

Supervised learning I

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This paper said that supervised learning, whether deep or not¹, is the most common form of machine learning.¹ This means they build a system that can classify images as containing. The professors first collect a large data set of images of homes, cars, people and pets, each labelled with its category before training.

The process is complex, because they want to have the highest score of all categories, but this is impossible. They compute an objective function that measures the error (or distance) between the output scores and the desired pattern of scores. [1] The machine then modifies the internal adjustable pattern called weight.

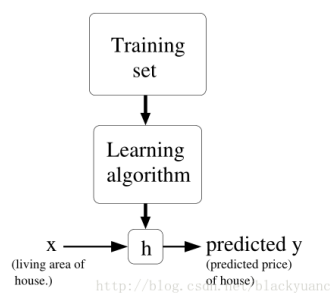


Figure 1: Supervised learning

The main question is, how to properly adjust the weight vector for each weight which indicates by what amount the error would increase or decrease if the weight were increased by a tiny amount. I will continue learning.

1	Supervised Learning
2	Unsupervised Learning
3	Intensive learning

Table 1: Classification of machine learning

References

- [1] Yoshua Bengio Geoffrey Hinton Yann LeCun. Deep learning. *Nature*, 521(28):9, 2015.