

Mark McCabe
Georgia Institute of Technology
School of Economics

Christopher Snyder
Dartmouth College

Online Access and Scholarly Communication

Over the past decade, the digitization of scholarly journal content and the emergence of online access have transformed how scholars communicate and evaluate their research results. As in most information goods markets, this migration to the web has upset existing business models, created new opportunities, and raised new questions. The objective of this project is to evaluate the following questions: what is the impact of online access on journal citation rates? Are the benefits greater for newer or older content? Are the effects discipline-specific? Which online "channels" have the greatest impact? To address these questions we examine citation rates to articles published in 300 high-quality journals, divided evenly across general science/biology, economics/business and history. Within each discipline, a fraction of the titles are "early digitizers" and the remaining "control" titles appeared online at a later date. Given these natural experiments, we use citation data for the period 1980-2005, as well as detailed information about when content was placed online, and in which channels, to address the question posed above. We employ an econometric technique known as "differences-in-differences."

We expect that our analysis will serve at least two broad purposes: 1. a contribution to the economics and social sciences literature on information goods, two-sided markets, and the relationship between research and economic growth. 2. a useful input in various ongoing private and public decisions related to the online availability of scientific and scholarly information.

Key Words: Scholarly Journals, Online Access, Citation Rates, Information Good