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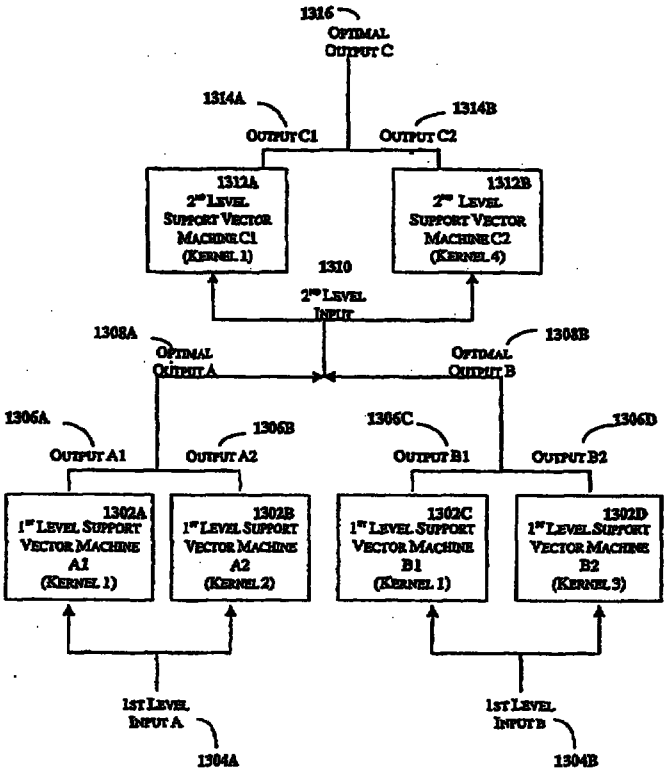
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(54) Title: ENHANCING KNOWLEDGE DISCOVERY FROM MULTIPLE DATA SETS USING MULTIPLE SUPPORT VECTOR MACHINES



(57) Abstract: A system and method for enhancing knowledge discovery from data using multiple learning machines in general and multiple support vector machines in particular. Training data for a learning machine is pre-processed in order to add meaning thereto. Pre-processing data may involve transforming the data points and/or expanding the data points. By adding meaning to the data, the learning machine is provided with a greater amount of information for processing. With regard to support vector machines in particular, the greater the amount of information that is processed, the better generalizations about the data that may be derived. Multiple support vector machines, each comprising distinct kernels, are trained with the pre-processed training data and are tested with test data that is pre-processed in the same manner. The test outputs from multiple support vector machines are compared in order to determine which of the test outputs if any represents a optimal solution. Selection of one or more kernels may be adjusted and one or more support vector machines may be retrained and retested. Optimal solutions based on distinct input data sets may be combined to form a new input data set to be input into one or more additional support vector machine.

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