Intelligent Social Network Interventions to Augment Human Cognition for Bolstered Inter-disciplinary Interactions in Project Teams

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Goal

To augment human cognition and the functioning of multi-team systems via immediate and machine/deep learning enabled social network interventions to help individuals develop the skills needed for future of work and facilitate short and long-term economic and social benefits.

A **trans-disciplinary** team of experts in:
- Architectural engineering
- Social networks
- Computer science
- Psychology
- Economics
- Education

will follow an integrative research effort to address the research questions below.

Research Questions

1. How to prepare individuals for the future of work in complex social systems?

2. How social network interventions bolsters multiteam coordination?

3. How can machine learning automate sociogram development and diagnose network problems to augment human cognition for multiteam coordination?

4. What are economic and social implications?

Methodology

An integrative research model and a longitudinal, comparative research is proposed using authentic and student project teams. A logic model for intelligent social networks in architecture, engineering, & construction(AEC) multi-team systems is shown below.
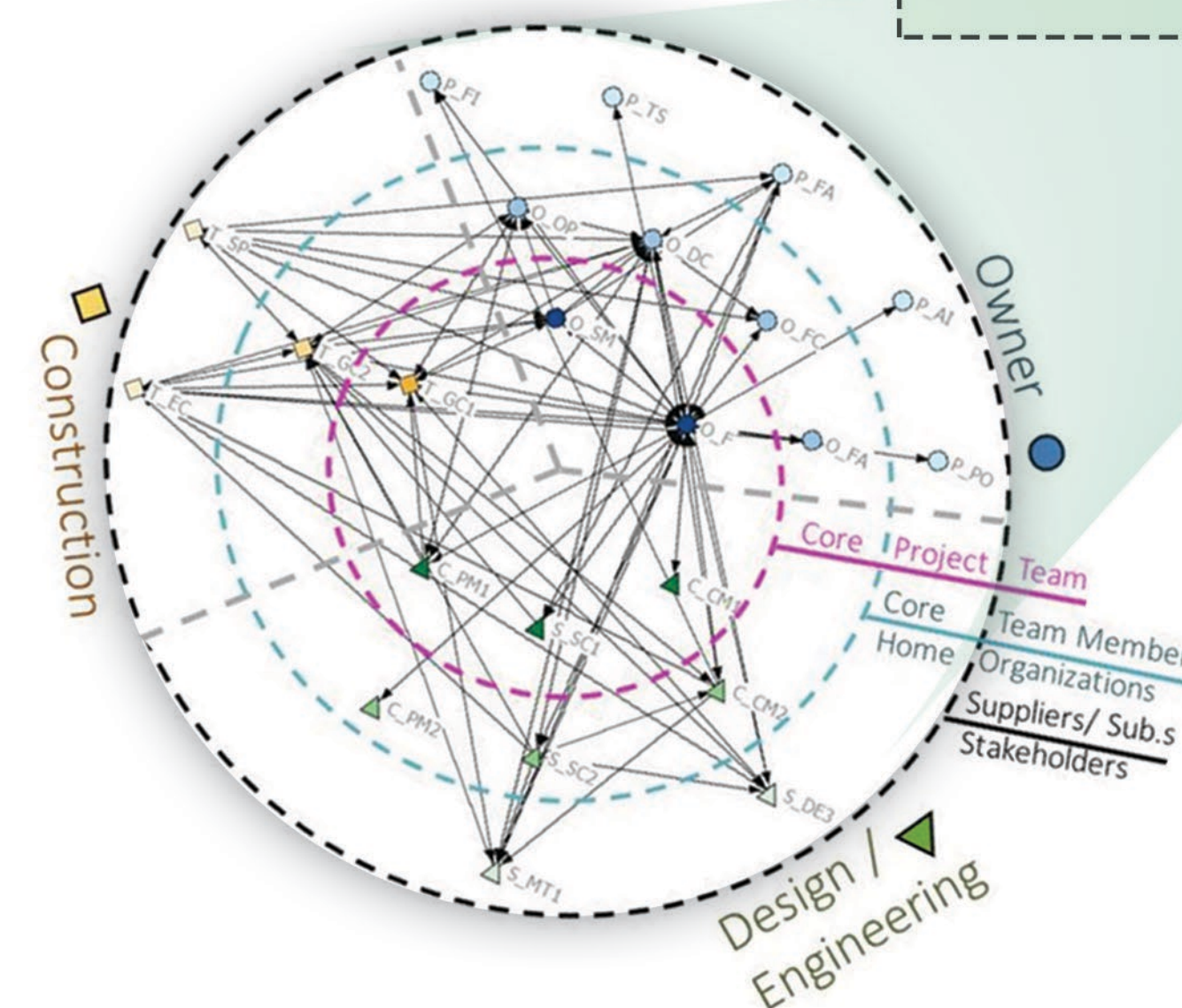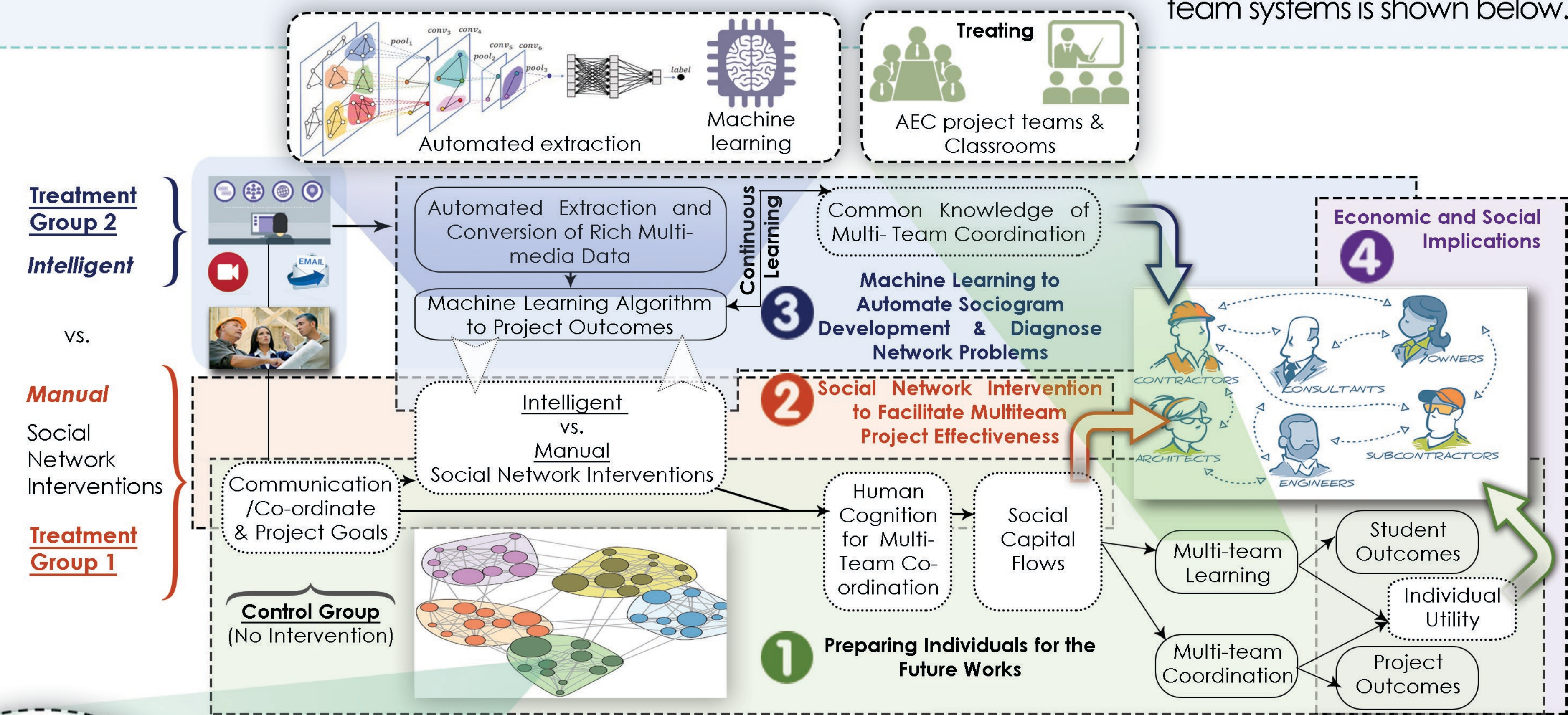
Expected Outcomes

- A practical system, equipping individuals and organizations with sufficient means to facilitate multi-team coordination and project effectiveness.

- Positive impacts in the productivity of AEC workers that immediately take part in project teams extending to a broad range of workforce.

- Contributions to the science of organizations, engineering, and R&D teams across industries that employ complex multi-team systems.

- New learning modules for project-based teaching and learning that incorporate intelligent social network interventions to help train future workers.

- Advancements in the use of technology to sensitize humans on how teams work and continuously improve their skills for improved project performance, individual learning, and future of work.