arXiv.org > physics > arXiv:1107.4491

Search or Article-id

(Help | Advar

All papers

Physics > Physics and Society

## Enhancing topology adaptation in information-sharing social networks

Giulio Cimini, Duanbing Chen, Matus Medo, Linyuan Lu, Yi-Cheng Zhang, Tao Zhou

(Submitted on 22 Jul 2011 (v1), last revised 13 Apr 2012 (this version, v2))

The advent of Internet and World Wide Web has led to unprecedent growth of the information available. People usually face the information overload by following a limited number of sources which best fit their interests. It has thus become important to address issues like who gets followed and how to allow people to discover new and better information sources. In this paper we conduct an empirical analysis on different on-line social networking sites, and draw inspiration from its results to present different source selection strategies in an adaptive model for social recommendation. We show that local search rules which enhance the typical topological features of real social communities give rise to network configurations that are globally optimal. These rules create networks which are effective in information diffusion and resemble structures resulting from real social systems.

Subjects: Physics and Society (physics.soc-ph); Social and Information Networks

(cs.SI)

Journal reference: Phys. Rev. E 85, 046108 (2012) Cite as: arXiv:1107.4491 [physics.soc-ph]

(or arXiv:1107.4491v2 [physics.soc-ph] for this version)

## Submission history

From: Giulio Cimini [view email]

[v1] Fri, 22 Jul 2011 12:03:15 GMT (124kb) [v2] Fri, 13 Apr 2012 14:38:38 GMT (143kb,D)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

## **Download:**

- PDF
- Other formats

Current browse cont physics.soc-ph

< prev | next > new | recent | 1107

Change to browse b

cs.SI physics

References & Citation

NASA ADS

Bookmark(what is this?)







