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Division: Computational Methods Division
PRESENTATION TYPE: Paper : No, this is not a student paper.
TITLE: Measuring Selective Exposure: A Systematic Comparison of Community Detection Algorithms in Coexposure Networks
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IS THIS A STUDENT PAPER?: No, this is not a student paper.
Preferred Keyword: network analysis
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ABSTRACT BODY: Abstract: Network analytic techniques such as community detection have seen widespread application in recent years for the purposes of understanding audience fragmentation and selective exposure to information. In this paper, I propose a formal mathematical model for audience co-exposure networks with an aim to understand which community detection algorithm is most suitable for measuring selective exposure in such networks. I do this by simulating audience behavior in an artificial media environment and constructing a large number of synthetic co-exposure networks for various combinations of the model parameters. I then use a variety of community detection algorithms to measure the extent of selective exposure in these synthetic networks, and compare their performances. Finally, I validate these findings using a novel empirical data-set of actual large-scale browsing behavior and demonstrate the model's utility in informing future analytical choices.
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