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Overview of Machine Learning

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Abstract: *The field of machine learning is introduced at a high level of abstraction. The concepts of supervised and unsupervised learning, regression, and classification are all discussed. A major guiding notion of learning is the balance between bias, variance, and model complexity. The neural network (feed-forward and recurrent), support vector machine, random forest, self-organizing map, and Bayesian network are all examples of models that machine learning can develop. The core ideas of partitioning a dataset into training, testing, and validation sets, as well as performing cross-validation, are addressed next. The importance of the domain expert in keeping the project real is discussed next, followed by evaluating the model's goodness. The chapter ends with some practical advice on how to perform a machine learning project.*

Keywords: Natural language processing (NLP), Database, Computer vision, Supervised learning, Unsupervised learning, Reinforcement learning, Neural network, Overfitting.

REFERENCES

[1]. Cohen AM, Hersh WR, Peterson K, et al. Using automated citation classification to save workload in systematic review preparation. J Am Med Inform Assoc. 2006;13(2):206–19. [PMC free article] [PubMed]
[2]. Dalal SR, Shekelle PG, Hempel S, et al. A Pilot Study Using Machine Learning and Domain Knowledge To Facilitate Comparative Effectiveness Review Updating, Methods Research Report. Rockville, MD: Agency for Healthcare Research and Quality; Sep, 2012. Prepared by the Southern California Evidence-based Practice Center under Contract No. 290-2007-10062-I). AHRQ Publication No. 12-EHC069-EF. [PubMed]
[3]. Danz M, Rubenstein L, Hempel S, et al. Identifying quality improvement intervention evaluations –is consensus achievable? Qual Saf Health Care. 2010;19(4):279–83. [PubMed]
[4]. Deerwester S, Dumais S, Furnas G, et al. Indexing by Latent Semantic Analysis. J Am Soc Inf Sci. 1990;41(6):391–407.
[5]. EPOC: Cochrane Effective Practice and Organisation of Care Group. Welcome to the EPOC Ottawa Website. [Accessed April 2012]. http://epoc.cochrane.org.