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Recruiting Committee

Re: Reference for Michael Kummer

Vienna, November 15, 2014

Dear colleague,

I am writing in support of Michael Kummer's application for a position in your department. Michael is a researcher in the Information and Communication Technologies Department at the Centre for European Economic Research (ZEW) in Mannheim. In the last years he was not only working as a researcher at ZEW, but he was also working towards his dissertation at the Centre for Doctoral Studies in Economics (CDSE) at the University in Mannheim. I have known Michael for four years now. I mention Michael's affiliation, because it is quite unusual that somebody manages to complete a doctoral course program including coursework and at the same time worked as a researcher with a heavy workload and the responsibility to raise money to pay for his salary. Consequently, Michael brings with him more experience and a broader skill set than a typical PhD student has. In the past years he has not only managed to produce high-level research for his dissertation but also shown very strong management skills. Michael works in empirical Industrial Organization with a strong focus on IT related questions.

Let me describe his research in more detail. In his job market paper, 'Spillovers in Networks of User Generated Content,' Michael identifies spillovers in page-views in content provision by exploiting 'natural experiments'. The idea is to quantify the 'value of a link' in terms of page views using the Wikipedia network. The difficulty in answering this question is that the network structure is endogenous: Better or more relevant articles are more likely to be linked to a 'main article.' Michael gets around this problem by exploiting neat experiments on the Wikipedia network. He uses Wikipedia's 'today's featured' articles. Featured articles are selected by a group of established Wikipedia editors. Importantly, the set of articles to be featured is chosen by the editors, but the day on which a specific article exactly becomes featured, is apparently a random, which Michael also demonstrates. Michael then uses articles selected as featured, but displayed on a different days as a control group. The underlying necessary identification assumption is that the network is stable in the short run, which enables him to employ a difference-in-difference approach to quantify the effect on views and edits of neighboring pages, thus measuring the effect of an additional view of a linked page. Michael then incorporates these 'shocks' into the classic linear-in-means model (Manski and others), and shows how the structural spillover parameter can be related to the reduced form difference-in-difference estimate. In particular, he shows how bounds can be estimated just using the local difference-in-difference

estimates, although the entire network cannot be mapped into a matrix (which is the case either because of limited information or because your computer cannot handle a matrix that maps the entire Wikipedia network). As a second exercise, Michael uses 'Large Events' (like airplane crashes, earthquakes etc.) on the number of views as well as content provision. Overall, this paper contains admirable data work (collecting information from the gigantic Wikipedia database not only in the network dimension but also in a time dimension), as well as a well thought out and credible identification strategy. In addition, it is a very nice exercise of showing how careful reduced form estimation can inform us about deep structural parameters of an underlying model. In summary, this is a very impressive empirical exercise and an important contribution to the empirical literature on networks.

Michael has already published a paper entitled 'Market Structure and Market Performance in E-Commerce' in the European Economic Review jointly with Hackl, Winter-Ebmer, and Zulehner. Here the authors attempt to explain markets earned on a product in an online market with changes in the number of firms offering this product on the specific platform. The authors deal with the endogeneity of the number of firms by instrumenting for a firm's listing decision with the past listing decision. Instruments for the number of firms and hence credible inference on the relationship between market structure and performance is hard to find in the literature. My understanding is that Michael's contribution to this paper has been substantial, not only in acquiring the funding and handling the data work (again a large database of click behavior, this time on a price comparison site), but also in the empirical analysis.

More recently, Michael has worked on a number of related issues, all involving online markets. This includes descriptive work on the relative stickiness of 'focal' prices like 99 Cent prices. He also has a paper examining the role of personal information requests by mobile phone apps, and how that relates to actual downloads by users, to see to what extent privacy concerns by consumers actually do play a role in demand.

Michael has produced a very nice set of papers combining new data with appropriate statistical analysis. There is an impressive data collection effort behind this work. Michael is obviously very hard working, but creative and importantly does not shy away from exploring novel and difficult approaches to answering questions on online networks and markets, which have not been studied yet to a large extent, and hence no state of the art toolbox yet exists. I encourage not only economics departments looking to hire in empirical micro/IO, but also business schools, in particular when looking for somebody working on Information Systems and ICT related issues. Please contact me if you have further questions.

Sincerely,

Philipp Schmidt-Dengler