Quality Aspects of Machine Learning -
Official Statistics between Specific Quality Requirements and Methodological Innovation

CALL FOR PAPERS

On the one hand, machine learning methods offer new possibilities for analysis and insight – not only but also against the background of new types of data (sources), some of which are immense in scope – and thus enable higher-quality statistics and can contribute to efficiency improvements in the processes of official statistics. On the other hand, it has not yet been generally clarified whether and how the typically prediction-oriented, non-model-based approach of machine learning methods can be reconciled with the special quality requirements and framework conditions of official statistics. Keywords here are, for example:

- legal requirements regarding sample sizes, characteristics to be surveyed, or publication deadlines to be met;
- requirements for the accuracy of estimates to be achieved;
- frequent use of complex sample designs;
- requirements for transparency of processes and methods.

With the European Code of Practice, official statistics in Europe are subject to special quality requirements. One of these requirements is that the statistical processes for collecting, processing and disseminating statistics fully comply with international standards and guidelines and at the same time reflect the current state of scientific research.

In order to bring together the already built-up empirical knowledge from the practice of official statistics with the findings of science, and thus to promote and intensify the exchange between researchers from the field of machine learning and official statisticians working on applications of modern machine learning methods, Statistics Network Bavaria intends to organize a scientific workshop **in Munich from March 15 to 17, 2022**. The workshop will be organized for Statistics Network Bavaria by the Bavarian State Statistical Office, the Institute of Statistics of the Ludwig-Maximilians-University Munich and the ifo Institute Munich with the cooperation of the Federal Statistical Office of Germany.

In order to ensure the richest and most profitable exchange possible, to concretize and, if necessary, expand the abstract questions mentioned above as examples, and thus to promote future joint (research) work, the organizers are looking forward to relevant contributions from official statistics as well as from academia in the form of presentations and discussions within the framework of the workshop.

Please send presentation proposals by means of an abstract (1 to 2 pages) to **statistiknetzwerk@statistik.bayern.de by December 15, 2021 at the latest**. Abstracts should be submitted in German or English. Since we expect guests from non-German speaking countries, it is expected that slides will be provided at least in English (we are happy to additionally provide slides in German). Presentations can be given in German or English, English is preferred.

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For more information on the Statistics Network Bavaria, please visit: https://www.statistiknetzwerk.bayern.de