

Copyright within the Context of University Technology Transfer:

Implications for Policy and Management

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First, the Conclusions

- **University technology transfer has been conceptualized in terms of a patent-centric, linear model**
 - **Not in terms of maximizing the dissemination of knowledge and commercialization**
- **However, tech transfer is a social phenomenon; facets of the current model often gets in the way**
 - **An ‘ecosystem approach’ is needed**
- **No research exists within the economics or policy literature relating to copyright (or other IP mechanisms) within the university context**

What is Technology Transfer?

- Flow of ideas and tools (knowledge) from people, groups, institutions, and geographies to others...



“I’d rather drink (good) wine”

Technology Transfer



Why is Knowledge Creation and 'Transfer' Important?



- **Intrinsic benefit: enlightenment
notion of enablement**
- **Helps solve important societal
problems in health, environment,
defense, etc.**
- **Foundation for innovation and,
thus, economic development**



**Beyond intrinsic purposes, value
depends on the extent to which
knowledge is *applied***

University Technology Transfer

- **Research universities are primary sources of new knowledge**
 - Combines research and teaching
- **Characteristics of knowledge**
 - Codified – publications and other ‘written’ mechanisms
 - Tacit – embodied within individuals, skill-based, relational



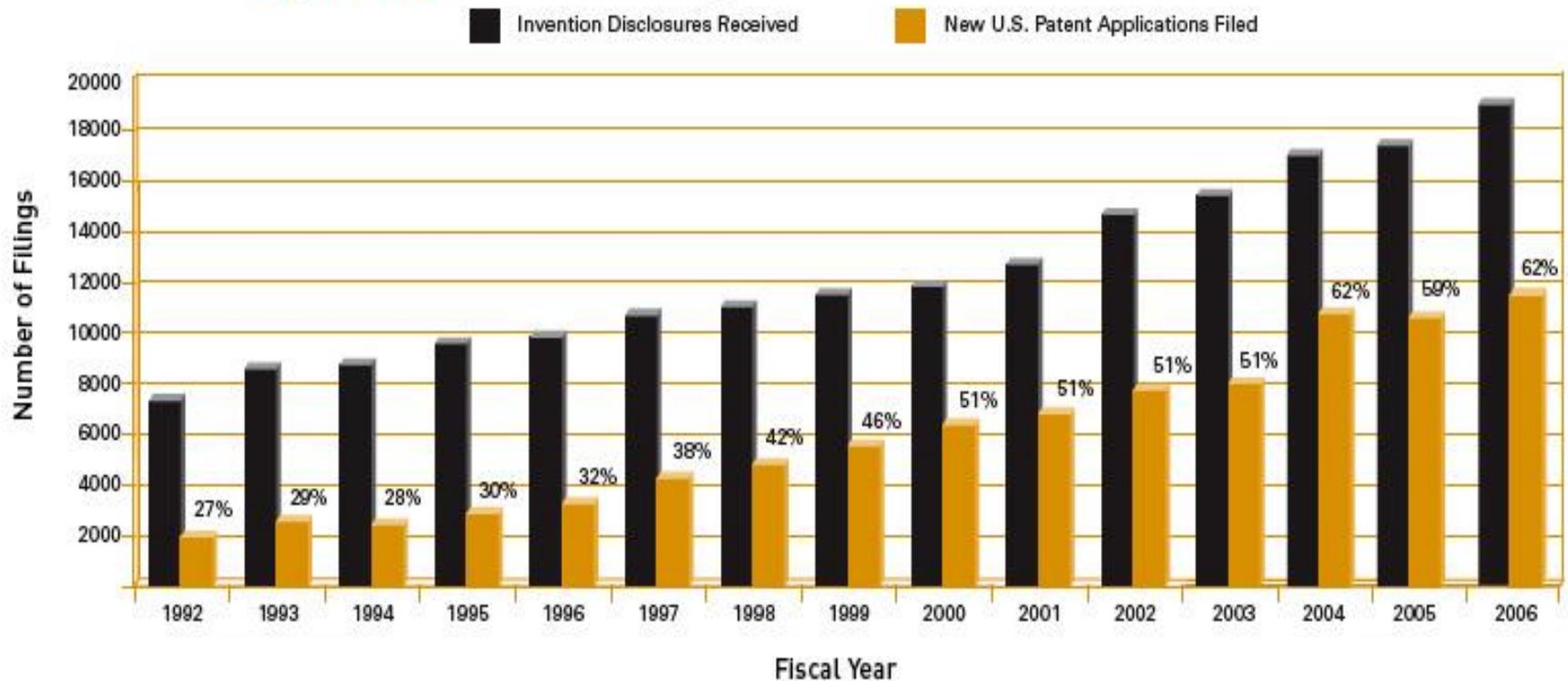


Bayh-Dole Act of 1980

Goal: improve commercialization of federally-funded research

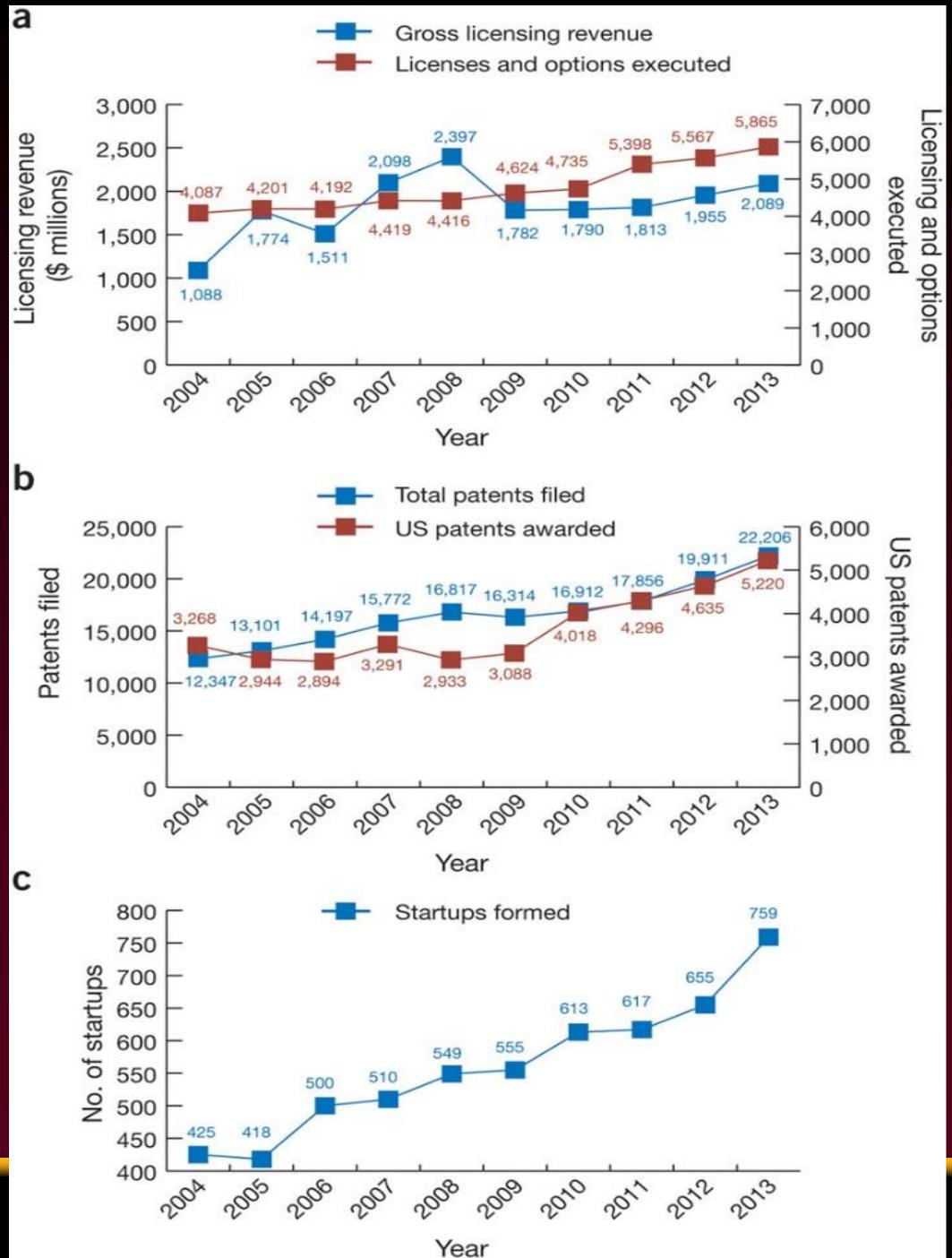
- **Universities given responsibility for management of technologies stemming from federal research**
- **Mandates: invention disclosure, reporting, protection of government interests**
- **Universities can claim ownership (or not). If so, university must patent and provide government paid-up royalty-free license**

Figure US-8. New Patent Filings and Invention Disclosures Received, 1992–2006



Source: Hugget, B. 'Reinventing technology transfer, *Bioentrepreneur*, Dec. 2014

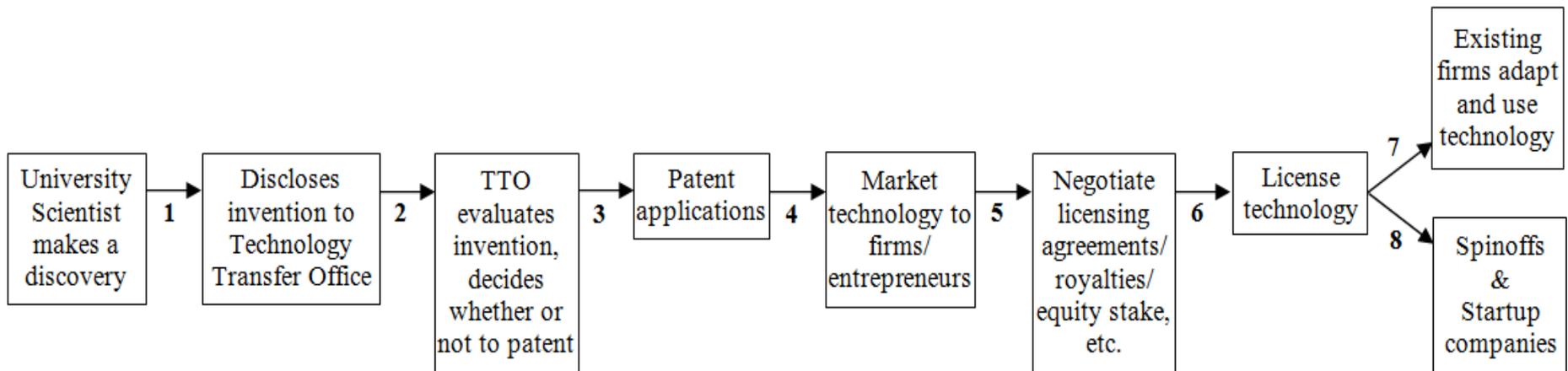
Tech Transfer Trends (2004-2015)



Source: Hugget, B. 'Reinventing technology transfer, *Bioentrepreneur*, Dec. 2014

Tech Transfer Literature

- Tech transfer is a primary economic development contribution of universities
- Focus is on patents and licenses, to a lesser extent, ‘formal’ spinoffs
- Conceptualizes tech transfer as a linear ‘process’



Source: Bradley, S., Hayter, C., Link, A. (2013), Models and methods of university technology transfer, *Foundations and Trends in Entrepreneurship*, 9(6).

Challenges Associated With Current Conceptualizations

- **Outliers vs. the struggling TTO**
 - Both instances drive revenue focus
 - Universities can appear ‘greedy’
- **Current *interpretation* of Bayh-Dole has become ‘sacred’**
 - Many frustrations exist among faculty, industry, and non-profits
 - Neglects allowable ‘alternative practices’
- **May be negatively impacting knowledge dissemination writ large, among other public missions**

Improving Commercialization

Question: To whom does a research go when they have a questions about technology commercialization?

Answer:

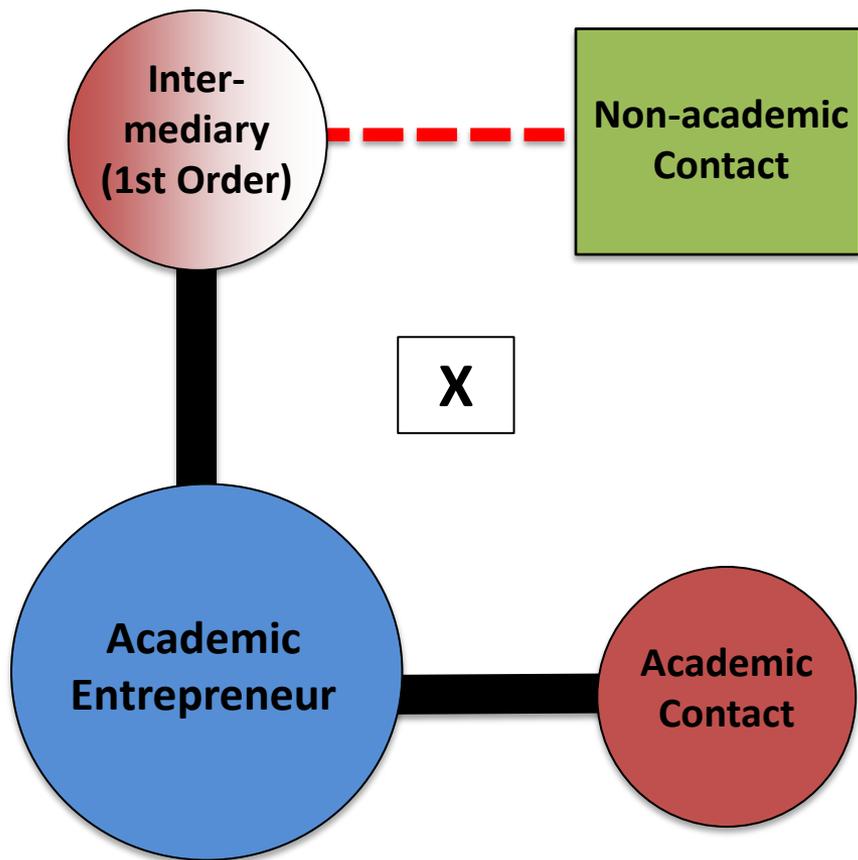
(1) a colleague and (2) tech transfer office



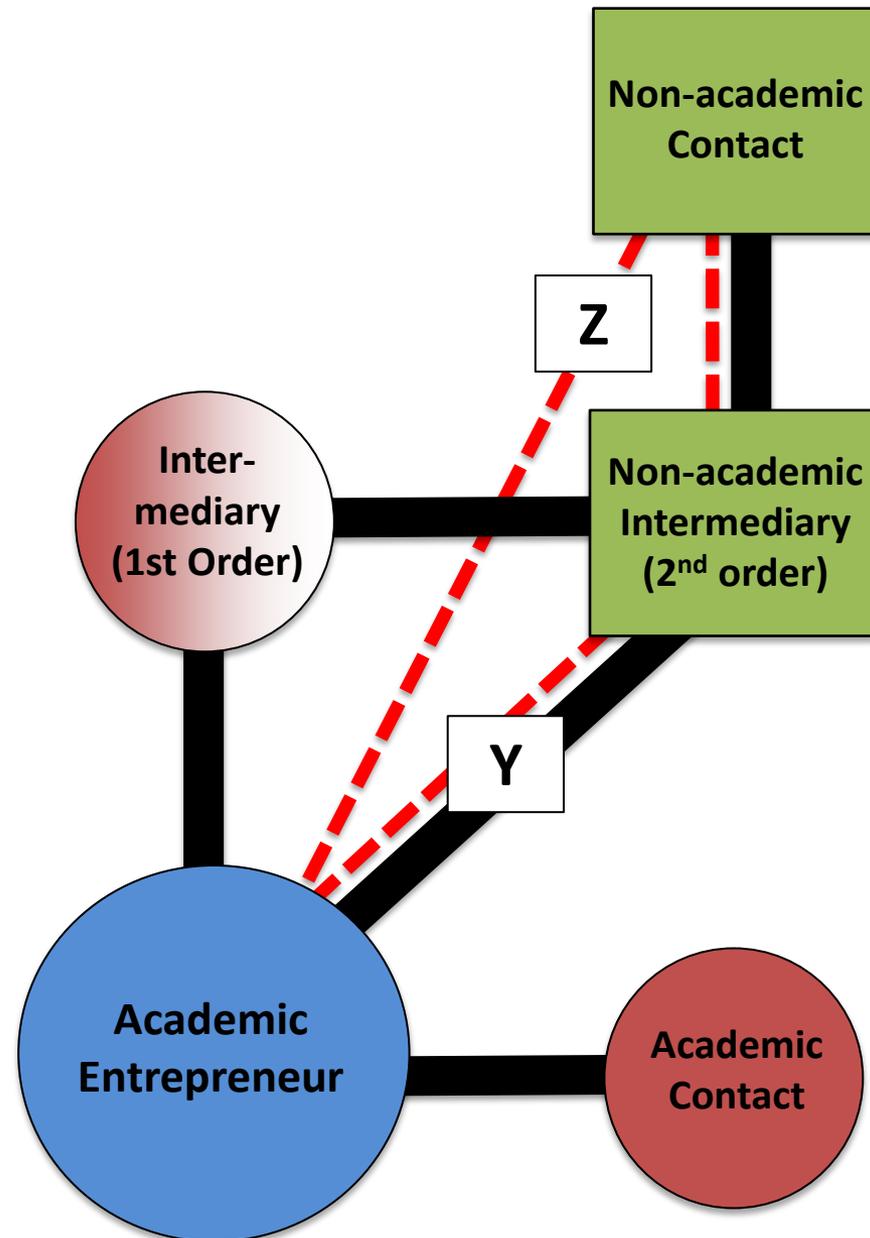
The (real) Challenge



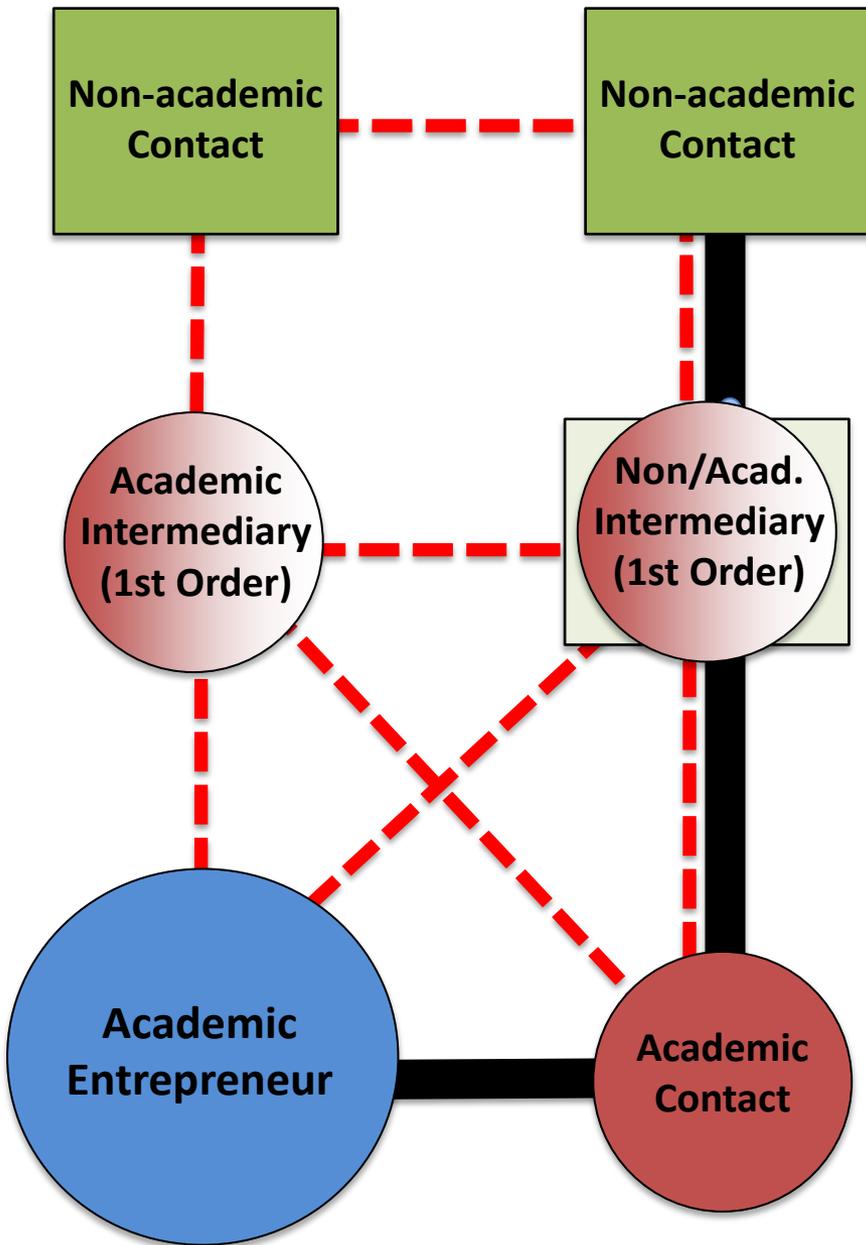
"And if the blind lead the blind, both shall fall into the ditch."
(Matthew 15:14)



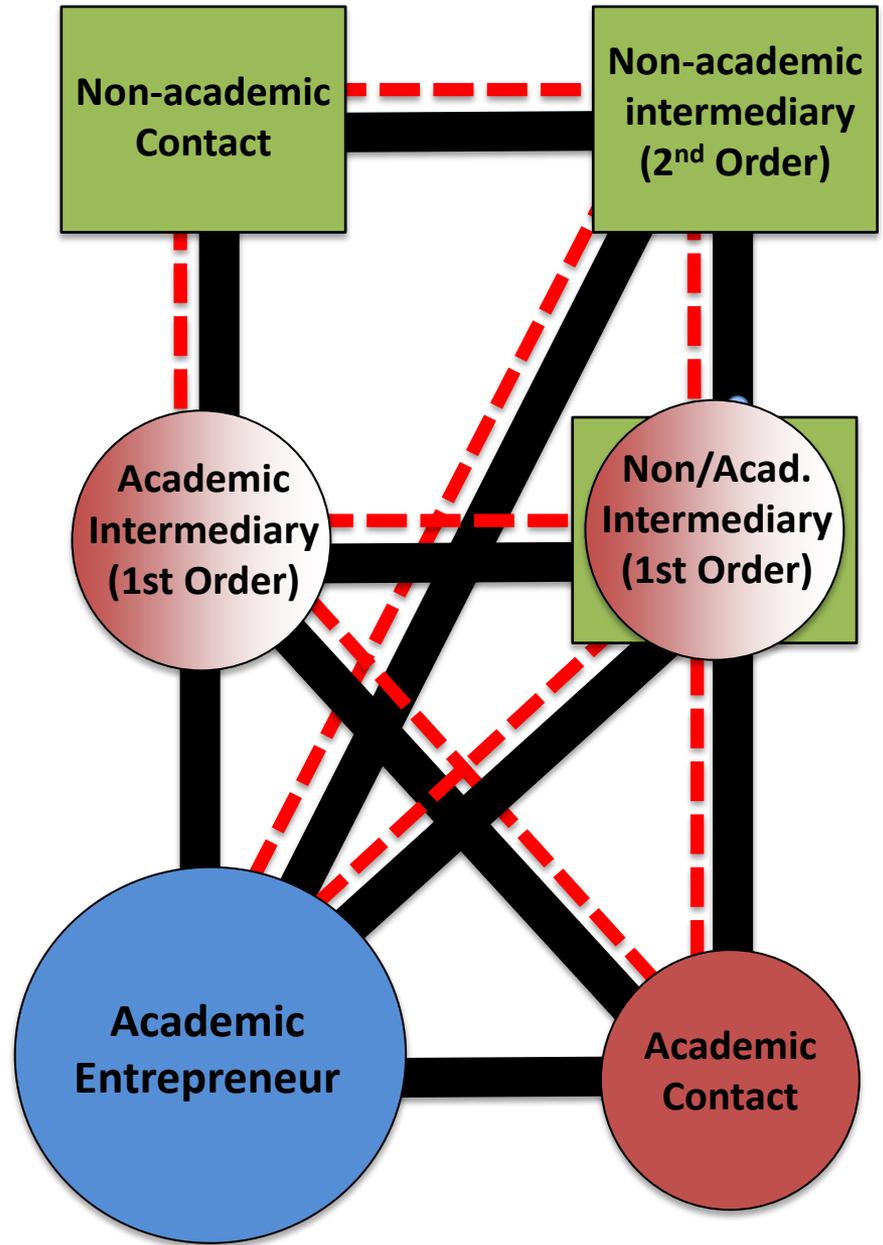
Commitment Phase



(Hypothetical) Progression



Commitment Phase



Progression

The Point

- **Technology transfer has been ‘sold’ as the primary vehicle for the economic contributions of universities**
- **However tech transfer has largely been conceptualized in terms of a patent-centric, linear model**
 - **Primary responsibility of TTO is regulatory compliance and revenue maximization**
- **At best, model neglects innovative ways to improve commercialization**
 - **At worst, it may impact the dissemination and commercialization of knowledge, other public missions**

The Point

- **Technology Transfer is a social phenomenon**
- **'Democratic' approaches are needed; bounded chaos**
 - **'University ecosystems' have many opportunities to:**
 - **Impart Entrepreneurial skills and knowledge**
 - **'Substantively Network' with individuals outside the university (within other networks)**
- **More research needed, including on the role of other IP mechanisms such as copyright**

Questions?

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Alternative Conceptualization

