object-oriented analysis and design, called OSA and OSD.

Also at USU, Stephen has been deeply involved with the development and evolution of the undergraduate CS curriculum, and he developed and taught new courses in Computer Science Methods, Software Engineering, Distributed System, Objected-objected Software Development, Aspect-oriented Software Development, Software Design Patterns, Software Testing, and variety of special topics. He received the CS Teacher of the Year Award in 2013 and again 2014. He is the head of the industry advisor board, as well as the software-engineering curriculum committee, and services on the undergraduate curriculum committee.

Stephen has been PI or Co-PI on dozens of externally funded projects while at USU that have provided research opportunities and financial support for over 60 students. In the last 10 years, most of these funded projects focused on the research development of software-engineering advancements for distributed systems.

Stephen began participating in IARIA conferences and publishing in IARIA journals in 2013, and done so every year since then. Specifically, he has been keynote speaker, panelist, and author, and has served on advisory and technical committees.

Even though Stephen loves creating software system, researching, teaching, and staying involved in industry, his real joy is his family. He and his wife have seven children and thirteen grandchildren.