Fame and fate: Why is global success so unpredictable?

Last updated: 2024/11/11, 14:10:59 EST

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

Prof. Peter Sheridan Dodds

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























Licensed under the Creative Commons Attribution 4.0 International

The PoCSverse Fame and fate: Why is global success so unpredictable? 1 of 33

Superstars

Superspreading



These slides are brought to you by:



The PoCSverse Fame and fate: Why is global success so unpredictable? 2 of 33

Superstars

Superspreading



These slides are also brought to you by:

Special Guest Executive Producer



On Instagram at pratchett_the_cat

The PoCSverse Fame and fate: Why is global success so unpredictable? 3 of 33

Superstars

Superspreading



Outline

The PoCSverse Fame and fate: Why is global success so unpredictable? 4 of 33

Superstars

Superspreading

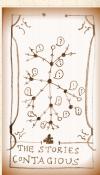
References

Superstars

Superspreading







The most famous painting in the world:



The PoCSverse Fame and fate: Why is global success so unpredictable? 6 of 33

Superstars

Superspreading



The dismal predictive powers of editors



The PoCSverse Fame and fate: Why is global success so unpredictable? 7 of 33

Superstars

Superspreading

References



Twelve ...

The completely unpredicted fall of Eastern Europe:



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

The PoCSverse Fame and fate: Why is global success so unpredictable? 8 of 33

Superstan

Superspreading





1. Sparks start fires.

The PoCSverse Fame and fate: Why is global success so unpredictable? 9 of 33

Superstars

Superspreading





- 1. Sparks start fires.
- 2. System properties control a fire's spread.

The PoCSverse Fame and fate: Why is global success so unpredictable? 9 of 33

Superstars

Superspreading





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

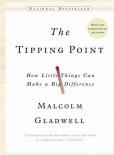
The PoCSverse Fame and fate: Why is global success so unpredictable? 9 of 33

Superstars

Superspreading







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

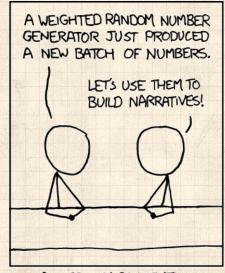
The PoCSverse Fame and fate: Why is global success so unpredictable? 9 of 33

Superstars

Superspreading



Reason 1—We are Homo Narrativus.



ALL SPORTS COMMENTARY

The PoCSverse Fame and fate: Why is global success so unpredictable? 10 of 33

Superstar

Superspreading



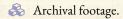
Reason 2—"We're all individuals!" [

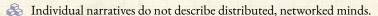


The PoCSverse Fame and fate: Why is global success so unpredictable? 11 of 33

Superstars

Superspreading







Reason 3—We are spectacular imitators



BBC/David Attenborough

The PoCSverse Fame and fate: Why is global success so unpredictable? 12 of 33

Superstars

Superspreading



Mistake 1: Success is due to intrinsic properties



The PoCSverse Fame and fate: Why is global success so unpredictable? 13 of 33

Superstars

Superspreading



Mistake 1: Success is due to intrinsic properties



it's just so disappointingly small

The PoCSverse Fame and fate: Why is global success so unpredictable? 13 of 33

Superstars

Superspreading



Mistake 1:

Success is due to intrinsic properties



Stolen in 1913, recovered in 1915.

The PoCSverse Fame and fate: Why is global success so unpredictable? 13 of 33

Superstars

Superspreading



Mistake 1: Success is due to intrinsic properties



Hidden during WWII.

The PoCSverse
Fame and fate: Why is global success so unpredictable?
13 of 33

Superstars

Superspreading



Mistake 1: Success is due to intrinsic properties



Repeatedly vandalised and attacked.

The PoCSverse
Fame and fate: Why is global success so unpredictable?
13 of 33

Superstars

Superspreading

References



See "Becoming Mona Lisa" by David Sassoon



48 songs 30k participants

The PoCSverse Fame and fate: Why is global success so unpredictable? 14 of 33

Superstars

Superspreading

References

Exp 1— weak social



Exp. 2—strong social



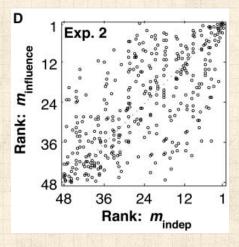


"An experimental study of inequality and unpredictability in an artificial cultural market"

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



Resolving the paradox:



Increased social awareness leads to Stronger inequality + Less predictability.

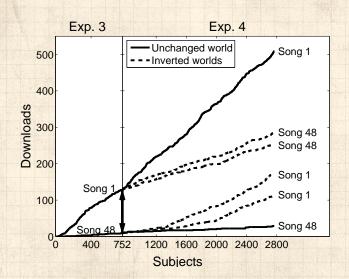
The PoCSverse Fame and fate: Why is global success so unpredictable? 15 of 33

Superstars

Superspreading



Payola/Deceptive advertising hurts us all:



The PoCSverse Fame and fate: Why is global success so unpredictable? 16 of 33

Superstars

Superspreading



Mistake 2:

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



The PoCSverse Fame and fate: Why is global success so unpredictable? 17 of 33

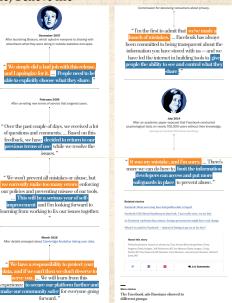
Superstars

Superspreading References



"This is truly the last time, believe me"





The PoCSverse Fame and fate: Why is global success so unpredictable? 18 of 33

Superspreading

References

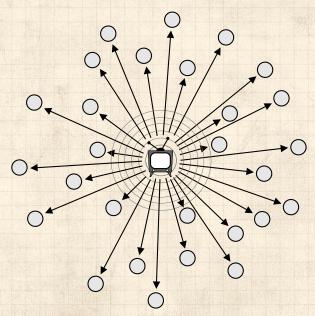


WaPo article

and protecting its integrity. ... It is a new

challenge for internet communities to deal with

The hypodermic model of influence:



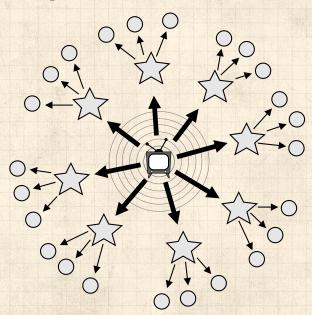
The PoCSverse Fame and fate: Why is global success so unpredictable? 19 of 33

Superstars

Superspreading References



The two step model of influence: [2]



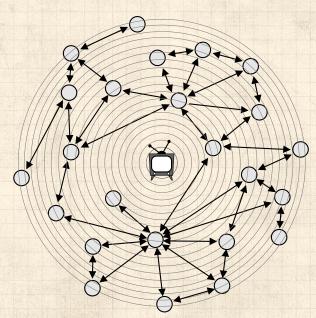
The PoCSverse Fame and fate: Why is global success so unpredictable? 20 of 33

Superstars

Superspreading



The network model of influence:



The PoCSverse Fame and fate: Why is global success so unpredictable? 21 of 33

Superstars

Superspreading References



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.



Superstars

Superspreading References

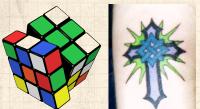


"Influentials, Networks, and Public Opinion Formation"

Watts and Dodds, J. Consum. Res., **34**, 441–458, 2007. ^[5]



Things that spread quickly:







+ News ...

buzzfeed.com 2:

The PoCSverse Fame and fate: Why is global success so unpredictable? 23 of 33

Superstars

Superspreading References





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

The PoCSverse Fame and fate: Why is global success so unpredictable? 24 of 33

Superspreading





"The social construction of reality: A treatise in the sociology of knowledge" **3**.
by Berger and Luckmann (1991). [1]

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

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

The PoCSverse Fame and fate: Why is global success so unpredictable? 24 of 33

Superspreading





Fate—from the Latin fatus: meaning "spoken".

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superstars

Superspreading





Fate—from the Latin fatus: meaning "spoken".



A Fate is talk that has been done. "It is written", fore-tell, pre-dict.

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superstars

Superspreading





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."

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superspreading





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.

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superspreading





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."

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superspreading





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.



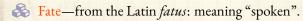
Fame—from the Latin fāma: meaning "to talk."



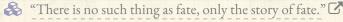
Fame is inherently the social discussion about the thing, not the thing itself.

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33





Fate is talk that has been done. "It is written", fore-tell, pre-dict.



Destiny is probablistic.

Rame—from the Latin fāma: meaning "to talk."

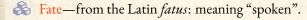
Fame is inherently the social discussion about the thing, not the thing itself.

Renown :: Repeatedly named, talked about. Old French renon, from re- + non ("name").

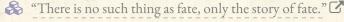
The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superstars





Fate is talk that has been done. "It is written", fore-tell, pre-dict.



Destiny is probablistic.

Fame—from the Latin fāma: meaning "to talk."

Fame is inherently the social discussion about the thing, not the thing itself.

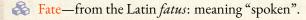
Renown : Repeatedly named, talked about. Old French renon, from re- + non ("name").

Réclame . "Clamo"—Proto-Indo-European: "to shout" (again).

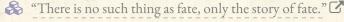
The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superstars





Fate is talk that has been done. "It is written", fore-tell, pre-dict.



Destiny is probablistic.

Rame—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".

The PoCSverse Fame and fate: Why is global success so unpredictable? 25 of 33

Superstars



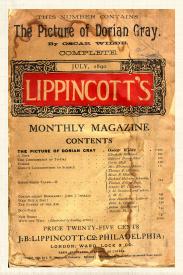


The PoCSverse Fame and fate: Why is global success so unpredictable? 26 of 33

Superstan

Superspreading



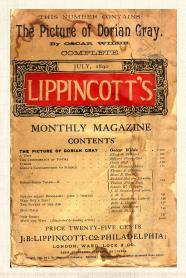


"There is only one thing in the world The PoCSverse Fame and fate: Why is global success so unpredictable? 26 of 33

Superstan

Superspreading





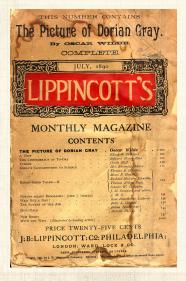
"There is only one thing in the world

worse than being talked about,

The PoCSverse Fame and fate: Why is global success so unpredictable? 26 of 33

Superstars





"There is only one thing in the world

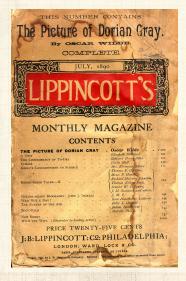
worse than being talked about,

and that is

The PoCSverse Fame and fate: Why is global success so unpredictable? 26 of 33

Superstars





"There is only one thing in the world

worse than being talked about,

and that is

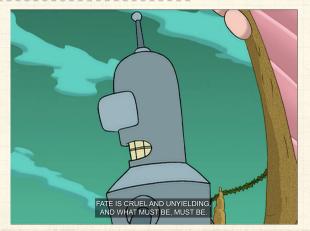
not being talked about."

The PoCSverse Fame and fate: Why is global success so unpredictable? 26 of 33

Superstar



Also well understood by Bender: 1

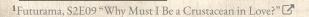


The PoCSverse Fame and fate: Why is global success so unpredictable? 27 of 33

Superstars

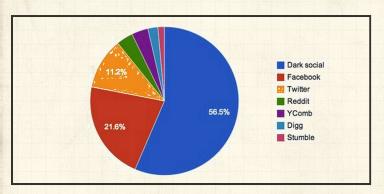
Superspreading





Spreading in the social wild:

The Dark Social Web



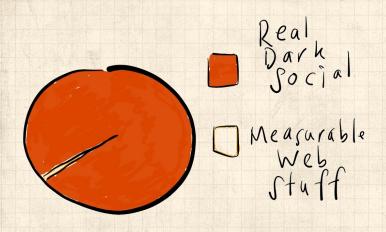
"The only real way to optimize for social spread is in the nature of the content itself. There's no way to game email or people's instant messages. There's no power users you can contact. There's no algorithms to understand. This is pure social, uncut. [sic]"

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

The PoCSverse Fame and fate: Why is global success so unpredictable? 28 of 33



A completely made up pie chart:



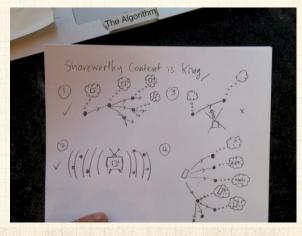
The PoCSverse Fame and fate: Why is global success so unpredictable? 29 of 33

Superstars

Superspreading



How to make things spread deeply





And how to stop things spreading?

The PoCSverse Fame and fate: Why is global success so unpredictable? 30 of 33

Superstars

Superspreading



Shareworthy content:

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars



Shareworthy content:

1. Build entities/messages/stories that have intrinsic and social value out in the Social Wild.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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:

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstan

Superspreading



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 who¹ your friends have been imitating?")

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstars

Superspreading



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 1 your friends have been imitating?")
- 4. Just keep trying.

The PoCSverse
Fame and fate: Why is global success so unpredictable?
31 of 33

Superstars

Superspreading



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 1 your friends have been imitating?")
- 4. Just keep trying.

The PoCSverse Fame and fate: Why is global success so unpredictable? 31 of 33

Superstar

Superspreading



¹The 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. 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.

Science, 311:854–856, 2006. pdf

The PoCSverse
Fame and fate: Why is global success so unpredictable?
32 of 33



References II

The PoCSverse Fame and fate: Why is global success so unpredictable? 33 of 33

Superstars

Superspreading

References

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

