

Preface

Looking across the range of application areas and application products today, the reoccurring keyword is “intelligence.” From web intelligence for business applications to coordinating robotic teams for NASA’s exploration vision to DOD’s net-centric approach to modern approaches for network security, all applications are expected to incorporate ‘intelligence’. The intelligence may be required for the application to succeed, or it may be an enhancement over a “dumber” version. Indeed, “intelligence” now serves as a system discriminator.

But exactly how is the intelligence in a distributed system expressed? What paradigms are proving particularly fruitful to support the expression of intelligence? What research areas are synergistic in supporting the expression of intelligence? What methodologies are useful for building intelligence into systems? And what are the tools available that support these methodologies and allow the hardware and software engineering teams to rapidly develop the intelligent distributed applications? What is the tool gap?

This symposium investigates the above questions through a mix of invited presentations, research papers, and position papers. The mix of papers includes several that discuss prototyped intelligent systems, as well as many which present applicable “intelligence” technologies. The range of topic areas that the invited papers address serves to illustrate the diverse elements that pertain to intelligent systems.

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