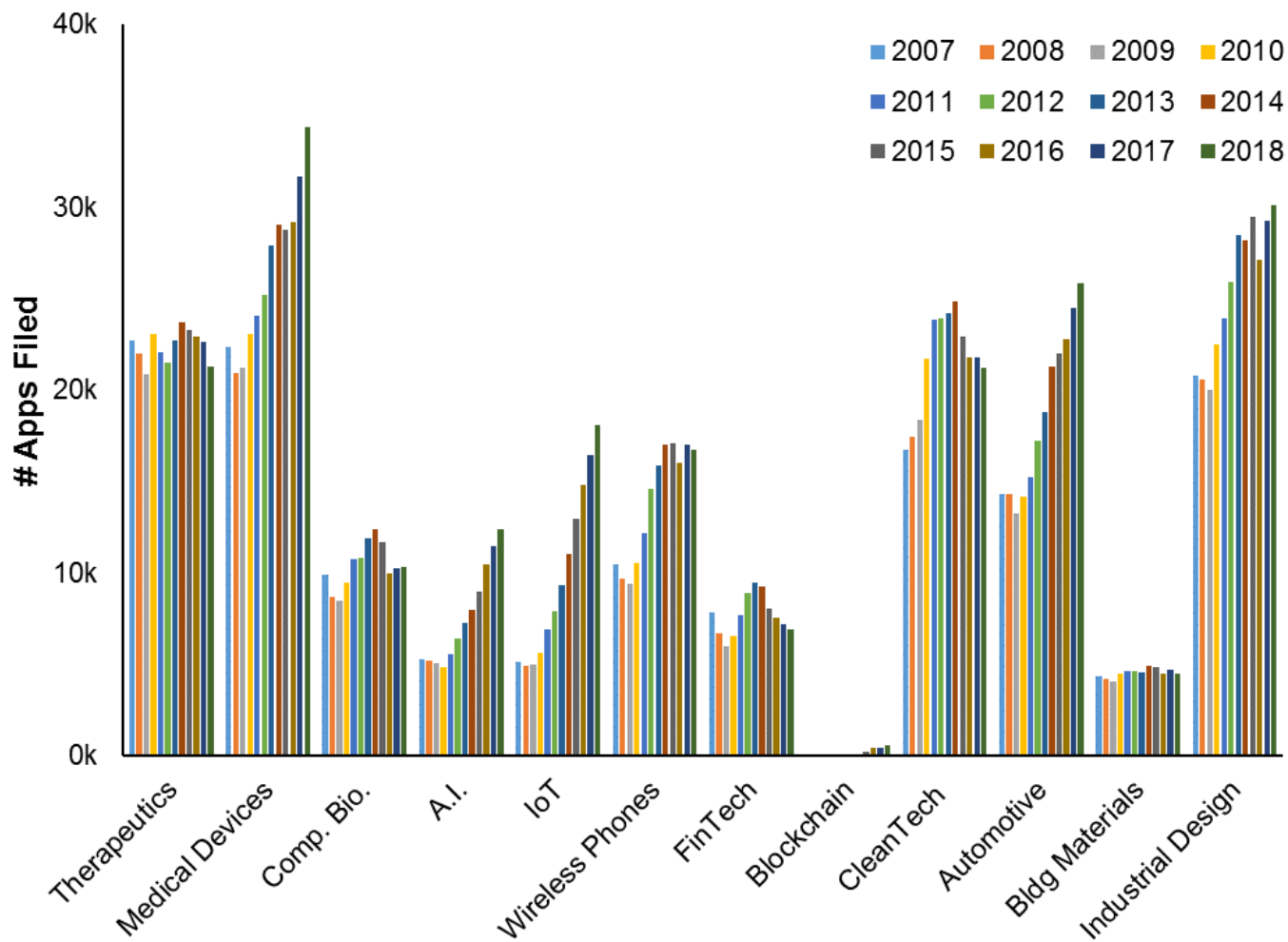




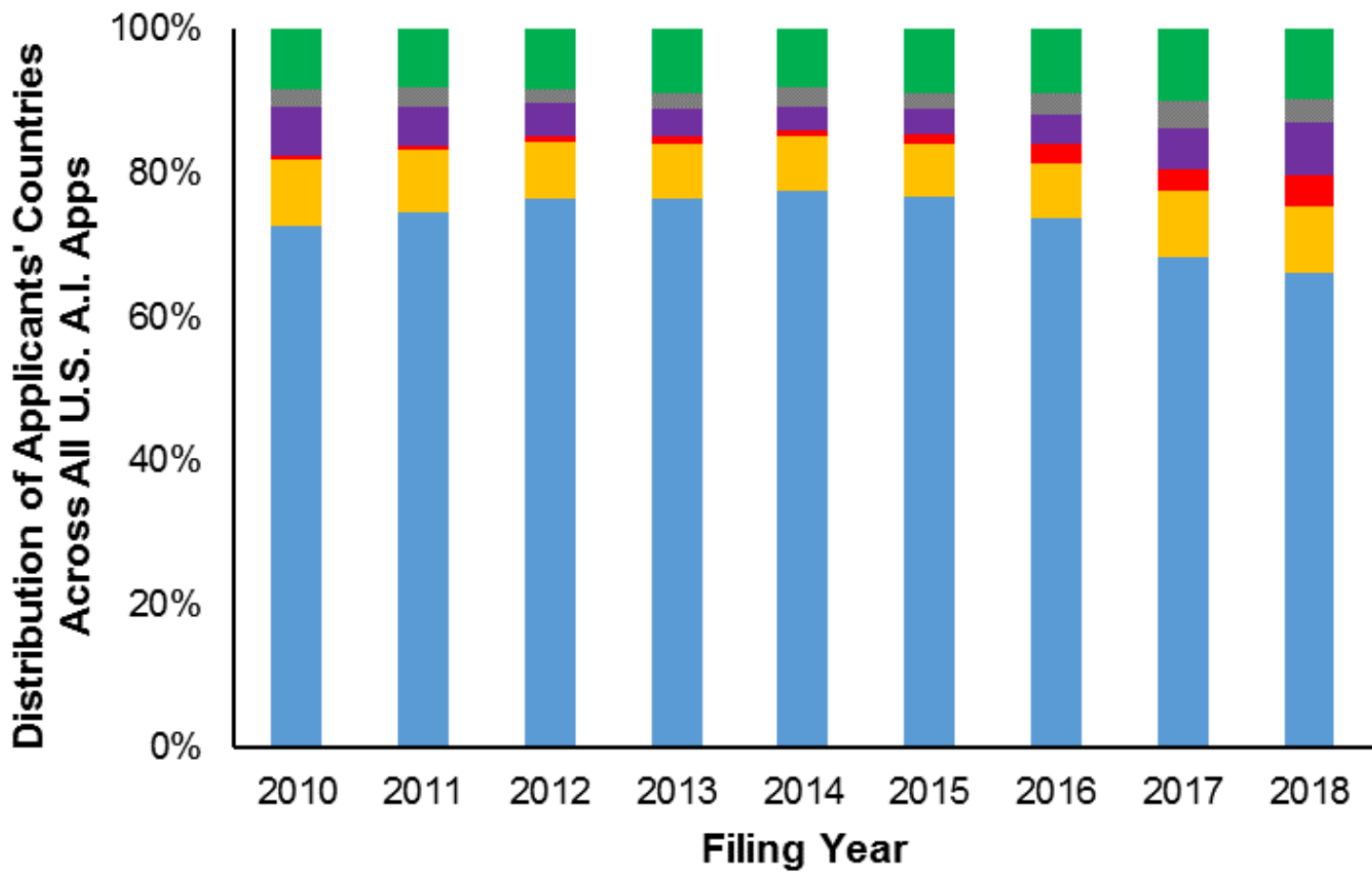
# Patenting A.I. Innovations in the U.S.

**Kate Gaudry**

# A.I. Filings in the U.S. are Dramatically Increasing

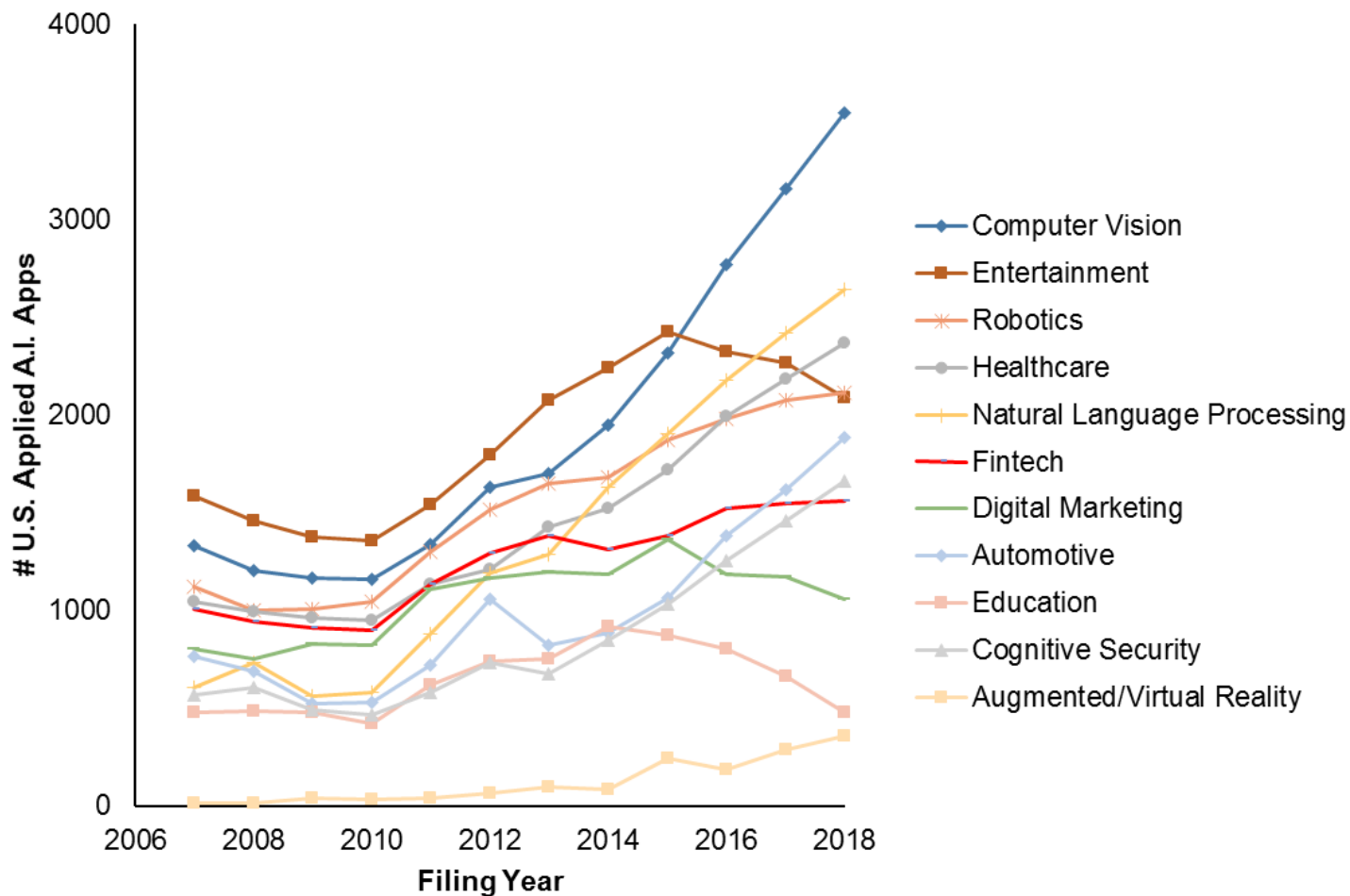


# Proportional Increase in A.I. Filings Most Pronounced for Non-U.S. Applicants

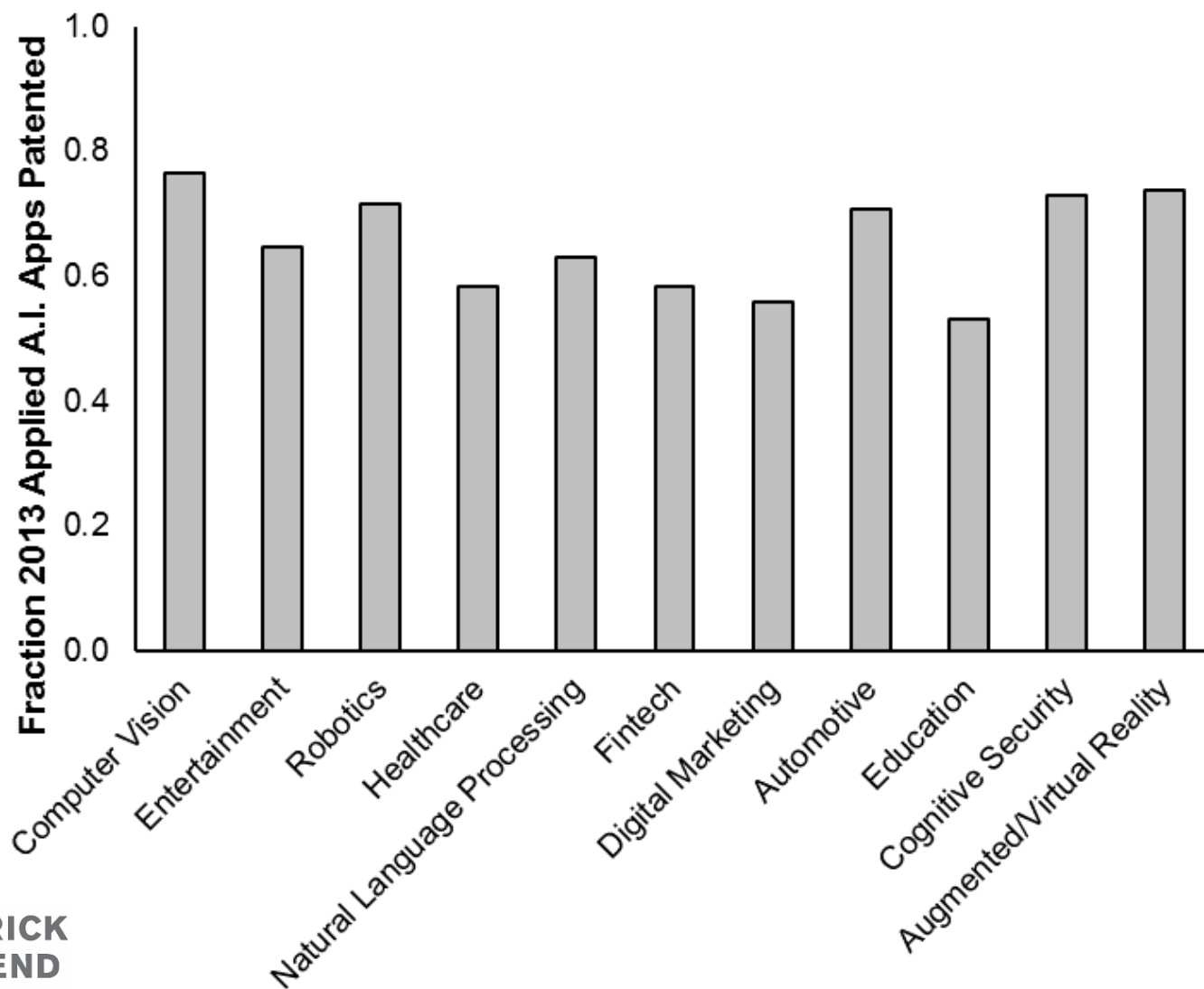


■ U.S. ■ Europe ■ China ■ Japan ■ South Korea ■ Others

# But A.I. Filing Trends Depend on Application Area



# Perhaps Because Prospects of Patenting A.I. Innovation Depends on Application Area



# U.S. Eligibility Requirement has been Affecting Patenting Prospects

- U.S. law indicates that any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof can be patented (35 U.S.C. § 101)

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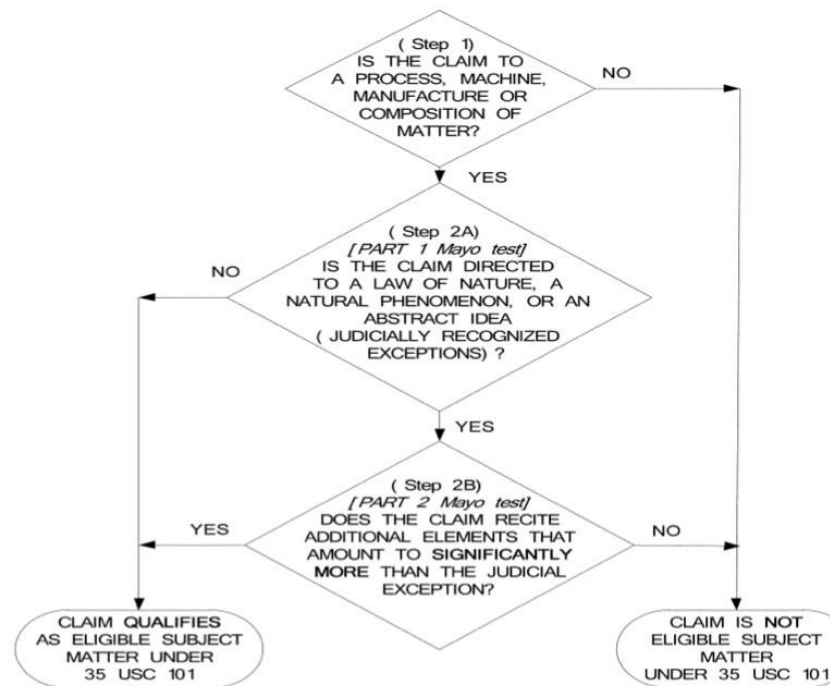
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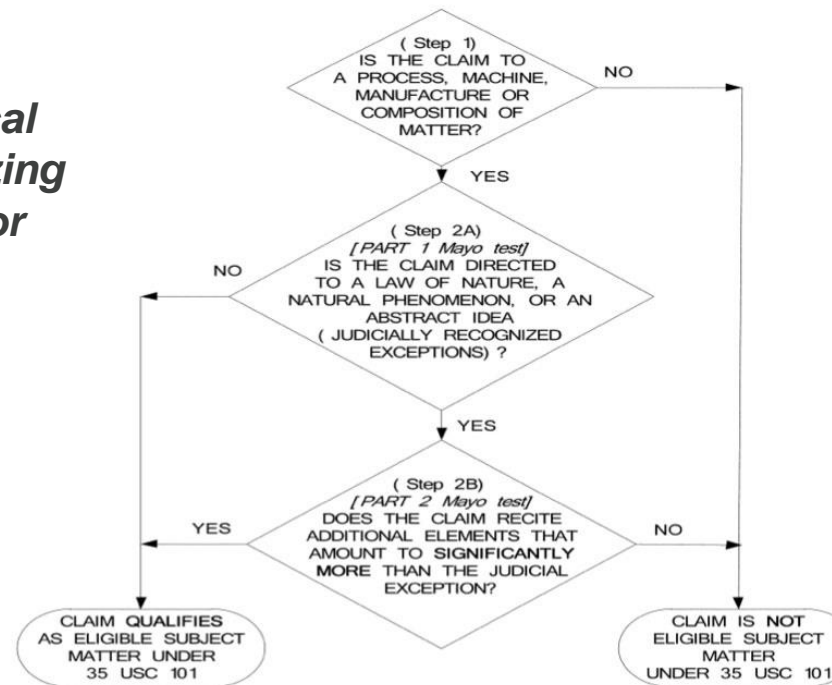
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  - Recent effort (2014):

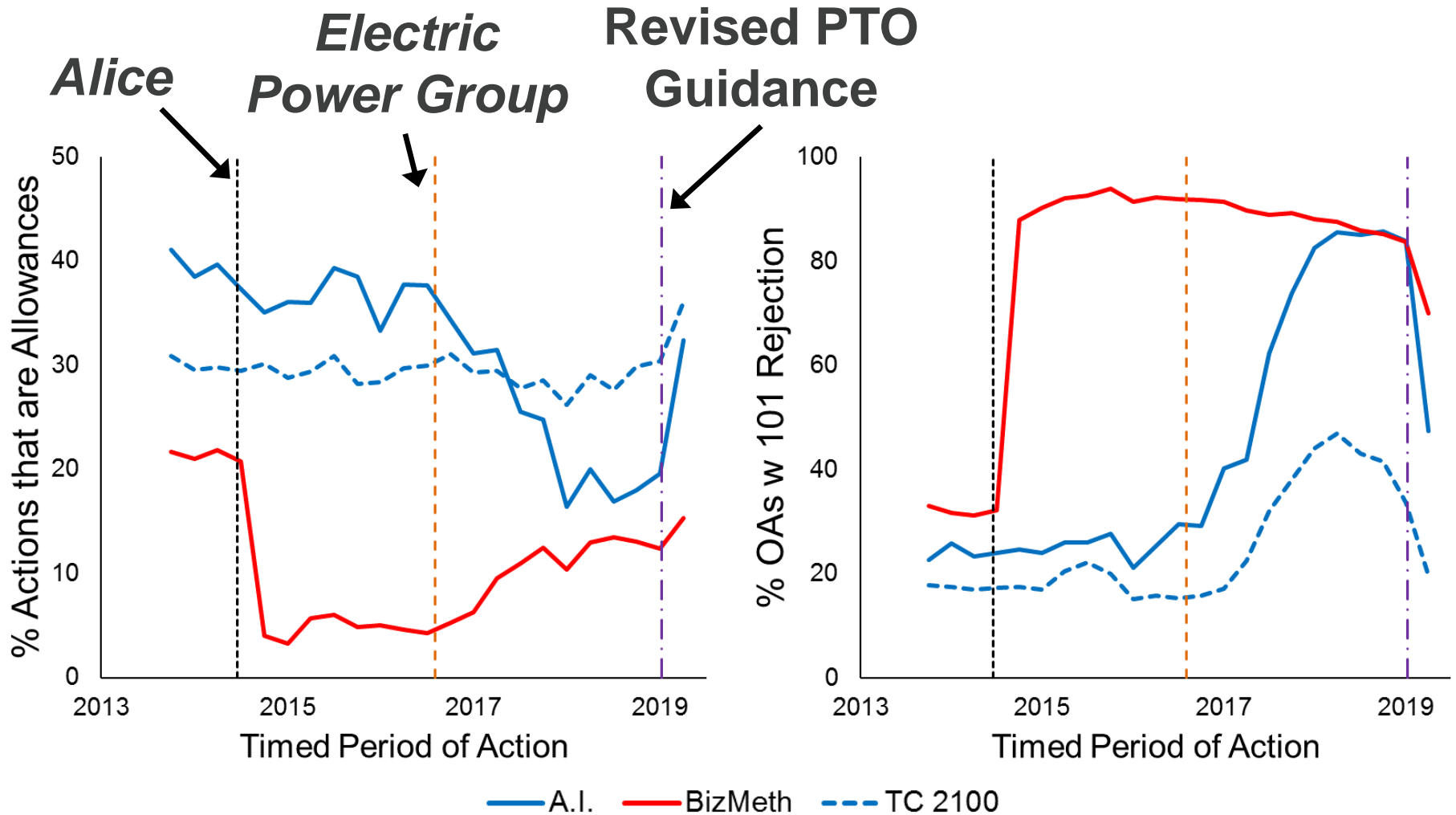


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- Unless the innovation is an abstract idea, law of nature, natural phenomena or product of nature (case law)
  - Each of these categories are somewhat dynamically defined and dynamically applied (case law)
  - **More recent effort (2019):**
    - **Abstract idea must be: mathematical concept, certain method of organizing human activity or mental process or other exception approved by TC Director**
    - **AND, if abstract idea is integrated into practical idea = eligible**
    - **Examiner not to issue eligibility rejection unless more likely than not that claim is ineligible**



# Patenting Prospects of Software/A.I. Innovations has been Volatile in the U.S.



See: Gaudry K, Hayim S. "Artificial Intelligence Technologies Facing Heavy Scrutiny at the USPTO" *IPWatchDog*. 2018.

# In the U.S., Inventors must be Human

- U.S. patent statutes do not specifically require that inventors be human. However:
- Legislative history and filing requirements (e.g., provision of “family name”) are consistent with this requirement
- U.S. case law requires that inventors be individuals (e.g., not corporations)
- I.P. is a personal property right in the U.S.
- *Consider: purpose of U.S. patent system is to promote innovation and disclosure*

# Conclusions

- A high degree of uncertainty remains regarding which types of artificial-intelligence innovations can be patented in the U.S.
- As of yet, no separate rules/laws distinguish patentability of A.I. innovations from other software innovations
- So as the U.S. struggles to determine which software inventions are sufficiently non-abstract to be patent eligible, patenting A.I. inventions is being affected
- The fact that A.I. patent applications are assigned to many parts of the U.S. patent office further complicates achieving consistent training and applicant predictability