Taxonomy Formation by Approximate Equivalence Relations, Revisited

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Abstract. Unsupervised classification of objects involves formation of classes and construction of one or more taxonomies that include those classes. Meaningful classes can be formed in feedback with acquisition of knowledge about each class. We demonstrate how contingency tables can be used to construct one-level taxonomy elements by relying only on approximate equivalence relations between attribute pairs, and how a multi-level taxonomy formation can be guided by a partition utility function. Databases with different types of attributes and large number of records can be dealt with.