100 years of ICLS

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International
Conference of
Labour Statisticians

11–20 October 2023
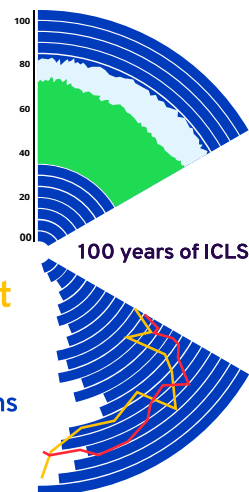
21st International Conference of Labour Statisticians

Side event: Updating occupational classifications using machine learning

18th of October 2023 - 13:00 to 14:30
Auditorium, R2

Interpretation will not be available. Refreshments will be served outside the auditorium.

Panelists

- Lara Badre, Senior Statistician, ILO
- Daniel Sim, Deputy Director (Data Collection), Manpower Research and Statistics Department, Ministry of Manpower, Singapore
- Shutong Ding, Statistical Knowledge Management Officer, ILO
- David Niculcar, Chief, Departamento de Estadísticas, Chile
- Ng Bin Shen Lucas, Research and Statistics Department, Ministry of Manpower, Singapore

Link for online participation

https://ilo-org.zoom.us/j/93437275802?pwd=WGxxYXZHYVZrbkxwVDg3MDJVdU8yZz09

Description of the event

Considering the rapid technological advancement and the availability of large amounts of data sources, it was crucial to explore new avenues for keeping the International Standard Classification of Occupations (ISCO) up to date in the future. A proof of concept (PoC) was initiated to test the feasibility of leveraging artificial intelligence (AI) and new data sources that could be used in future targeted and periodic ISCO maintenance. The PoC involved the use of Machine Learning (ML) and Natural Language Processing (NLP) techniques to breakdown the vast amount of data obtained from online job advertisements (OJA) in order for it to be used for analysis. The PoC developed a New and Emerging Occupation composite Index (NEOI) which estimates the likelihood of a job title being a new and emerging occupation candidate. This event is dedicated to presenting: i) the relevance of exploring the use of new data sources and methods for future ISCO maintenance; ii) the methodology used in the PoC and the main results; and iii) pilot tests for sustainable industry solutions, leveraging advanced artificial intelligence (AI) technologies such as ChatGPT and Azure ML Cloud, and coupling with new data acquired through collaborations with the private sector.

The PoC was prepared in partnership between the ILO Department of Statistics and the Ministry of Manpower of Singapore.