

In this talk we evaluate if the concept of differential privacy can be used to disseminate detailed geocoding information without compromising the confidentiality of the individuals included in the database. To enable the release of detailed geographical information we propose a differentially private procedure based on a micro-aggregation algorithm with a fixed minimal cluster size.

We evaluate whether meaningful results can be obtained with this approach using administrative data gathered by the German Federal Employment Agency. Detailed geocoding information has been added to this database recently and plans call for making this valuable source of information available to the scientific community. We generate differentially private microdata using different levels of geographical detail to identify the most detailed level that still provides acceptable analytical validity while offering strong differential privacy guarantees.

Keywords: Clustering, confidentiality, privacy