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#=====================MEMO AlgoNonSupervisé et reduction de dimensions=====================#

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DOCUMENTATION SKLEARN :

<http://scikit-learn.org/stable/modules/generated/sklearn.decomposition.FactorAnalysis.html>

<http://scikit-learn.org/stable/modules/generated/sklearn.decomposition.NMF.html>

REDUCTION LINEAIRE :

curse of dimensionality : <https://openclassrooms.com/fr/courses/4011851-initiez-vous-au-machine-learning/4020651-gerez-le-fleau-de-la-dimension>

la LDA (analyse discriminante linéaire) : <http://sebastianraschka.com/Articles/2014_python_lda.html>

Analyse en composante principale (exemple SCIENCE ETONNANTE) : <https://sciencetonnante.wordpress.com/2011/05/16/comment-nos-genes-trahissent-nos-origines/>

ANALYSE FACTORIELLE (details):

<https://www.wikiwand.com/fr/Maximum_de_vraisemblance>

<https://www.microsoft.com/en-us/research/publication/probabilistic-principal-component-analysis>

REDUCTION NON LINEAIRE :

Rappel OCR : <https://openclassrooms.com/courses/initiez-vous-au-machine-learning>

Formulation de l’algorithme Kernel ACP : <http://pca.narod.ru/scholkopf_kernel.pdf>

Kernel Methods course : https://alex.smola.org/teaching/cmu2013-10-701/kernels.html

How to Use t-SNE Effectively : <https://distill.pub/2016/misread-tsne/>

KL divergence : [https://en.wikipedia.org/wiki/Kullback%E2%80%93Leibler\_divergence](https://en.wikipedia.org/wiki/Kullback–Leibler_divergence)

Clustering :

**silhouettes metrics** : displays a measure of how close each point in one cluster is to points in the neighboring clusters and thus provides a way to assess parameters like number of clusters visually. This measure has a range of [-1, 1].

Silhouette coefficients (as these values are referred to as) near +1 indicate that the sample is far away from the neighboring clusters