

NBER Digitization Tutorial Application

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CONTACT INFORMATION

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COURSE OF STUDY

I'm currently enrolled in the PhD program in the MIT Sloan School of Management. My affiliation is with the "Technological Innovation, Entrepreneurship and Strategic Management (TIES)" group. I began the program in June, 2010 and expect to graduate in 2016. At TIES, my main advisor is Scott Stern, and other members of my committee include Pierre Azoulay (MIT Sloan TIES), Catherine Tucker (MIT Sloan Marketing) and Heidi Williams (MIT Economics).

I completed my qualifying exams and orals in June 2012, and also submitted my part 2 paper – *"Does Copyright Affect Reuse? Evidence from the Google Books Digitization Project"* at this time. A draft of this paper is available at web.mit.edu/nagaraj/files/copyright_nagaraj.pdf.

My training is primarily in empirical and applied econometrics with a concentration in Industrial Organization (IO). The following is a sample of my courses that I have taken over the last four years:

- Microeconomic Theory (Parts 1 and 2)
- Econometric Theory
- Applied Econometrics
- Statistics and Probability Theory
- Industrial Organization (Parts 1 and 2)
- Economics of IT in Markets and Organizations

GENERAL RESEARCH INTERESTS

Broadly, my research is at the intersection between the Economics of Innovation and Digitization. I'm interested in studying the role of innovation policy and intellectual property on the production of digital content and its implications for welfare. Through this work, I hope to inform the design, management and public policy of digital systems.

In my job-market paper, *The Private Impact of Public Maps— NASA Landsat Imagery and Gold Exploration*, I'm looking at the value of digital public goods for industry-level innovation. My context is the arrival of satellite imagery in the gold exploration industry from the NASA Landsat program. Using quasi-random variation in the timing of the mapping effort, caused by technical failures in mapping and cloud-cover in imagery, I find that publicly provided digital information significantly affects innovative outcomes. Mapped regions were twice as likely to report the discovery of a new gold deposit, and smaller, entrepreneurial firms were more likely to benefit as compared to larger firms. These findings provide novel evidence on the role of public digital data on innovation and entrepreneurship at the industry level.

My part-2 paper, *"Does Copyright Affect Reuse? Evidence from the Google Books Digitization Project"* provides causal estimates of the impact of copyright on the reuse of digital information. Specifically, I ask, what benefit did the Google Books digitization project provide to Wikipedia and how were these benefits affected by copyright law? My estimates suggest that Google Books was beneficial to the quality of Wikipedia, but that these benefits were significantly lower for Wikipedia pages affected by copyright. These negative effects were concentrated for the reuse of images rather than text and for topics that had few alternate sources of information. These differences also had a negative impact on traffic to affected pages (a drop of about 30-80%). Broadly the paper shows that availability and quality of digital information is endogenous to the intellectual-property institutions, and IP could be an important tool for digitization policy.

Going forward I'm hoping to further shed light on important policy questions in the area of innovation in digital markets.