Karine REVET (GEM, USMB IREGE)

Balancing the costs and rewards of multidisciplinary research in individual scholarly production: The role of collaboration networks

Multidisciplinary research is known to enhance the productivity of scientists only if they are able to deal with particularly challenging epistemic, institutional, and normative barriers. We argue that specific collaboration network configurations, particularly strong ties and brokerage, are instrumental to address these challenges and ultimately succeed with a multidisciplinary research strategy. Using bibliometric data from the ISI Web of Science on 471,045 articles from 825 peer-reviewed scientific journals published over a 17-year period, we show that succeeding in a multidisciplinary strategy is more likely for scientists with high brokerage. Reversely, brokerage is detrimental to a specialization strategy. Moreover, the level of multidisciplinarity influences productivity only for scientists with weaker ties.

Key words: Multidisciplinary research – Knowledge production – Scientific collaboration – Ties strength – Brokerage – Social network analysis

Co-authors: Mustapha BELKHOUJA (GEM), Barthélémy CHOLLET (GEM, USMB IREGE)