Systems Governance in Joint Military Acquisition Requirements Generation: A Systems Thinking Approach

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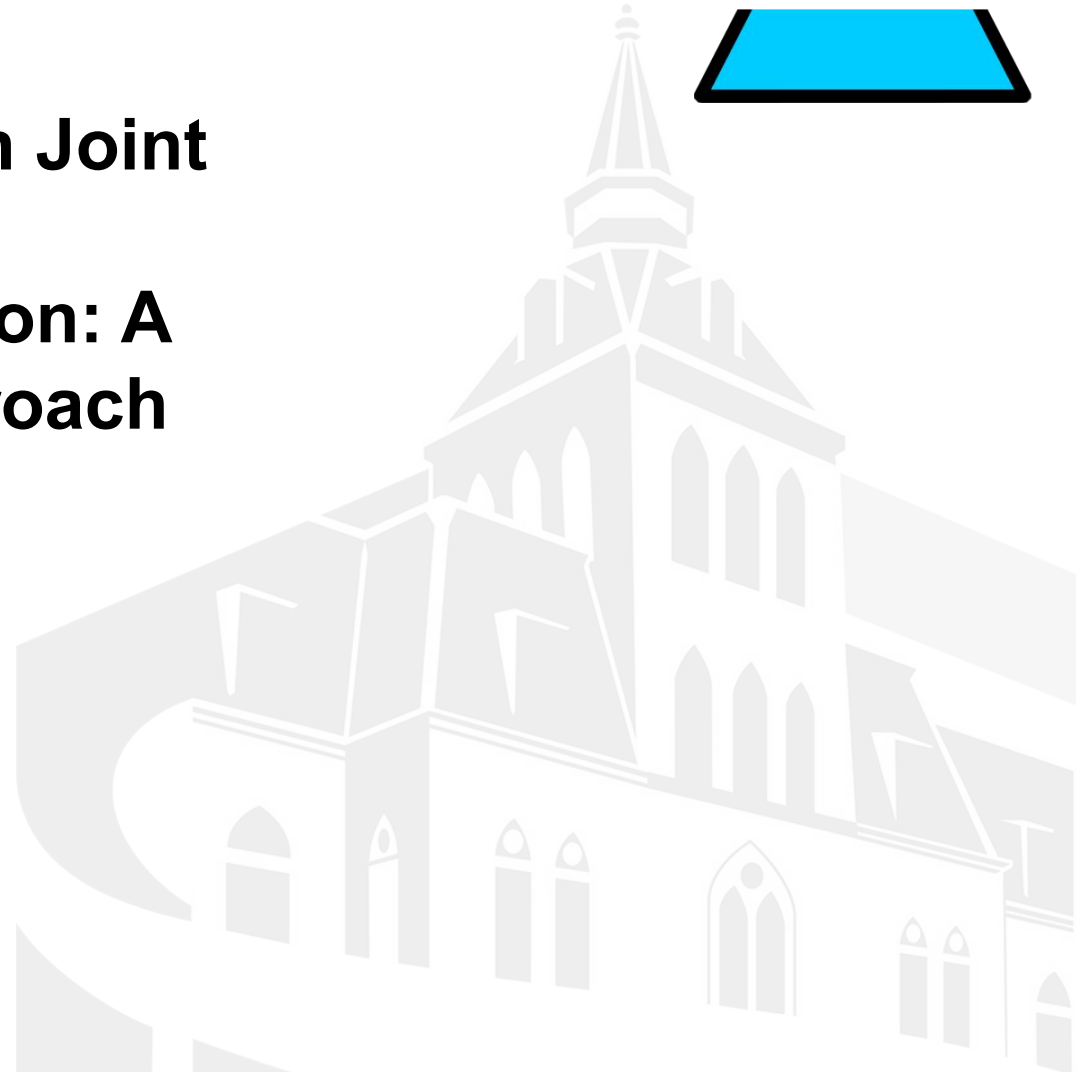
Resume - Jack Goldberg

- PhD student at Stevens Institute of Technology in Sociotechnical Systems
- Advised by my coauthor Professor Mo Mansouri

- Undergraduate degree in computer science at Bucknell University
    - Research assistant at the Bucknell Institute of Public Policy

- Research interests include governance systems, systems thinking, and political systems.

Joint Capabilities Integration and Development System

- Initiated by Donald Rumsfeld in 2002

- Called a system, but is actually a process by which military services can validate joint capability requirements.

- Supposed to ensure interoperability between services and allow for purchasing economies of scale through joint purchases of materiel.

- The main issue facing JCIDS is process latency
  - Technology is evolving faster than it takes to validate a requirement.
  - Materiel is not reaching the force fast enough to be operationally useful.
  - Latency costs more money to taxpayers.
  - Review of the process was ordered by the House Armed Services Committee

- Services are utilizing the Middle Tier of Acquisition to help bypass JCIDS, which speeds up the acquisition process but increases the risk of interoperability failure.

Methodology

Systems Thinking Approach

- Information sources we use
    - MANUAL FOR THE OPERATION OF THE JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM (2018)
    - Unstructured, and coded, interviews with subject matter experts and JCIDS personnel.
    - General literature review.

- We conduct analysis of the following
    - Stakeholder interaction
    - Value adding processes
    - Shaping forces
    - Systemigram
    - System dynamics

- Ultimately, we synthesize our work into a cogent conclusion that explains why Congress's focus on the JCIDS process is a misplaced concern, and why systems governance is a more prescient issue.
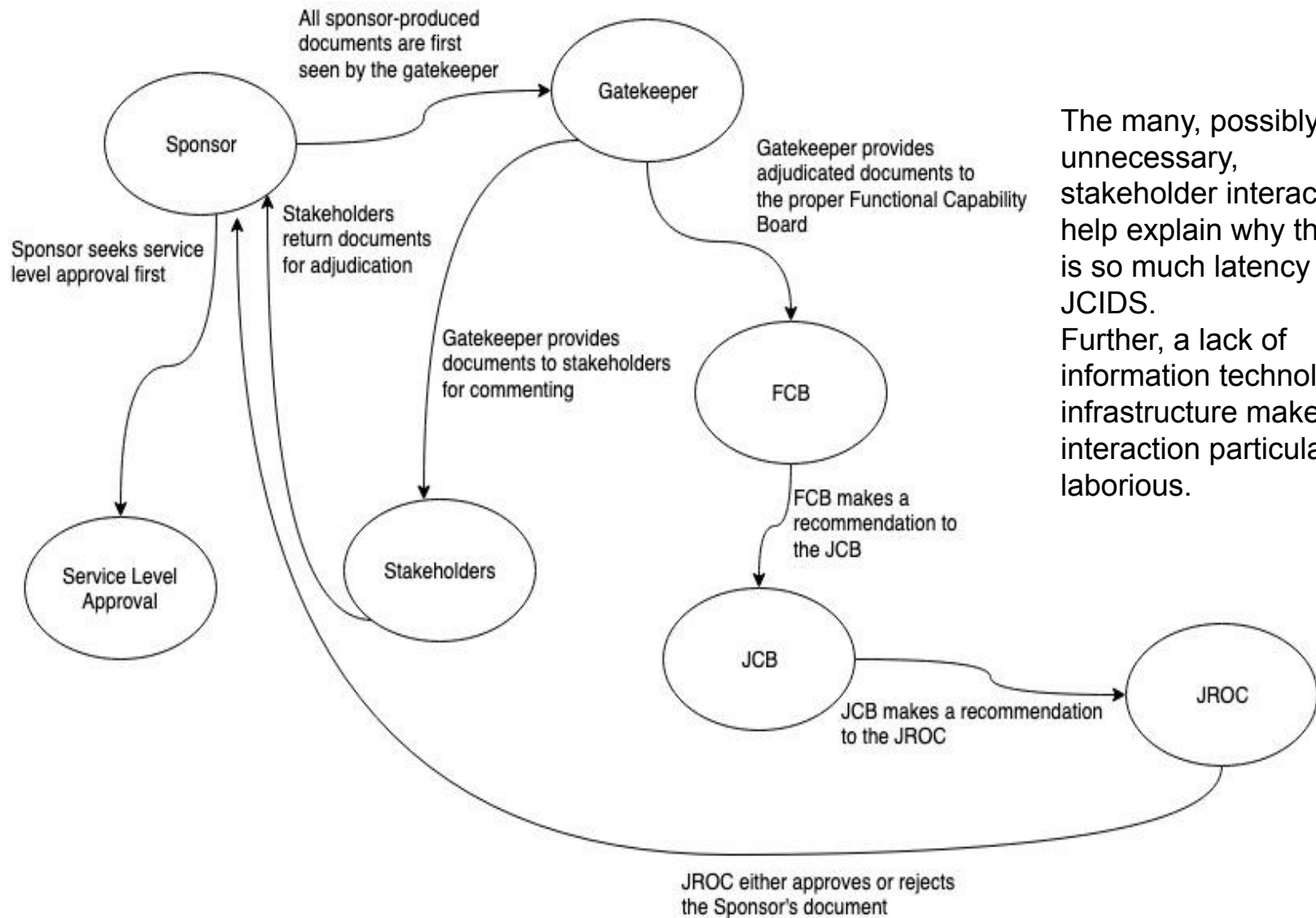
Systemigram
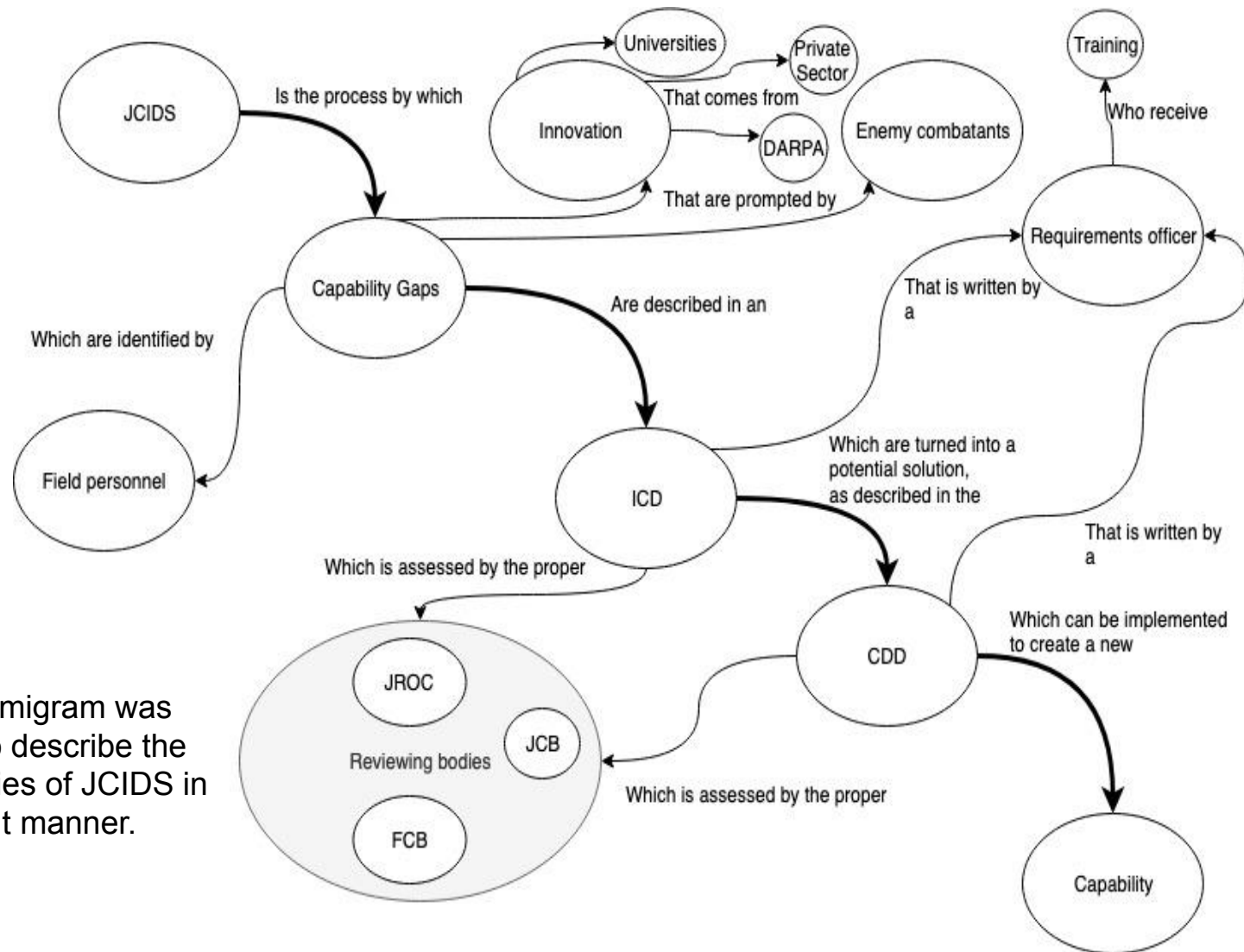
The systemigram was created to describe the complexities of JCIDS in a coherent manner.
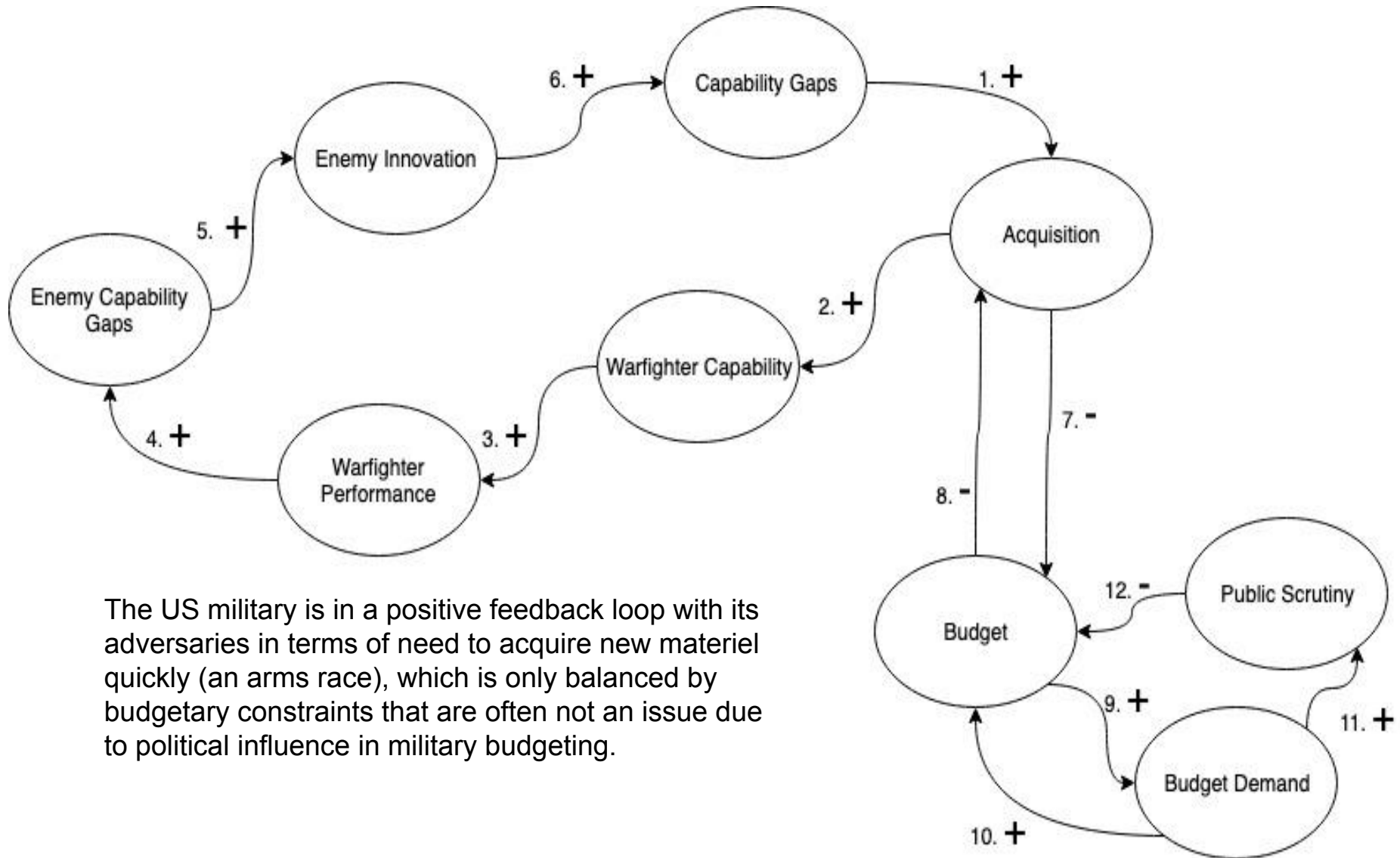
Stakeholder Interaction

The many, possibly unnecessary, stakeholder interactions help explain why there is so much latency in JCIDS.
Further, a lack of information technology infrastructure makes the interaction particularly laborious.

Systems Dynamics

The US military is in a positive feedback loop with its adversaries in terms of need to acquire new materiel quickly (an arms race), which is only balanced by budgetary constraints that are often not an issue due to political influence in military budgeting.

Conclusion

- Military operations have an inherent need for speedy acquisition.

- Latencies are largely caused by systems governance problems like the misalignment of incentives between oversight bodies and the military, which is leading to a circumventing of JCIDS through other acquisition pathways.

- Acquisitions are being made that have not been rigorously analyzed for interoperability.

- The House Armed Services Committee is misled in requesting a review of the JCIDS process when the latencies are more likely caused by other forces like culture or training.

- Changes must be made to JCIDS that speed up the process, reinstill trust, and ultimately enable interoperability between military services.

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