Yiming Liu, Xuezhi Cao, and Yong Yu

Are You Influenced by Others When Rating? Improve Rating Prediction by Conformity Modelling

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1/12/2016

RECOMMENDATION

Basic task: to predict how would user rate an item.

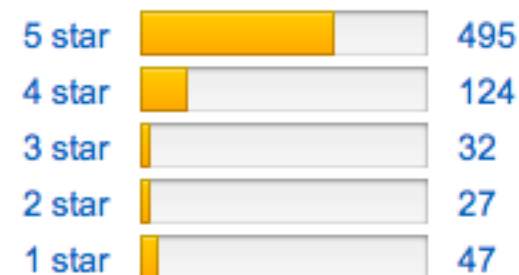Usually based on **his/someone's** previous ratings.

RECOMMENDATION

Basic task: to predict how would user rate an item.

Usually based on **his/someone's** previous ratings.

But: What if he sees some previous ratings?

CONFORMITY

Conformity shapes people's behaviours to group norms.

AUTHORS' APPROACH

They used previous ratings to estimate conformity and to **predict unknown ratings**.

Three conformity models:

basic

group size

cohesion / unanimity

BASIC MODEL

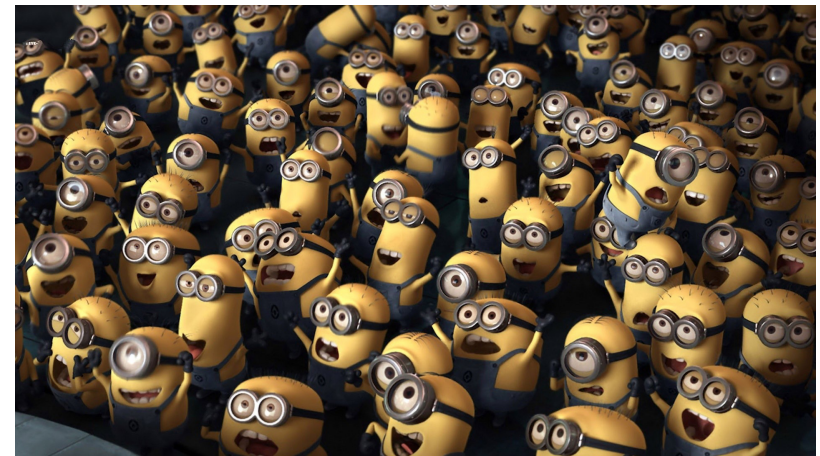
+

LINEAR
COMBINATION

user
preferences

influence of
public opinion

existing ratings (before user votes)

GROUP SIZE

vs.

few people

crowd

COHESION & UNANIMITY

low cohesion

people rather express
their own opinions

unanimity

people follow the majority
for no reason

DISCUSSION

They improved accuracy of prediction, but does it model real life?

Is rating enough, what about reviews' texts?

Use-case: Detection of this behaviour.

SOURCES

(1)   Yiming Liu, Xuezhi Cao, and Yong Yu. 2016. Are You Influenced by Others When Rating?: Improve Rating Prediction by Conformity Modeling. In Proceedings of the 10th ACM Conference on Recommender Systems (RecSys '16). ACM, New York, NY, USA, 269-272. DOI: http://dx.doi.org/10.1145/2959100.2959141