

## Accepted Manuscript

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PII: S0378-4371(17)30184-X

DOI: <http://dx.doi.org/10.1016/j.physa.2017.02.031>

Reference: PHYSA 18011

To appear in: *Physica A*

Received date: 1 March 2016

Revised date: 1 February 2017

Please cite this article as: Y. Chen, J. Li, H. Huang, L. Ran, Y. Hu, Encouraging information sharing to boost the name-your-own-price auction, *Physica A* (2017), <http://dx.doi.org/10.1016/j.physa.2017.02.031>

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# Encouraging Information Sharing to Boost the Name-Your-Own-Price Auction

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## Abstract

During a name-your-own-price (NYOP) auction, buyers can learn a lot of knowledge from their socially connected peers. Such social learning process makes them become more active to attend the auction and also helps them make decisions on what price to submit. Combining an information diffusion model and a belief decision model, we explore three effects of bidders' information sharing on the buyers' behaviors and the seller profit. The results indicate that information sharing significantly increases the NYOP popularity and the seller profit. When enlarging the quality or quantity of information sharing, or increasing the spreading efficiency of the network topology, the number of attenders and the seller profit are increased significantly. However, the spread of information may make bidders be more likely to bid higher and consequently lose surplus. In addition, the different but interdependent influence of the successful information and failure information are discussed in this work.

*Keywords:* Information sharing, Social learning, Belief-decision model, Name-Your-Own-Price

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## 1. Introduction

With the development of the Web 2.0 technologies, more and more normal people are encouraged to play an active role in the campaign of selling and buying online [1]. Name-Your-Own-Price, or abbreviated as NYOP, is an

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