ONLINE Ljubljana Doctoral Summer School 2022

Quantitative approaches to literature reviews: bibliometric methods and topic modeling (ECTS: 4)

11 – 15 July

9.00 – 13.00 (CEST, Ljubljana)

Course leader:
Zupic Ivan, Goldsmiths, University of London, United Kingdom

Aims of the course:

The purpose of this intensive course is to train researchers in using advanced quantitative methods for literature reviews. Specifically, this course will introduce bibliometric methods (e.g. co-citation analysis, bibliographic coupling) and topic modeling to participants using a combination of lectures and hands-on workshops.

Bibliometric methods use citation as a measure of communication. Aggregating and analyzing citation data from publications in a specific field allows researchers to base their literature review on the aggregate opinions of other scholars working in the field expressed through citing literature. This kind of analysis is introducing quantitative rigor into literature reviews.

Topic modeling is a set of machine learning methods for analyzing text. The algorithm is able to extract thematic information from large collections of text documents that would be unfeasible to read by researchers. It is helpful to think about topic modeling methods as principle component analysis for text data. The most used topic model - Latent Dirichlet Allocation (LDA) and its extensions will be introduced to workshop participants. These methods are useful as a quantitative aid to literature reviews, but can also be used in other research projects on any kind of text data: company document archives, social media, press articles and more. Topic modeling has only recently started to be used in management and economics research, which makes it a useful new tool in any researcher's arsenal.

Course syllabus:

- Introduction: Quantitative approaches to literature reviews
- Bibliometric methods workshop
- Intermediate bibliometric methods
- Analyzing text: text mining and topic modelling
- Writing and publishing quantitative literature reviews

This course will use a combination of lectures and hands-on workshops.

List of readings:

- Antons, D., Joshi, A. M., & Salge, T. O. (2018). Content, Contribution, and Knowledge Consumption: Uncovering Hidden Topic Structure and Rhetorical Signals in Scientific Texts. Journal of Management, 45(7), 3035–3076. https://doi.org/10.1177/0149206318774619

- Batistič, S., Černe, M., & Vogel, B. (2017). Just how multi-level is leadership research? A document co-citation analysis 1980–2013 on leadership constructs and outcomes. The Leadership Quarterly, 28(1), 86–103. https://doi.org/http://dx.doi.org/10.1016/j.leaqua.2016.10.007

- Devinney, T. M., & Hohberger, J. (2017). The past is prologue: Moving on from Culture's Consequences. Journal of International Business Studies, 48(1), 48–62. https://doi.org/10.1057/s41267-016-0034-z

- Hannigan, T. R., Haans, R. F. J., Vakili, K., Tchalian, H., Glaser, V. L., Wang, M. S., … Jennings, P. D. (2019). Topic Modeling in Management Research: Rendering New Theory from Textual Data. Academy of Management Annals, 13(2), 586–632. https://doi.org/10.5465/annals.2017.0099

- Hopp, C., Antons, D., Kaminski, J., & Salge, T. O. (2018). The Topic Landscape of Disruption Research—A Call for Consolidation, Reconciliation, and Generalization. Journal of Product Innovation Management, 35(3), 458–487. https://doi.org/10.1111/jpim.12440

- Kobayashi, V. B., Mol, S. T., Berkers, H. A., Kismihók, G., & Den Hartog, D. N. (2017). Text Classification for Organizational Researchers: A Tutorial. Organizational Research Methods, 21(3), 766–799. https://doi.org/10.1177/1094428117719322

- Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. Organizational Research Methods, 18(3), 429–472. https://doi.org/10.1177/1094428114562629

Examination:

Students needing course credit for their PhD studies will have to submit an extended abstract (1500-2000 words) with preliminary quantitative analysis (bibliometric or topic modelling) of their chosen research field.

Course leader's biographical note:

Ivan Zupic is a Lecturer in Entrepreneurship at Institute of Management Studies, Goldsmiths, University of London. He received his Ph.D. degree in Management and Organization from the School of Economics and Business, University of Ljubljana. His research interests include digital economy, high-growth firms, entrepreneurial ecosystems and research methods. His research has been published in peer-reviewed journals such as Organizational Research Methods, Management Decision and European Management Journal. Before entering academia he worked as a consultant in the IT industry and as a journalist/photographer in the media.