

Clarifying Lattice Structure by Data Polishing

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Abstract. Concept lattice is made from many kinds of data. We want to use large scale data for the construction to capture wide and deep meanings but the result of the construction usually yields a quite huge lattice that is impossible to handle. Several techniques have been proposed to cope with this problem, but to best of our knowledge no algorithm attains good granularity, coverage, size distribution, and independence of concepts at the same time. We consider this difficulty comes from that the concepts are not clear in the data, so a good approach is to clarify the concepts in the data by some operations. In this direction, we propose “data polishing” that modify the data according to feasible hypothesis so that the concepts becomes clear.