

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

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Principles of Complex Systems, Vols. 1, 2, & 3D  
CSYS/MATH 300, 303, & 394, 2022–2023 | @pocsvox

Prof. Peter Sheridan Dodds | @peterdodds

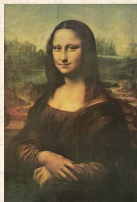
Computational Story Lab | Vermont Complex Systems Center  
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Why is global  
success so  
unpredictable?

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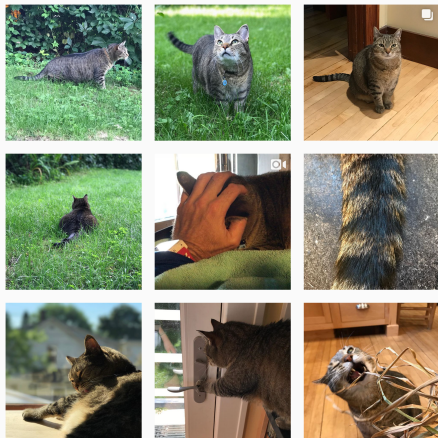


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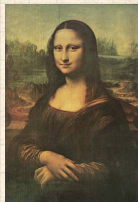


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# Outline

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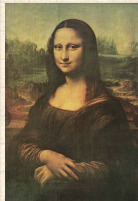
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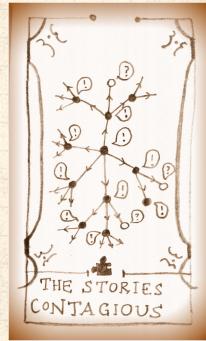
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# The most famous painting in the world:

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

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Twelve ...



# The completely unpredicted fall of Eastern Europe:



Timur Kuran: <sup>[3]</sup> "Now Out of Never: The Element of Surprise in the East European Revolution of 1989"

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# We understand bushfire stories:

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



# Reason 1—We are Homo Narrativus.

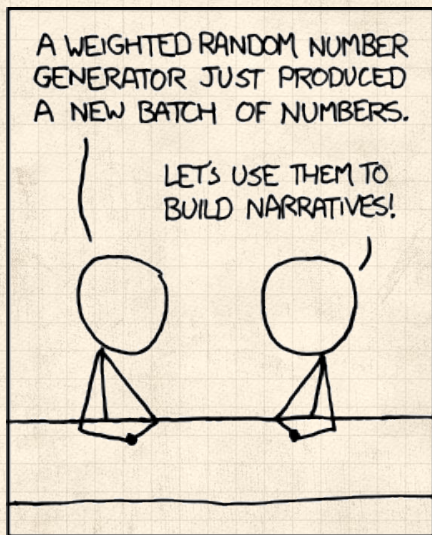
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## Reason 2—"We are all individuals."

Archival footage:

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



## Reason 3—We are spectacular imitators.

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BBC/David Attenborough.



# Mistake 1: Success is due to intrinsic properties

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See "Becoming Mona Lisa" by David Sassoon 





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48 songs  
30k participants

## Exp 1— weak social

	Rank	Title	Rank	Rank
1	1	THE MIDDLE	1	1
2	2	THE MIDDLE	2	2
3	3	THE MIDDLE	3	3
4	4	THE MIDDLE	4	4
5	5	THE MIDDLE	5	5
6	6	THE MIDDLE	6	6
7	7	THE MIDDLE	7	7
8	8	THE MIDDLE	8	8
9	9	THE MIDDLE	9	9
10	10	THE MIDDLE	10	10
11	11	THE MIDDLE	11	11
12	12	THE MIDDLE	12	12
13	13	THE MIDDLE	13	13
14	14	THE MIDDLE	14	14
15	15	THE MIDDLE	15	15
16	16	THE MIDDLE	16	16
17	17	THE MIDDLE	17	17
18	18	THE MIDDLE	18	18
19	19	THE MIDDLE	19	19
20	20	THE MIDDLE	20	20
21	21	THE MIDDLE	21	21
22	22	THE MIDDLE	22	22
23	23	THE MIDDLE	23	23
24	24	THE MIDDLE	24	24
25	25	THE MIDDLE	25	25
26	26	THE MIDDLE	26	26
27	27	THE MIDDLE	27	27
28	28	THE MIDDLE	28	28
29	29	THE MIDDLE	29	29
30	30	THE MIDDLE	30	30

## Exp. 2—strong social

	Rank	Title	Rank	Rank
1	1	THE MIDDLE	1	1
2	2	THE MIDDLE	2	2
3	3	THE MIDDLE	3	3
4	4	THE MIDDLE	4	4
5	5	THE MIDDLE	5	5
6	6	THE MIDDLE	6	6
7	7	THE MIDDLE	7	7
8	8	THE MIDDLE	8	8
9	9	THE MIDDLE	9	9
10	10	THE MIDDLE	10	10
11	11	THE MIDDLE	11	11
12	12	THE MIDDLE	12	12
13	13	THE MIDDLE	13	13
14	14	THE MIDDLE	14	14
15	15	THE MIDDLE	15	15
16	16	THE MIDDLE	16	16
17	17	THE MIDDLE	17	17
18	18	THE MIDDLE	18	18
19	19	THE MIDDLE	19	19
20	20	THE MIDDLE	20	20
21	21	THE MIDDLE	21	21
22	22	THE MIDDLE	22	22
23	23	THE MIDDLE	23	23
24	24	THE MIDDLE	24	24
25	25	THE MIDDLE	25	25
26	26	THE MIDDLE	26	26
27	27	THE MIDDLE	27	27
28	28	THE MIDDLE	28	28
29	29	THE MIDDLE	29	29
30	30	THE MIDDLE	30	30

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“An experimental study of inequality and unpredictability in an artificial cultural market” ↗

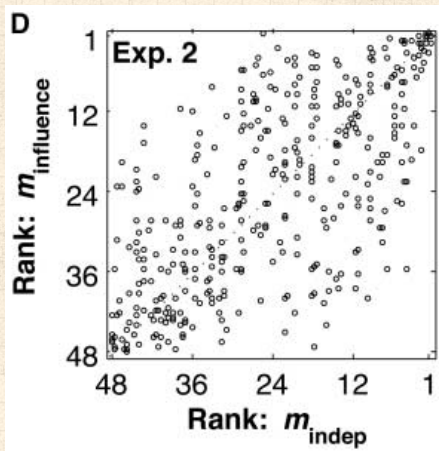
Salganik, Dodds, and Watts,  
Science, **311**, 854–856, 2006. <sup>[4]</sup>



# Resolving the paradox:

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Increased social awareness leads to  
Stronger inequality + Less predictability.

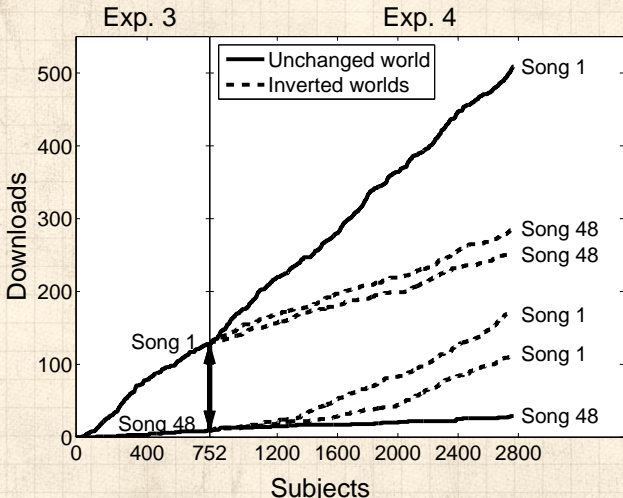


# Payola/Deceptive advertising hurts us all:

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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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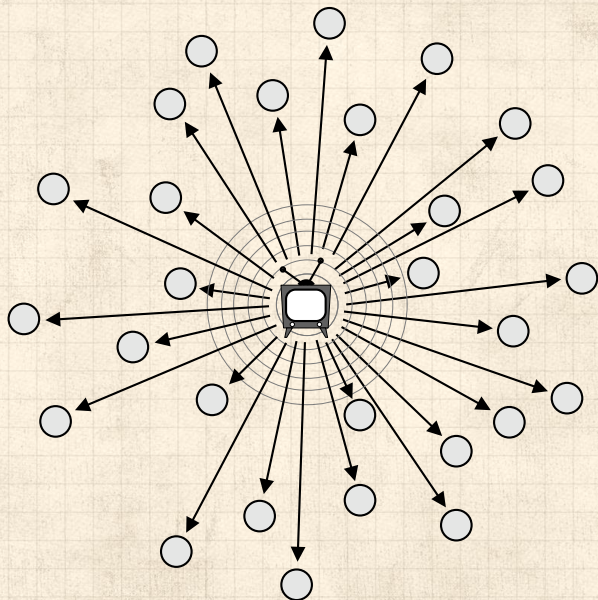
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# The hypodermic model of influence:

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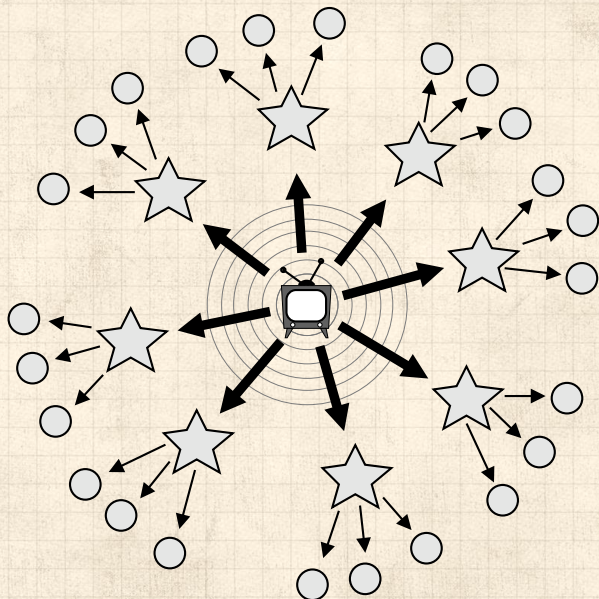
References



# The two step model of influence: [2]

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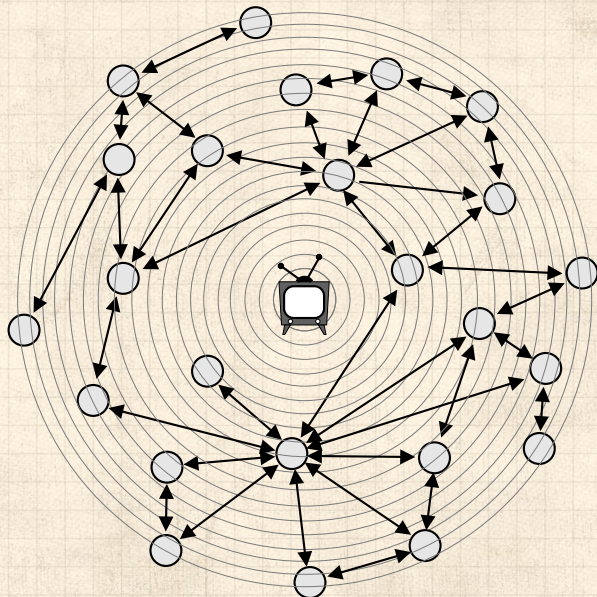
References



# The network model of influence:

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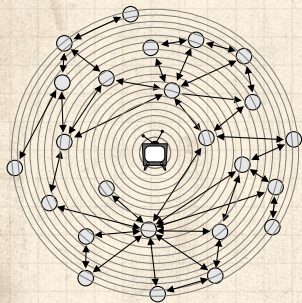
References



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## 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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References



“Influentials, Networks, and Public Opinion  
Formation” 

Watts and Dodds,

J. Consum. Res., **34**, 441–458, 2007. <sup>[5]</sup>



# Things that spread quickly:



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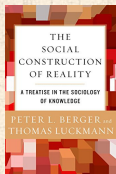
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+ News ...

[buzzfeed.com](http://buzzfeed.com) 








"The social construction of reality: A treatise  
in the sociology of knowledge"    
by Berger and Luckmann (1991). <sup>[1]</sup>

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 Reality is socially constructed ,  
to some hard-to-measure degree.



 People do and don't see this: Fate versus Fortune.





## 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 probablistic.

 **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”.





# Oscar Wilde, The Picture of Dorian Gray

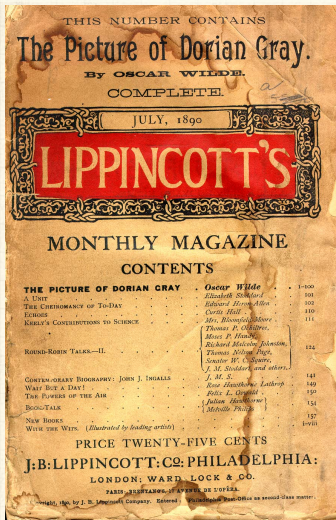
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“There is only one  
thing in the world

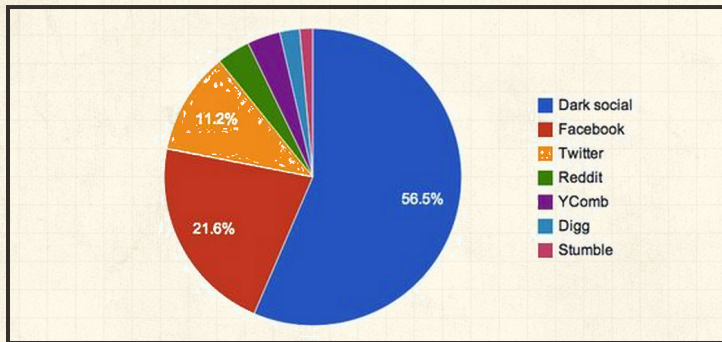
worse than being  
talked about,

and that is

not being talked  
about.”



## The Dark Social Web



“The only real way to optimize for social spread is in the nature of the content itself. There’s no way to game email or people’s instant messages. There’s no power users you can contact. There’s no algorithms to understand. This is pure social, uncut. [sic]”



# A completely made up pie chart:



Real  
Dark  
Social



Measurable  
Web  
stuff

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# How to make things spread (maybe):

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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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References



# References I

- [1] P. L. Berger and T. Luckmann.  
The social construction of reality: A treatise in the sociology of knowledge.  
Penguin UK, 1991.
- [2] E. Katz and P. F. Lazarsfeld.  
Personal Influence.  
The Free Press, New York, 1955.
- [3] T. Kuran.  
Now out of never: The element of surprise in the east european revolution of 1989.  
World Politics, 44:7-48, 1991. pdf ↗
- [4] M. J. Salganik, P. S. Dodds, and D. J. Watts.  
An experimental study of inequality and unpredictability in an artificial cultural market.  
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- [5] D. J. Watts and P. S. Dodds.  
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[Journal of Consumer Research, 34:441–458, 2007.](#)

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