

The semantic connectivity map: an adapting self-organising knowledge discovery method in data bases. Experience in gastro-oesophageal reflux disease

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Abstract: We describe here a new mapping method able to find out connectivity traces among variables thanks to an artificial adaptive system, the Auto Contractive Map (AutoCM), able to define the strength of the associations of each variable with all the others in a dataset. After the training phase, the weights matrix of the AutoCM represents the map of the main connections between the variables. The example of gastro-oesophageal reflux disease data base is extremely useful to figure out how this new approach can help to re-design the overall structure of factors related to complex and specific diseases description.

Keywords: AAS; artificial adaptive systems; ANN; artificial neural networks; connectivity map; non-linearity; AutoCM.

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