

Mapping diachronic concept drift in networks through 'Reversed Classification'

Debates on classifications in the humanities often focus on the definition of a classification and not so much on what it identifies. A well known example is of course 'nationality', but also a (historical) occupation/capacity and even seemingly unproblematic classifications like 'the nineteenth century' pose several problems.

Still, the need to be able to identify groups or clusters within networks in a structured manner without the need to perform sequences of filters is evident. To facilitate this need, we have developed a functionality in nodegoat (<http://nodegoat.net/>) that allows for the dynamic definition of clusters by means of fuzzy filtering. We have coined this process as 'reversed classification'.

In general, classifications emphasise a convention of value and vocabulary. The direction of a classification is outward, relating to the convention unidirectionally. In effect, the classification is unable to communicate/negotiate with the network it classifies. The reversal of the classification process opens up the convention by disclosing its parameters. Reversal allows the classification to be scrutinised, reconfigured and re-evaluate the objects it classifies.

Simply put: instead of identifying classifications and assigning these to objects in a dataset (like 'sculptor' or 'German'), a user defines a multi-faceted filter spanning multiple datasets in which they define any number of parameters that are associated with a classification. This will reverse the classifying process as the definition of the classification is identified by the exchange between parameters of the classification and attributes of the object.

For the classification of 'Artist' this would allow for an inclusion of persons who yield positive on the filter ('pupil of person who produced paintings' AND 'has had paintings in an exhibition') OR ('person who studied at School of Visual Arts' AND 'has had video installations in an exhibition'). No external labeling or self-labeling of the classification of 'Artist' is needed.

By making use of circumstances depending on time and location, a reversed classification is able to accompany varying configurations relating to place and time. Reversed classifications can be employed to cluster people and organisations who are subject to considerable changes over time and in affiliation like 'activists'/'freedom fighters'/'terrorists'. Correspondingly, the location and date of a circumstance can also be reversely classified and retrieved from the configuration of the classification. Objects that match ('artifact excavated at a depth of X meters' AND 'in the region of Susa'), could for example be classified with Achaemenid Empire (depending on X) and use the date configured in that classification as its own.

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