

## Machine Learning in Official Statistics: is Explainability an issue?

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### Abstract

*The growing use of machine learning raises questions about its fruitful use in Official Statistics.*

*An essential feature of Official Statistics is its transparency, both in terms of sources and data processing, a feature that is not always guaranteed by Machine Learning techniques, due to the lack of explainability of the results. In this work, after having identified the possible applications of Machine Learning in Official Statistics and the need for explainability, we show how explainability techniques are necessary only for some ML techniques and that solution, based mainly on local and model-independent approaches, have already been proposed in the literature for many applications.*

**Keywords:** Apprendimento automatico; Machine learning; Intelligenza artificiale; Spiegabilità; Qualità; Statistica Ufficiale

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