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SIMILARITY MAPS IN VARIOUS AREAS OF SCIENCE

Abstract:

The aim of the present work are similarity/dissimilarity studies in bioinformatics as well as in social and health sciences. The considered objects have very diverse characters. They are biological sequences in bioinformatics and groups of individuals and their answers to some questions in the case of health and social sciences. In particular, we present a new bioinformatics method in which the biological sequences are represented by 3D-dynamic graphs [1]. For comparison of such objects we apply values analogous to these used in the classical dynamics. This method is a generalization of the 2D method [2]. Similarity is relative: it depends on the properties being considered. Examples of similarity maps for different properties (factors) in social science [3,4], in bioinformatics [1], and unpublished results in the health sciences are shown. In this way, we can classify different objects and search for factors which influence the results of the classifications.

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