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| Course Code & Title | LISS246 Using Big Data for your PhD Dissertation: An Introduction to Machine Learning and Natural Language Processing | | | | |
| Convenor(s) | Dr Juan Grigera, Department of International Development, King's College London | | | | |
| Institution | KCL | | Department | LISS DTP | |
| Academic Year | 2021-22 | | Term | Summer | |
| Number of sessions | 1 | Research Platform | Digital & Archival Research Methods (DAR) | Length of Session(s) | 3 hours |
| Day, Date | | Start : End | | Room Location | |
| Thursday 26 th May 2022 | | 10:00-13:00 | | Via Zoom | |
| Enrolment Links: | Click here to register for this course on Skillsforge. You may be prompted to log in. | | | | |

Course Description:

This is intended as a crash course on the possibilities opened by Big Data processing with Natural Language Processing (NLP) and Machine Learning (ML) approaches within the social sciences. As a 3-hour workshop, it will give a broad overview of some uses and challenges, deconstruct some myths around the foundations and discuss the uses of these methods beyond purely 'quantitative' approaches. The course will explain how NLP and ML can inform and support traditionally 'qualitative' research designs and give pointers towards how to use these.

Reading List:

Lazer, David, Ryan Kennedy, Gary King, and Alessandro Vespignani. 'The Parable of Google Flu: Traps in Big Data Analysis'. *Science* 343, no. 6176 (14 March 2014): 1203–5. <https://doi.org/10.1126/science.1248506>.

Schutt, Rachel, and Cathy O'Neil. *Doing Data Science, First edition*. Beijing ; Sebastopol: O'Reilly Media, 2013. Chapters 1 to 3

Atefeh Farzindar and Diana Inkpen, *Natural Language Processing for Social Media, Synthesis Lectures on Human Language Technologies 30* (San Rafael, Calif.: Morgan & Claypool, 2015). Chapter 1

Eligibility:

This is open to all Social Science students. It will be particularly useful to those at the early stages of their PhD to assess whether to incorporate some of these approaches to their research project. Quantitative and qualitative approaches alike could benefit from the module.

You must be a PhD student registered at King's College London, Queen Mary or Imperial College.



London Interdisciplinary Social Science Doctoral Training Partnership

Advanced Research Methods in Social Sciences

Pre-course preparation:

Students are invited to reflect on the possible uses of these approaches on their dissertation, so that we can discuss these during the workshop.

Number of students:

Minimum number required to run: 4 students

Maximum number of places available: 30 students