Effects of specialization in scientific trajectories

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Context

Many studies have been reporting for years the high increase on the number of authors per paper and the need for larger and larger teams.

Among other reasons, 'Mode 2' production of knowledge, need to access resources or recombination of knowledge to tackle grand challenges are among some of the potential explanations given

Studies are reporting that a distribution of labour is taking place whithin the scientific enterprise. If so, this jeopardizes traditional individual research assessment schemes.

Some ideas from the literature

- Contribution statements
- Assessment of research teams
- Throwing everything off board

First two, nice in theory, difficult in practice. Third... not really helpful.

Main goal and research questions

Identify scientific profiles of individuals based on their contribution in their complete publication history and effects on longetivity, citation, productivity, etc.

- Is there a relation between traditional bibliometric variables and contribution type? e.g., author position, seniority, etc.
- Can we predict contribution type based on such bibliometric variables?
- Do roles exerted by researchers in publications lead to diversity of profiles?
- Are specific roles being actually neglected by publication and citation-based assessments?

Slide with Plot

