

Class 15: Complex contagion

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Sociology 204: Social Networks
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2/2 Experimental test of network structure on spreading



Complex Contagions and the Weakness of Long Ties¹

Damon Centola
Harvard University

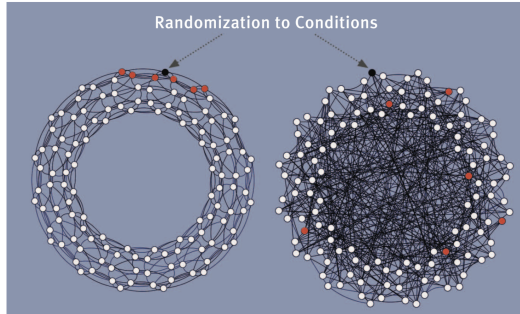
Michael Macy
Cornell University

The Spread of Behavior in an Online Social Network Experiment

Damon Centola

Two competing hypothesis:

- ▶ behavior will spread faster on highly clustered networks
- ▶ behavior will spread faster in networks with many “long ties”



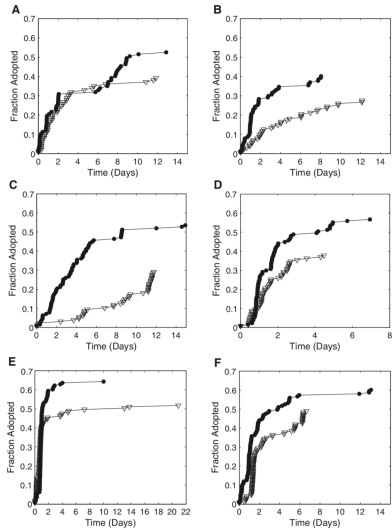
Notice horse race design

Let's listen to Damon tell us about the experimental set-up

<http://www.youtube.com/watch?v=o0fDcUJMzkI&t=47m52s>

Let's listen to Damon tell us about the results

<http://www.youtube.com/watch?v=o0fDcUJMzkI&t=53m35s>



Behavior spreads further and faster in clustered network. This is because redundancy of emails helps with adoption.



<https://www-jstor-org.ezproxy.princeton.edu/stable/j.ctvc7758p>

Summary

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- ▶ horse race

- ▶ Nickerson, D.W. (2008). Is voting contagious? Evidence from two field experiments. *American Political Science Review*.
- ▶ Kramer, A.D.I. et al. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences*.