

# Fame and fate: Why is global success so unpredictable?

Principles of Complex Systems | @pocsvox  
 CSYS/MATH 300, Fall, 2015 | #FallPoCS2015

Prof. Peter Dodds | @peterdodds

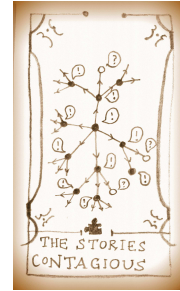
Dept. of Mathematics & Statistics | Vermont Complex Systems Center  
 Vermont Advanced Computing Core | University of Vermont



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 Why is global  
 success so  
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Superstars  
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## The most famous painting in the world:



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## Outline

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## The dismal predictive powers of editors .....



Twelve ...

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## The completely unpredicted fall of Eastern Europe:



Timur Kuran: [2] "Now Out of Never: The Element of Surprise in the East European Revolution of 1989"

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## Reason 2—"We are all individuals." ↗

Archival footage:

- ▶ Individual narratives are not enough to understand distributed, networked minds.

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## We understand bushfire stories:

1. Sparks start fires.
2. System properties control a fire's spread.
3. But we make two mistakes about Social Fires...

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## Reason 3—We are spectacular imitators.

BBC/David Attenborough.

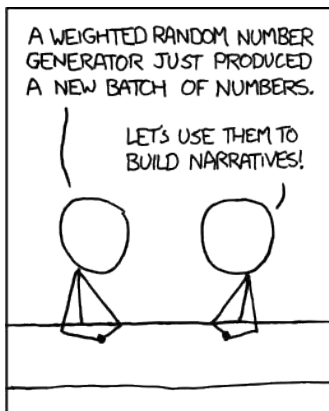
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## Reason 1—We are Homo Narrativus.



ALL SPORTS COMMENTARY

<http://xkcd.com/904/> ↗

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## Mistake 1: Success is due to intrinsic properties

See "Becoming Mona Lisa" by David Sassoon ↗

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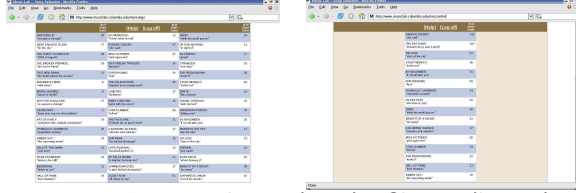
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48 songs  
30k participants

Exp 1— weak social

Exp. 2—strong social



"An experimental study of inequality and unpredictability in an artificial cultural market"  
Salganik, Dodds, and Watts,  
Science, **311**, 854–856, 2006. [3]

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Mistake 2:  
Seeing success is 'due to social' and  
wanting to say 'all your interactions are  
belong to us'

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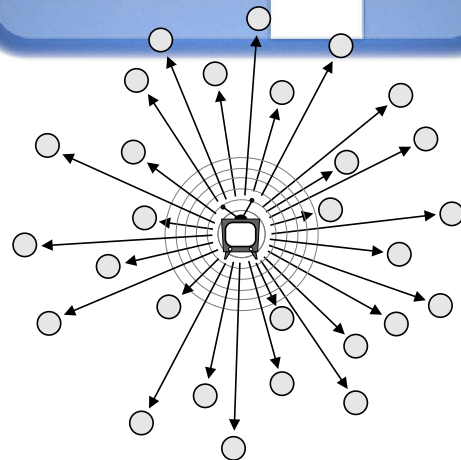
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The hypodermic model of influence:



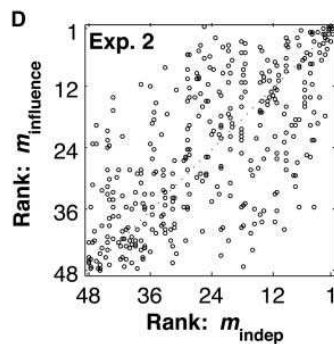
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Resolving the paradox:



Increased social awareness leads to  
Stronger inequality + Less predictability.

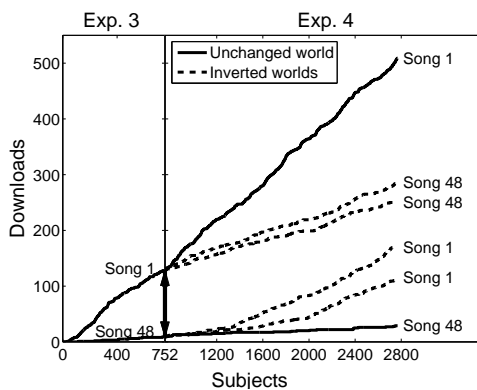
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Payola/Deceptive advertising hurts us all:



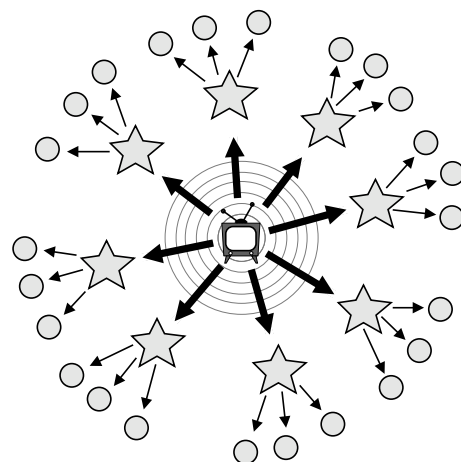
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The two step model of influence: [1]



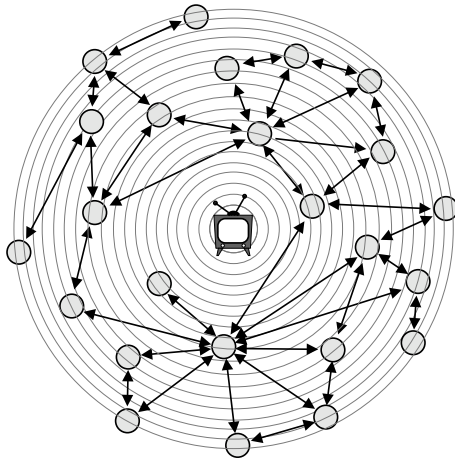
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The network model of influence:



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Etymological clarity:

- **Fate**—from the Latin *fatus*: meaning “spoken”.
- Fate is talk that has been done.  
“It is written”, fore-tell, pre-dict.
- “There is no such thing as fate, only the story of fate.”
- Destiny is probabilistic.
- **Fame**—from the Latin *fāma*: meaning “to talk.”
- Fame is inherently the social discussion about the thing, not the thing itself.
- **Renown**: Repeatedly named, talked about. Old French *renon*, from re- + non (“name”).
- **Réclame**: “Clamo”—Proto-Indo-European: “to shout” (again). Connected to “lowing”.

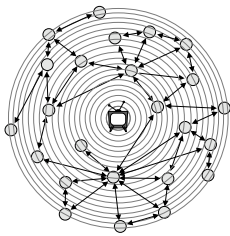
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The network model of influence:



How superspreading works:  
Many interconnected, average, trusting people must benefit from both receiving and sharing a message far from its source.

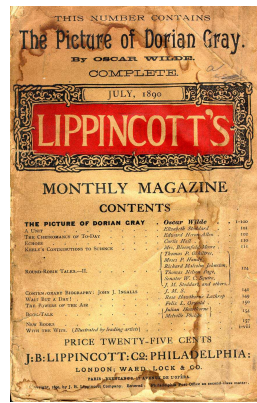
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Oscar Wilde, The Picture of Dorian Gray



“There is only one thing in the world worse than being talked about, and that is not being talked about.”

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“Influentials, Networks, and Public Opinion Formation”  
Watts and Dodds,  
J. Consum. Res., 34, 441–458, 2007. [4]

Things that spread quickly:



+ News ...

buzzfeed.com

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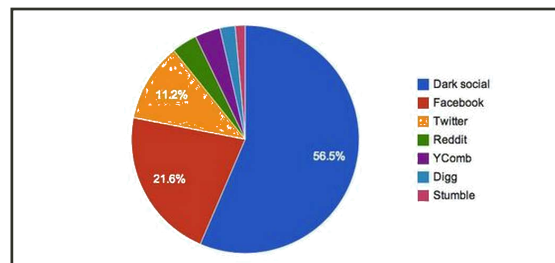
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Spreading in the social wild:

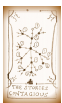
The Dark Social Web



Dark Social: We Have the Whole History of the Web Wrong [The Atlantic]

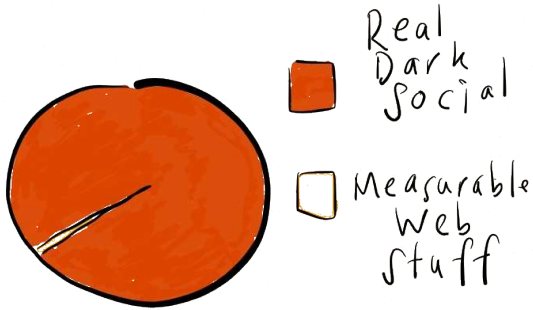
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A completely made up pie chart:



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- [2] T. Kuran.  
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World Politics, 44:7-48, 1991. [pdf](#)
- [3] M. J. Salganik, P. S. Dodds, and D. J. Watts.  
An experimental study of inequality and unpredictability in an artificial cultural market.  
Science, 311:854-856, 2006. [pdf](#)

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How to make things spread (maybe):

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## References II

- [4] D. J. Watts and P. S. Dodds.  
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Journal of Consumer Research, 34:441-458, 2007.  
[pdf](#)

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Shareworthy Content is King:

1. Build entities/messages/stories that have intrinsic and social value out in the **Social Wild**.
2. Advertise but lay off the social interactions.
3. Just keep trying.

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