

ARTNeT Advanced Workshop on Machine Learning and Text Mining for Trade Policy Analysis with R

29 Mar – 12 Apr 2021 (virtual)

Course description

This online course is designed to introduce participants to the basic techniques involved in machine learning and text mining, with applications focusing on international trade policy. The short course will emphasize developing an intuitive understanding of the tools involved, so that participants can identify future applications in their own work. It is a hands on course, with participants expected to spend considerable time analyzing real-world data. All participants must have successfully completed ESCAP's free online course on R for trade analysis (available here: <https://r.tiid.org/>) to be eligible. Participants should also have some background in econometrics and statistics, typically to graduate level.

The course consists of three modules. For each module, participants should first watch the pre-recorded lecture, covering key concepts and demonstrating their application in R. They should then work with replication files to ensure they can reproduce and understand all results in the demonstration. Next, they should prepare answers to discussion questions designed to develop intuition. They should then prepare answers to a short problem set using R and supplied datasets. The group will then meet for interactive sessions in which questions can be asked on each of the lecture and demonstration material, and discussion questions and problem sets can be analyzed.

About the course instructor

The course has been developed and will be delivered by Ben Shepherd, the Principal of Developing Trade Consultants (DTC). Ben is a trade economist and international development consultant. He has worked on a wide range of trade and development issues with organizations such as the World Bank, the OECD, the Asian Development Bank, the Inter-American Development Bank, the United Nations, and the Asia-Pacific Economic Cooperation. He specializes in providing policy-relevant research, as well as capacity-building seminars for researchers working in trade and development. Ben's particular areas of expertise include (1) Trade Policy, (2) Global Value Chains, (3) Trade Facilitation and Logistics and (4) Trade in Services. Prior to starting DTC, Ben was a Postdoctoral Research Associate at Princeton University's Niehaus Center for Globalization and Governance. He holds a Ph.D. in economics from Institut d'Etudes Politiques de Paris (Sciences Po).

Special note

Please note that places are limited and the selection of participants will be based on the quality of submitted applications. We kindly ask you to commit to fully attending each lecture (including paying attention), as well as allocate time for self-studying in between lectures, completing assigned tutorials and viewing pre-recorded material. **If you are not sure you will be able to fully commit to the course, please do not apply.**

Tentative Programme¹

All time are in Indochina/Bangkok Time (UTC+7)

29-Mar-2021 8:00 – 9:30 **Course overview**

Pre-recorded **Lecture 1:** Introduction to Machine Learning

Pre-recorded **Lecture 2:** Introduction to Text Mining

Pre-recorded **Lecture 3:** Introduction to Text Based Prediction and Classification

7-Apr-2021 8:00 – 9:30 **Interactive hands-on session 1** [w/ Q&A and discussion]

8-Apr-2021 8:00 – 9:30 **Interactive hands-on session 2** [w/ Q&A and discussion]

12-Apr-2021 8:00 – 9:30 **Interactive hands-on session 3** [w/ Q&A and discussion]

¹ For the latest programme, please go to <https://www.unescap.org/events/2021/artnet-advanced-workshop-machine-learning-and-text-mining-trade-policy-analysis-r>