Exploring Disciplinarity

Modeling and Mapping Science Workshop Panel

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Conceptualizations

Social
Communicative
Cognitive
Methodological
Institutional
Educational

“a recognized community of researchers”
“established manner for communication their findings”
“coherence of content”
“finite set of methods of inquiry”
“group of institution that persist and remain stable over time”
“a system for perpetuating the discipline by training new practitioners”
Operationalizations

• Units
  • Person
  • Paper
  • Journal
  • Department
  • Degree
  • Institution

• Methods
  • Word co-occurrence
  • Topic modeling
  • Citation/co-citation/bibliographic coupling
  • Collaboration/co-authorship/co-worker networks
  • Hybrid

• Approaches
  • Top-down
  • Bottom-up

The disciplinary citation network can be considered as an indicator of specificity and therefore disciplinarity. Leydesdorff and Rafols, 2010

Academic Genealogy
Interdisciplinarity in LIS

Top imported disciplines

Advisors

Committee members
Advisor trends

Committee member trends
The vision

1. Improved connections between conceptualizations and operationalizations in science of science

Large-scale utilization of academic genealogy as an indicator for the birth, maturation, and interaction of disciplines

2. Mapping of doctorates and transfer of people between institutions and countries by time and discipline