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Data Mining - Development and Future -

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Applications of data mining to chemistry and medicine are in a starting phase. A difficulty of the application in these fields is from the complex structures of objective data such as molecular structures, genome sequence and therapy history. Another difficulty is from the shortage of human resource having background knowledge in each domain and data mining techniques. Accordingly, the collaboration among domain experts and data mining engineers is required. In this report, first, present state of data mining applications to industry is outlined. Second, an application of a representative data mining method to medicine is shown. Third, more recent and advanced techniques of data mining is introduced, and their application to Structure-Activity-Relationship analysis is shown. Though these applications, the collaboration among the experts and the engineers is exemplified. Finally, the future trend of data mining is discussed.