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Improvements of the Kohonen R package for application of self-organising maps on large data sets

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Self-organising maps (SOMs) are popular tools for clustering and visualisation of multi-dimensional data. Especially in a world of increased availability of large datasets originating from high throughput measurements, self-organising maps provide a simple and quick way of obtaining a detailed view on the data. The R package Kohonen provides an implementation for training and using self-organising maps. However, in order to deal with large datasets, version 2 of this package required some major changes to improve memory consumption and calculation speed. This presentation will present the various changes to the package that have led to a version 3, released in 2017. It will highlight the most important changes, present the results of a comparison between this version and the previous version, and include some motivating examples.