

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

Last updated: 2024/11/11, 14:17:18 EST

Principles of Complex Systems, Vols. 1, 2, & 3D  
CSYS/MATH 6701, 6713, & a pretend number, 2024–2025

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Computational Story Lab | Vermont Complex Systems Center  
Santa Fe Institute | University of Vermont



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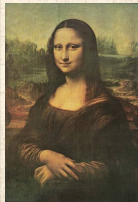
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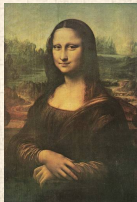


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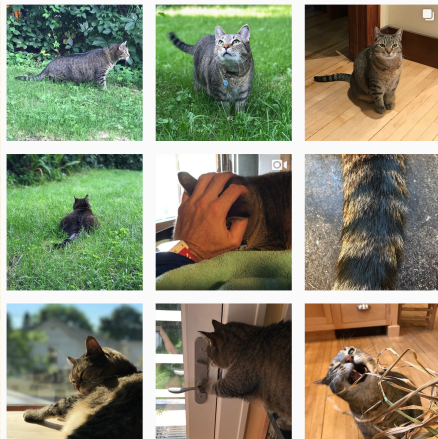
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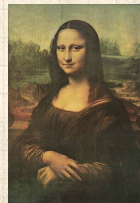
 On Instagram at [pratchett\\_the\\_cat](https://www.instagram.com/pratchett_the_cat) 

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# Outline

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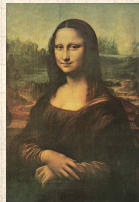
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# The most famous painting in the world:



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

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Twelve ...



# The completely unpredicted fall of Eastern Europe:

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





# We understand bushfire stories:

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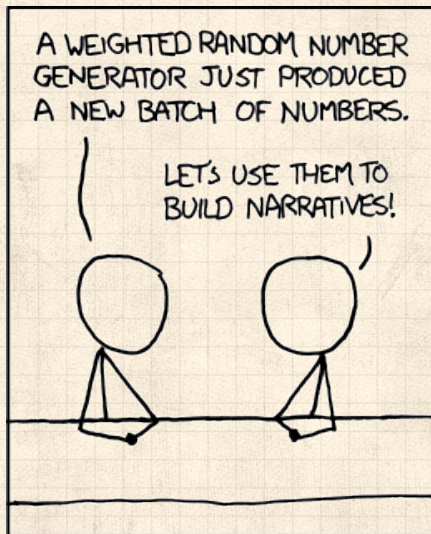
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1. Sparks start fires.
2. System properties control a fire's spread.
3. But we make two mistakes about **Social Fires**...



## Reason 1—We are Homo Narrativus.



ALL SPORTS COMMENTARY

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## Reason 2—“We’re all individuals!”



Archival footage.



Individual narratives do not describe distributed, networked minds.

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Reason 3—We are spectacular imitators  



BBC/David Attenborough

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# Mistake 1: Success is due to intrinsic properties

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See “Becoming Mona Lisa” by David Sassoon 





48 songs  
30k participants

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## Exp 1— weak social

	Up	Hit	Loss	Down
1	20	10	10	10
2	15	15	10	10
3	10	20	10	10
4	5	25	10	10
5	10	15	10	10
6	15	10	10	10
7	10	15	10	10
8	15	10	10	10
9	10	15	10	10
10	15	10	10	10
11	10	15	10	10
12	15	10	10	10
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16	15	10	10	10
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21	10	15	10	10
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31	10	15	10	10
32	15	10	10	10
33	10	15	10	10
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37	10	15	10	10
38	15	10	10	10
39	10	15	10	10
40	15	10	10	10
41	10	15	10	10
42	15	10	10	10
43	10	15	10	10
44	15	10	10	10
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47	10	15	10	10
48	15	10	10	10

## Exp. 2—strong social

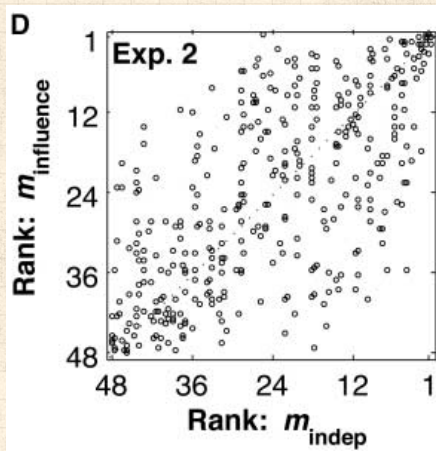
	Up	Hit	Loss	Down
1	20	10	10	10
2	15	15	10	10
3	10	20	10	10
4	5	25	10	10
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6	15	10	10	10
7	10	15	10	10
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38	15	10	10	10
39	10	15	10	10
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42	15	10	10	10
43	10	15	10	10
44	15	10	10	10
45	10	15	10	10
46	15	10	10	10
47	10	15	10	10
48	15	10	10	10



“An experimental study of inequality and unpredictability in an artificial cultural market” ↗  
Salganik, Dodds, and Watts,  
Science, 311, 854–856, 2006. [4]



## Resolving the paradox:



Increased social awareness leads to **Stronger** inequality + **Less** predictability.

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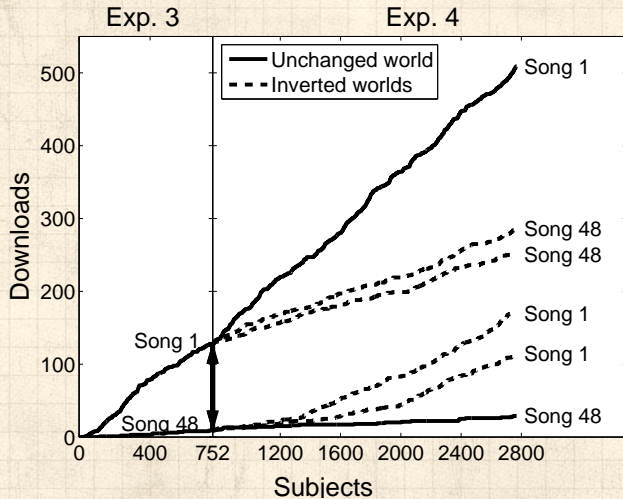
# Payola/Deceptive advertising hurts us all:

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Mistake 2:

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

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# “This is truly the last time, believe me”

The Washington Post

Business + Analysis



### 14 years of Mark Zuckerberg saying sorry, not sorry

By Geoffrey A. Fowler and Christy Linton April 8, 2018  
Do you trust Mark Zuckerberg?

From the moment the Facebook founder entered the public eye in 2005 for creating a Harvard student hot-or-not rating site, he's been apologizing. So we collected this abbreviated history of his public mea culpas.

It reads like a record on repeat. Zuckerberg, who made “move fast and break things” his slogan, says sorry for being naive, and then promises solutions such as privacy “controls,” “transparency” and better policy “enforcement.” And then he promises it again the next time. You can track his [apologies to Congress](#) and [promises to users](#) on the timeline below.

All the while, Facebook's access to our personal data increases and little changes about the way Zuckerberg handles it. So as Zuckerberg prepares to apologize for the first time in front of Congress, the question that lingers is: What will be different this time?

Robert Godwin Sr.

“Our **hearts go out** to the family and friends of Robert Godwin Sr., and we have a lot of work — and **we will keep doing all we can** to prevent tragedies like this from happening.”



September 2017

While revealing a nine-step plan to stop nations from using Facebook to interfere in one another's elections, noting that the amount of “problematic content” found so far is “relatively small.”

“I care deeply about the democratic process and protecting its integrity. ... It is a new challenge for internet communities to deal with



December 2007

After launching Beacon, which opted-in everyone to sharing with advertisers what they were doing in outside websites and apps.

“We simply did a bad job with this release, and I apologize for it. ... People need to be able to explicitly choose what they share.”

February 2009

After unveiling new terms of service that angered users.

“Over the past couple of days, we received a lot of questions and comments. ... Based on this feedback, we have decided to return to our previous terms of use while we resolve the issues.”

“We won't prevent all mistakes or abuse, but we currently make too many errors enforcing our policies and preventing misuse of our tools. ... This will be a serious year of self-improvement and I'm looking forward to learning from working to fix our issues together.”

March 2018

After details emerged about Cambridge Analytica taking user data.

“We have a responsibility to protect your data, and if we can't then we don't deserve to serve you. ... We will learn from this experience to secure our platform further and make our community safer for everyone going forward.”

Commission for deceiving consumers about privacy.

“I'm the first to admit that we've made a branch of mistakes. ... Facebook has always been committed to being transparent about the information you have shared with us — and we have led the internet in building tools to give people the ability to see and control what they share.”



July 2014

After an academic paper exposed that Facebook conducted psychological tests on nearly 700,000 users without their knowledge. (Honorary by Facebook COO Sheryl Sandberg)

“It was my mistake, and I'm sorry. ... There's more we can do here to limit the information developers can access and put more safeguards in place to prevent abuse.”

Related stories

[Facebook: Most users say they had public data 'strapped'](#)

[Facebook COO Sheryl Sandberg on data leak: 'I am really sorry, we are later'](#)

[As Facebook confronts data misuse, foreign governments might force real change](#)

[What if we paid for Facebook — instead of letting it spy on us for free?](#)

About this story

Photo/illustrations based on photos by Tony Avelay/Bloomberg News, Drew Angerer/Getty Images, Jeff Robinson/AP, Jim Westcott/Getty Images, Craig Ruttle/AP Photo/Getty Images, Stephen Lenz/Reuters, Jesse Garcia/Reuters, Richard Dowd/AP



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The Facebook ads Russians showed to different groups

Facebook has said these ads were created by the internet

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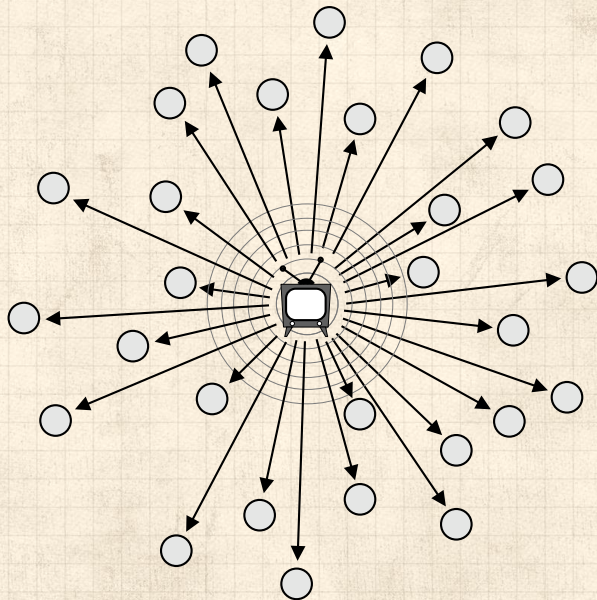
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# The hypodermic model of influence:



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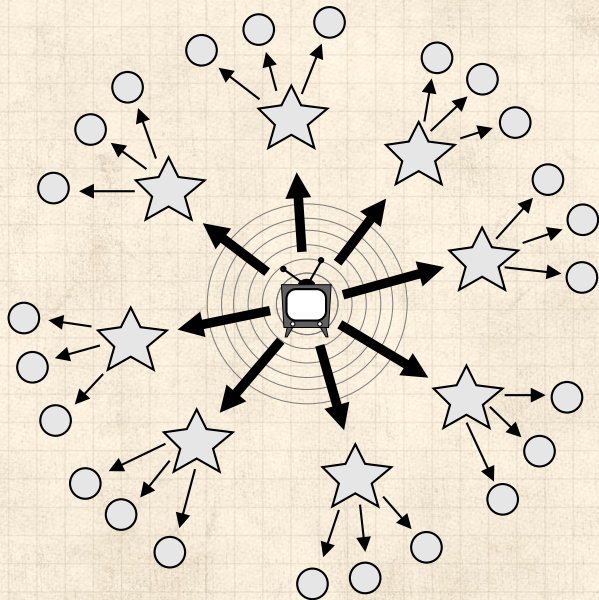
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# The two step model of influence: [2]



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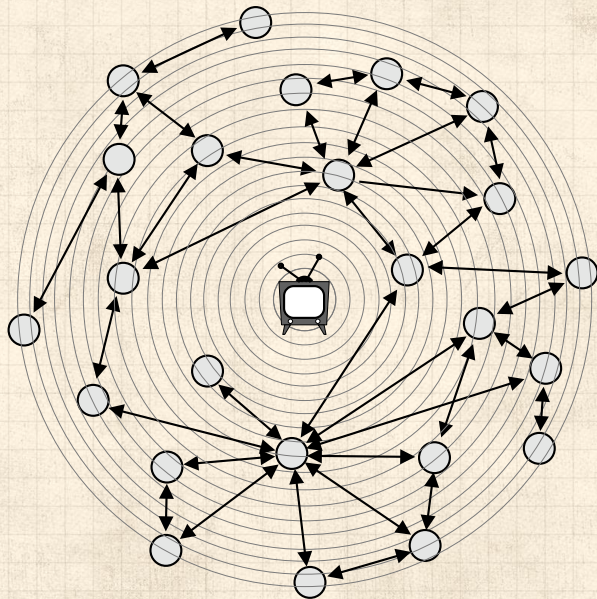
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# The network model of influence:



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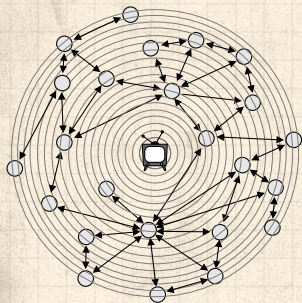
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# The network model of influence:



## How superspreading works:

Many interconnected, average, trusting people must benefit from both **receiving** and **sharing** a message far from its source.



“Influentials, Networks, and Public Opinion Formation” 

Watts and Dodds,

J. Consum. Res., **34**, 441–458, 2007. [5]

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# Things that spread quickly:

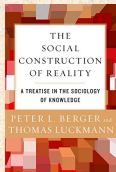


+ News ...


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


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


 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”.



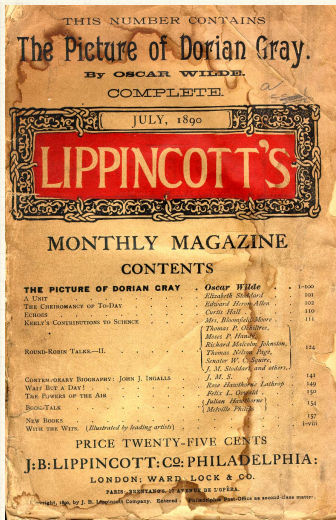
# Oscar Wilde, The Picture of Dorian Gray

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

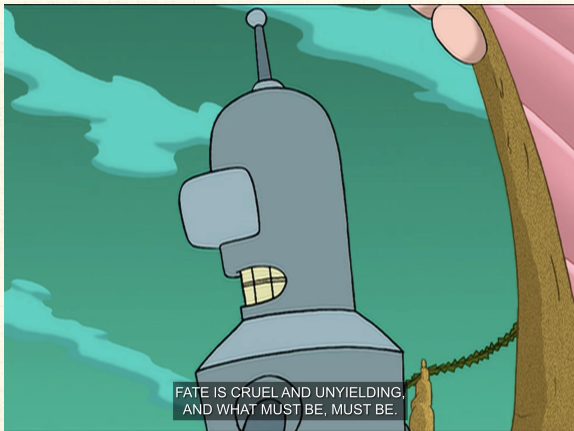


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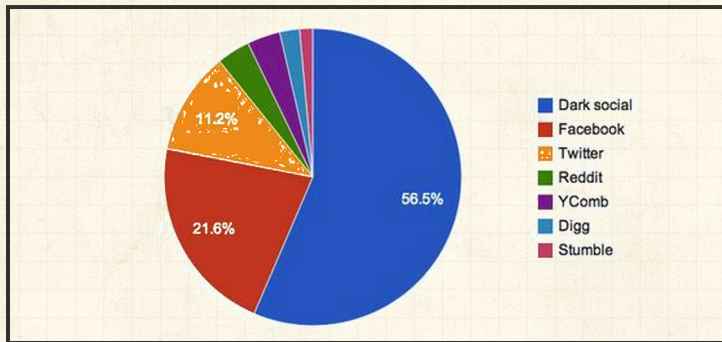
References

Also well understood by Bender:<sup>1</sup>  





<sup>1</sup>Futurama, S2E09 “Why Must I Be a Crustacean in Love?” 

## 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]”

 [Dark Social: We Have the Whole History of the Web Wrong](#)   
[Alexis Madrigal, The Atlantic, 2012-10-12]



# A completely made up pie chart:



Real  
Dark  
Social



Measurable  
Web  
stuff

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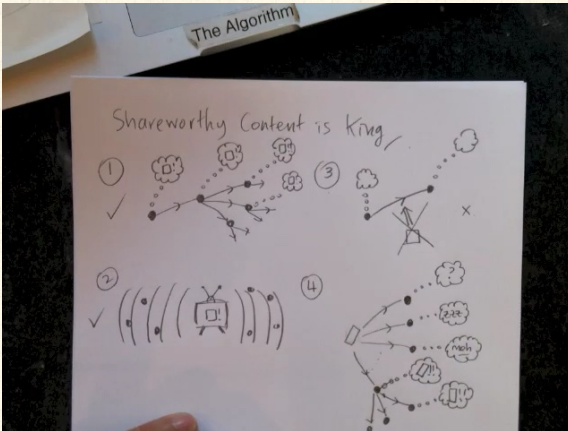



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## How to make things spread deeply



 And how to stop things spreading?



# Story wars:

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## Shareworthy content:

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.

## Stopping bad shareworthy content:

1. The truth is against an infinitude of adjacent narratives.
2. Build better spreading true stories.
3. Defend social interactions (“do you know who<sup>1</sup> your friends have been imitating?”)
4. Just keep trying.



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<sup>1</sup>The whomists are followers of MGGA

# 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.  
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- [3] T. Kuran.  
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World Politics, 44:7–48, 1991. pdf 
- [4] M. J. Salganik, P. S. Dodds, and D. J. Watts.  
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# References II

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- [5] D. J. Watts and P. S. Dodds.  
Influentials, networks, and public opinion formation.  
[Journal of Consumer Research, 34:441–458, 2007.](#) pdf 