## An Embarrassingly Simple Semi-supervised Approach to Increase Recall in Online Shopping Domain to Match Structured Data with Unstructured Data

Authors : Sachin Nagargoje

**Abstract :** Complete labeled data is often difficult to obtain in a practical scenario. Even if one manages to obtain the data, the quality of the data is always in question. In shopping vertical, offers are the input data, which is given by advertiser with or without a good quality of information. In this paper, an author investigated the possibility of using a very simple Semi-supervised learning approach to increase the recall of unhealthy offers (has badly written Offer Title or partial product details) in shopping vertical domain. The author found that the semisupervised learning method had improved the recall in the Smart Phone category by 30% on A=B testing on 10% traffic and increase the YoY (Year over Year) number of impressions per month by 33% at production. This also made a significant increase in Revenue, but that cannot be publicly disclosed.

Keywords : semi-supervised learning, clustering, recall, coverage

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