MITRE meeting notes

* Met with Tom Carroll and Hongxun Qin from MITRE
* General impressions
  + MITRE’s role/skills
    - MITRE is developing (has developed) a general approach that they can use to engage in deep/broad multidisciplinary research
    - MITRE has technological expertise and plenty of staff/skills/data, but lacks high-level quant capabilities (at least as demonstrated here)
      * Key advantage: data and analysis in finance and supply-chain
  + Researching AM
    - No such thing as “exploring AM” – huge, complex ecosystem
    - Focused effort on a small facet of the AM environment, or on a single use-case, is the best way to engage in this research
  + Parallel but separate streams of effort
    - MITRE: in-depth analysis of single issues/areas
      * Example: Chinese AM for aerospace/nuclear
    - Leo & Jesse: scalable tools for broad overviews/analyses
      * Example: general identification of intellectual communities
    - Non-duplication of funds/effort
* MITRE areas of expertise
  + Qualitative research, in-depth factual analysis
  + Access to large/complex data sources (finance data, historic data)
  + Staff-hours for research and work
* Leo/Jesse areas of expertise
  + Theory-building (game theory)
  + Quantitative / network data analysis, emphasis on meso/community level
  + Explicit focus on scalable & repeatable solutions
* General areas of synergy
  + Adding network data and network analytic methods
  + Temporal analysis and forecasting
  + Scalable research – moving away from staff-year scale to create analytic product
* Opportunities for collaboration
  + Collaborate on NPS/MITRE co-authored piece applying our respective approaches to a new problem set
    - Blend MITRE big/expensive data sets and deep qualitative analysis with our theoretical and quant-analytic skillsets
    - Different facet of AM process, different issue area, etc