

Changing Characteristics of Innovation

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Presentation overview

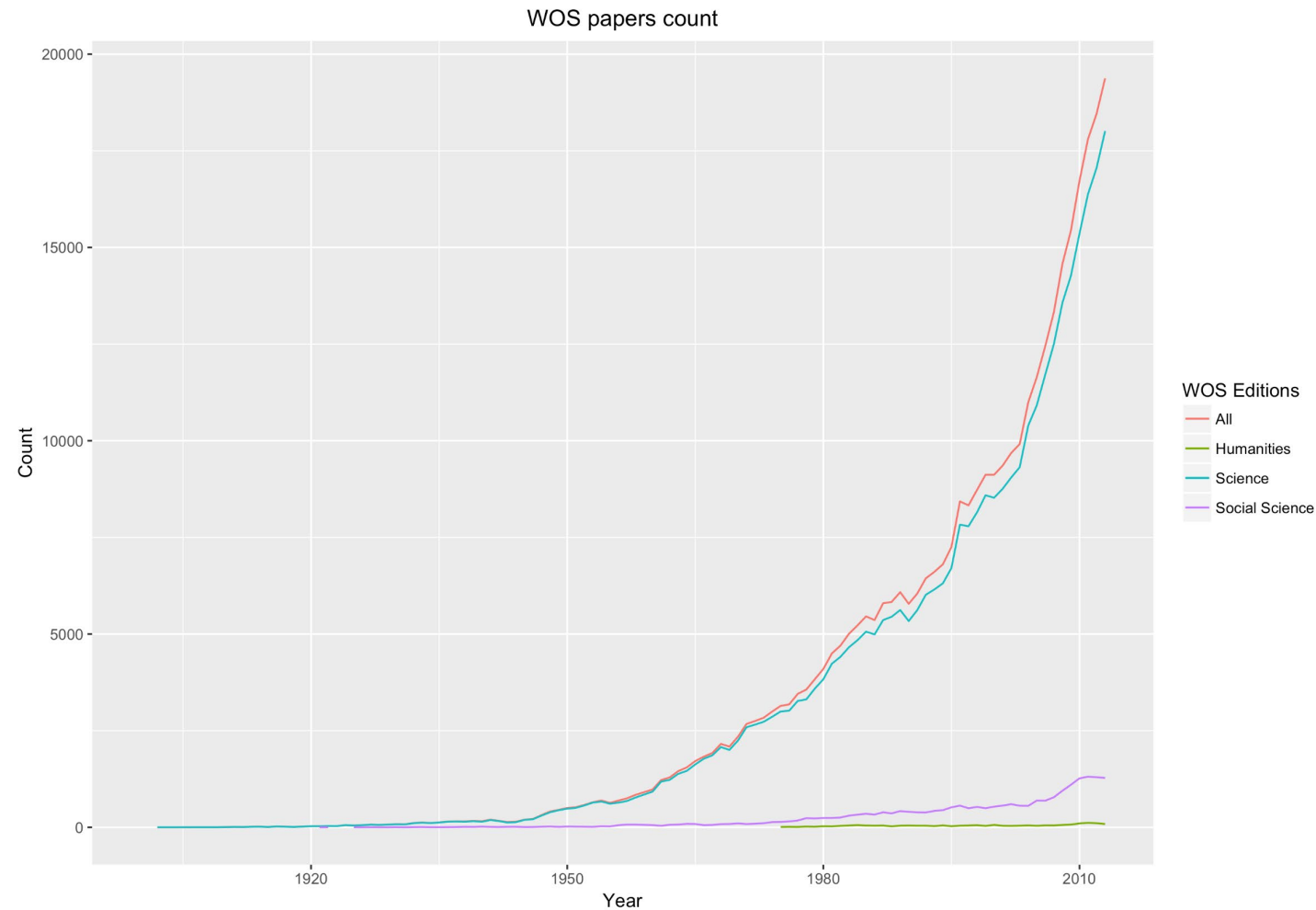
- Motivation
- Research Question
- CD Index
- Preliminary Results
- CADRE
- Q&A



Motivation

- **Past research has shown that innovation (scientific research) is becoming harder to do or do well** (e.g. Foster, Rzhetsky & Evans, 2015; Uzzi, Murkherjee, Stringer & Jones, 2013; Jones, 2009)

Research Question: Growth in Science



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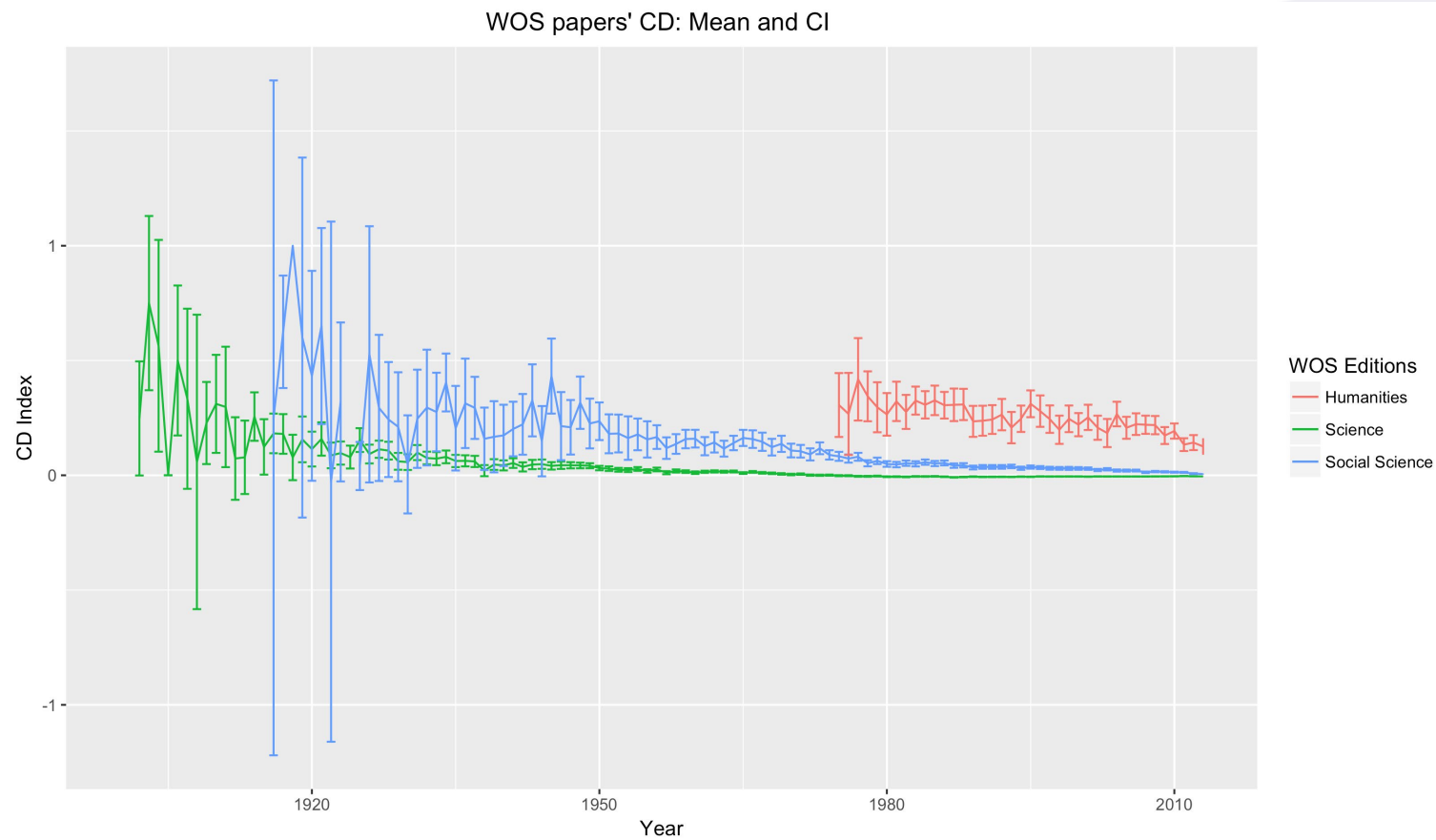
. Is innovation getting harder
or is innovation changing
in nature?



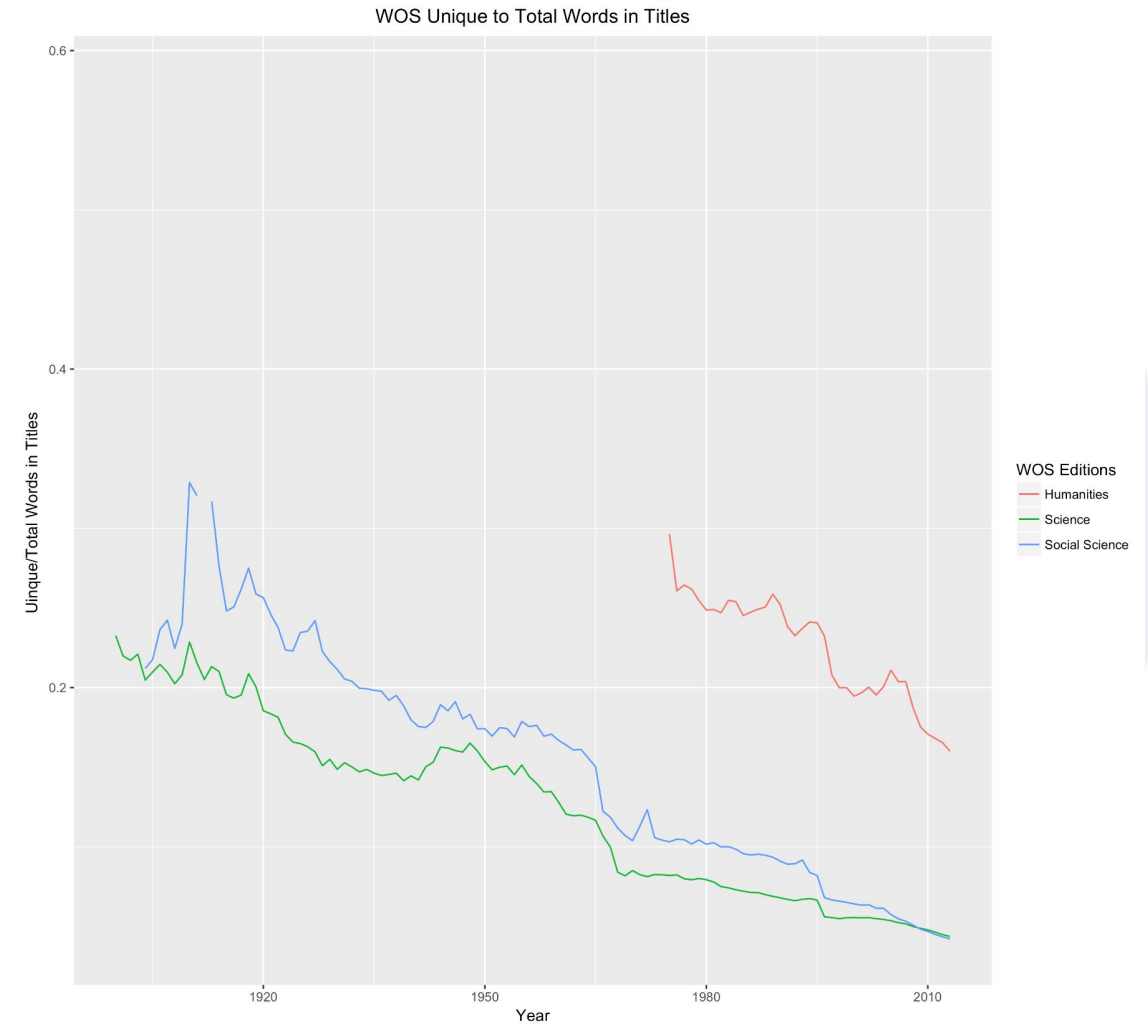
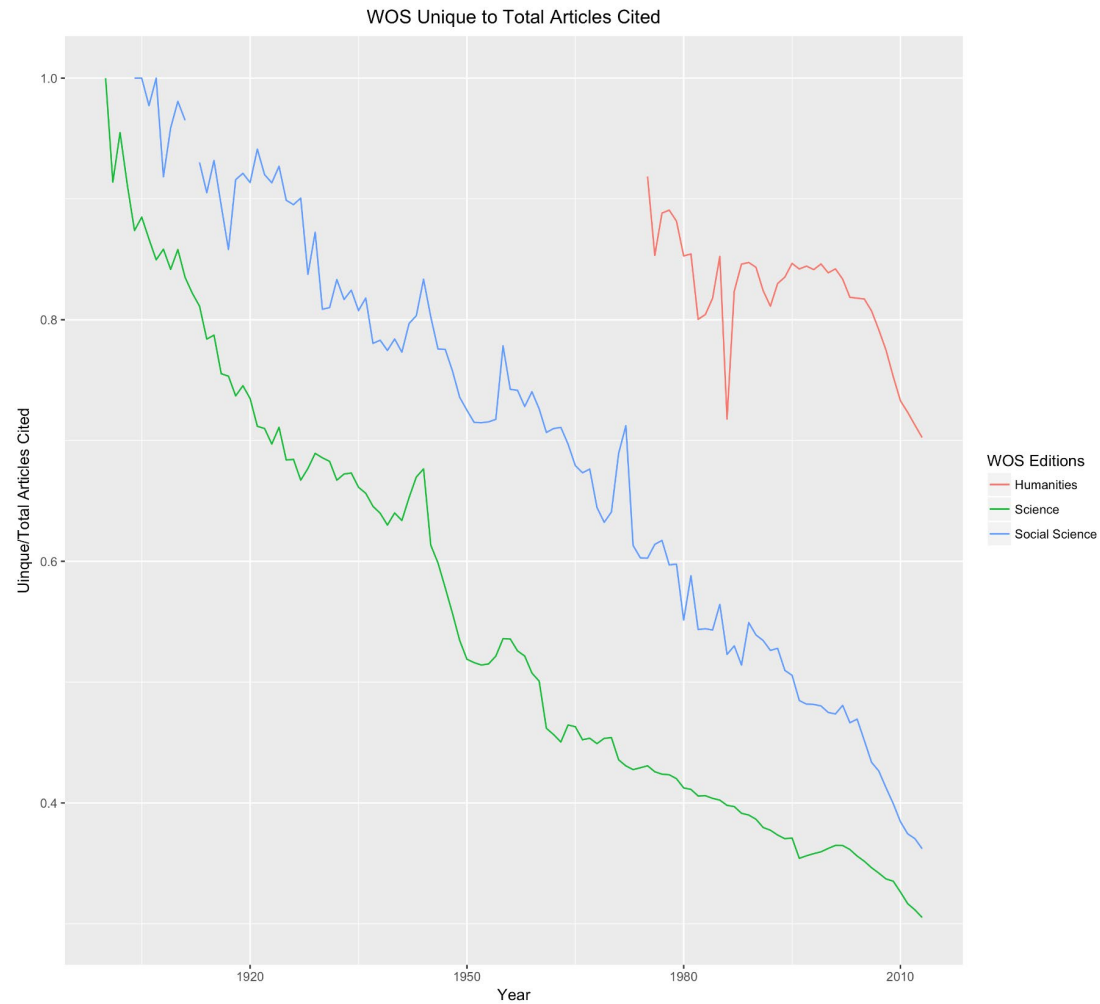
CD Index (Funk & Owen-Smith, 2016, Management Science)

- Bibliometric measure that distinguishes:
 - Consolidating innovations ($-1 < CD < 0$)
 - Destabilizing innovations ($0 < CD < 1$)
- Apply to SciSci context and explore the changing nature of science

Preliminary Results



Preliminary Results



CADRE

- Convenient access to WOS database (HPC cluster, Spark, Hadoop)
- Research asset commons:
 - Author name-disambiguation
 - CD index computation
- Textual data from papers' abstracts and titles in MAG



Questions?

Changing Characteristics of
Innovation

