

Learning with Teacher: Learning Using Hidden Information

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Abstract:

In this talk I will discuss a new learning paradigm called Learning Using Hidden Information (LUHI). In contrast to the existing machine learning paradigm where a teacher does not play an important role, this LAHI paradigm considers some elements of human teaching. In the new paradigm along with examples, a teacher provides students with hidden information that exists in explanations, comments, comparisons, metaphors, and so on. This additional information is available only for training data. IT WILL NOT BE AVAILABLE FOR TEST DATA. In the talk I will discuss details of the LUHI paradigm, introduce some algorithms for constructing decision function using hidden information, consider several specific forms of hidden information, show superiority of the new learning paradigm over the classical learning paradigm, and discuss general questions related to the new ideas.