

Levelling the Playing Field?

Knowledge Production in the Digital Age

Maximilian Mähr* Jens Oehlen†

August 23, 2022

Abstract

Most scientific papers are not freely available—even though access to existing knowledge is crucial for pushing the research frontier. In this paper, we quantify the effects of lifting access restrictions on knowledge creation focusing on Sci-Hub. Sci-Hub is an online platform founded in 2011 in Almaty, Kazakhstan, that offers access to a majority of scientific articles worldwide and for free. Using 300 million geo-coded download requests and the near-universe of scientific articles we build a global panel of sub-national units over two decades. Relying on the website’s diffusion through social networks we employ an instrumented difference-in-differences strategy. We document that Sci-Hub has significantly and meaningfully changed consumption patterns of existing scientific works as measured by citations of (previously) closed-access publications. Yet, we do not find that Sci-Hub is associated with producing higher-quality publications.

Keywords: : Science of Science, Open Access

JEL Codes: O34, O36

*University of Mannheim, maximilian.maehr@gess.uni-mannheim.de

†Stockholm University, jens.oehlen@su.se