

Voting, Success, and Superstars

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Principles of Complex Systems, Vols. 1, 2, 3D, 4 Fourever, V for Vendetta

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



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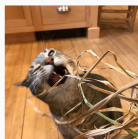
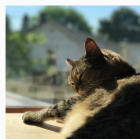
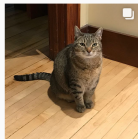
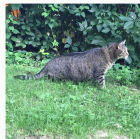
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Where do superstars come from?

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“The economics of superstars” 

S. Rosen,

Am. Econ. Rev., **71**, 845–858, 1981. ^[5]

Examples:



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Examples:



Full-time Comedians (≈ 200)



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Highly skewed distributions again...



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Rosen's theory:



Individual quality q maps to reward $R(q)$.



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Rosen's theory:

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- Two reasons:



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 1. **Imperfect substitution:**



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2. **Technology:**



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 Joint consumption versus public good.

 No social element—success follows 'inherent quality'.





“Stardom and Talent”

Moshe Adler,

American Economic Review, **75**, 208–212, 1985. ^[1]



“Consumption capital”: “Appreciation [of music] increases with knowledge. But how does one know about music? By listening to it, *and discussing it with other persons who know about it.*”





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Success can be purely a social construction





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 (How can we measure 'inherent quality'?)



Evidence from the web suggestions (Huberman et al.)

1. Easy decisions (yes/no) lead to bandwagoning
 e.g. jyte.com
2. More costly evaluations lead to oppositional votes
 e.g. amazon.com

 **Self-selection:** Costly voting may lower incentives for those who agree with the current assessment and increase incentives for those who disagree.



Score-based voting versus rank-based voting:



“A theory of measuring, electing, and ranking” [↗](#)

Balinski and Laraki,

Proc. Natl. Acad. Sci., **104**, 8720–8725, 2007. [2]



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“Aggregating partial, local evaluations to achieve global ranking” 

Laureti, Moret, and Zhang,
Physica A, **345**, 705–712, 2004. ^[4]



Model: participants rank n objects based on underlying quality q



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$$p_i(t) \propto v_i(t)^\alpha \text{ or } p_i(t) \propto q_i v_i(t)^\alpha.$$





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-  If $\alpha < 1$, correct quality ordering is uncovered





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-  Related to Adler's approach

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-  If $\alpha < 1$, correct quality ordering is uncovered
-  If $\alpha > 1$, some objects are never evaluated and mistakes are made...
-  Related to Adler’s approach
-  Brutal example of how the best things aren’t surfaced: As of 2025, Laureti et al.’s 2004 paper has 7 citations.



Dominance hierarchies



“Individual differences versus social dynamics in the formation of animal dominance hierarchies” ↗

Chase et al.,

Proc. Natl. Acad. Sci., **99**, 5744-5749, 2002. [3]



The aggressive female *Metriaclicha* zebra:



Pecking orders for fish...

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Dominance hierarchies

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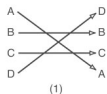
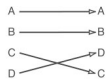
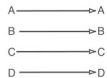
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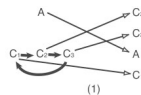
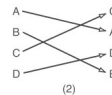
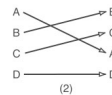
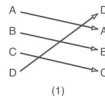
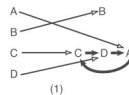
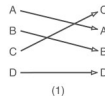
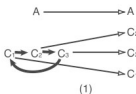
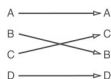
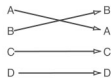
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Fish forget—changing of dominance hierarchies:

1st Hierarchy $\Rightarrow$ 2nd Hierarchy



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Dominance hierarchies

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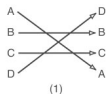
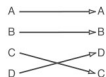
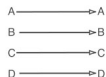
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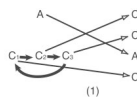
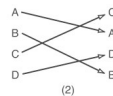
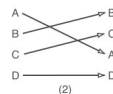
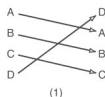
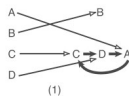
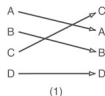
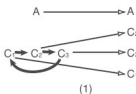
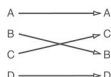
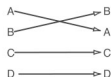
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1st Hierarchy → 2nd Hierarchy



22 observations: about 3/4 of the time, hierarchy changed



Dominance hierarchies

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Methods of Forming Hierarchies			
Size of set	Group assembly	Round-robin competition	
4	(23) (2) n=25	(9) (3) (3) (1) n=16	
5	(10) (1) n=11	(6) (1) (1) (2) (1) (1) n=12	



Group versus isolated interactions produce different hierarchies



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Music Lab Experiment



48 songs
30,000 participants

BAND NAME

SONG TITLE

NUMBER OF DOWNLOADS

[Help]	[Log off]	# of down loads
GROWTH PEOPLE: "names"		86
ACCEPT THAT "the r people"		52
LISTFORPEOPLE: "no way out"		45

multiple 'worlds'
Inter-world variability

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Can we estimate variability?

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 How probable is the world?

 Can we estimate variability?

 Superstars dominate but are unpredictable. Why?

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Music Lab Experiment

Music Lab - Song Selection - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://www.musiclab.columbia.edu/me/songs

	# of down loads	[Help] [Log off]	# of down loads	# of down loads
HARTSFIELD: "enough is enough"	20	GO MOREDECA: "it does what it told"	12	UNDO: "while the world passes"
DEEP ENOUGH TO DIE: "for the sky"	17	PARKER THEORY: "the sad"	47	UP FOR NOTHING: "in sight of"
THE THRIFT SYNDICATE: "2003 a tragedy"	20	MISS OCTOBER: "pink aggression"	27	SILVERFOX: "glitter"
THE BROKEN PROMISE: "the end in friend"	19	POST BREAK TRAGEDY: "horror"	14	STRANGER: "one deep"
THIS NEW DAWN: "the belief above the answer"	12	FORTIFYING: "tear"	24	FAR FROM KNOWN: "route 9"
NOONER AT NINE: "walk away"	6	THE CALEFACTION: "trapped in an orange peel"	20	STUNT MONKEY: "inside out"
MORAL HAZARD: "waste of my life"	8	SZMETRO: "lockdown"	17	DANTE: "this mystery"
NOT FOR SCHOLARS: "as seasons change"	27	SIMPLY WAITING: "best with the count"	16	FACING THROUGH: "with me last"
SECRETARY: "keep your eyes on the ballistics"	5	STAR CLIMBER: "tell me"	38	UNKNOWN CITIZENS: "telling over"
ART OF KAMELY: "seductive into, melodic breakdown"	10	THE FASTLANE: "if death do us part i don't"	31	BY NOVEMBER: "if i could take you"
HYDRAULIC SANDWICH: "separation anxiety"	20	A BLINDING SILENCE: "mines and mines"	17	DRAWN IN THE SKY: "top the ride"
EMBER SKY: "this upcoming winter"	25	SUM RANA: "the bolshoik boogie"	15	SELSAUS: "stars of the city"
SALUTE THE DAWN: "i am one"	13	CAPE RENEWAL: "hassleback work v1"	12	SIBRIAN: "eye patch"
RYAN ESSMAKER: "detour, the still"	14	UP FALLS DOWN: "a brighter burning star"	11	EVAN COLD: "robust downey j"
BEERBONG: "father to son"	12	SUMMERSWASTED: "a plan behind destruction"	17	BENEFIT OF A DOUBT: "run away"
HALL OF FAME: "best mistakes"	19	SILENT FILM: "all i have to say"	61	SHIPWRECK UNION: "out of the woods"

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References

Experimental Study of Inequality and
Unpredictability in an Artificial
Cultural Market



"An experimental study of inequality and
unpredictability in an artificial cultural market" 
Salganik, Dodds, and Watts,
Science, **311**, 854–856, 2006. ^[6]



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Experiment 1

Rank	Artist	Rank	Artist	Rank	Artist
1	THE KISS KISS	14	THE KISS KISS	28	THE KISS KISS
2	THE KISS KISS	15	THE KISS KISS	29	THE KISS KISS
3	THE KISS KISS	16	THE KISS KISS	30	THE KISS KISS
4	THE KISS KISS	17	THE KISS KISS	31	THE KISS KISS
5	THE KISS KISS	18	THE KISS KISS	32	THE KISS KISS
6	THE KISS KISS	19	THE KISS KISS	33	THE KISS KISS
7	THE KISS KISS	20	THE KISS KISS	34	THE KISS KISS
8	THE KISS KISS	21	THE KISS KISS	35	THE KISS KISS
9	THE KISS KISS	22	THE KISS KISS	36	THE KISS KISS
10	THE KISS KISS	23	THE KISS KISS	37	THE KISS KISS
11	THE KISS KISS	24	THE KISS KISS	38	THE KISS KISS
12	THE KISS KISS	25	THE KISS KISS	39	THE KISS KISS
13	THE KISS KISS	26	THE KISS KISS	40	THE KISS KISS

Experiments 2-4

Rank	Artist	Rank	Artist	Rank	Artist
1	THE KISS KISS	14	THE KISS KISS	28	THE KISS KISS
2	THE KISS KISS	15	THE KISS KISS	29	THE KISS KISS
3	THE KISS KISS	16	THE KISS KISS	30	THE KISS KISS
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13	THE KISS KISS	26	THE KISS KISS	40	THE KISS KISS



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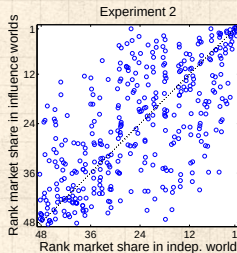
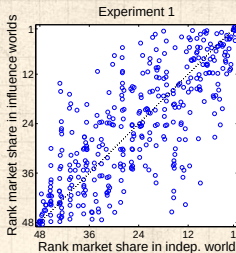
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Variability in final rank.



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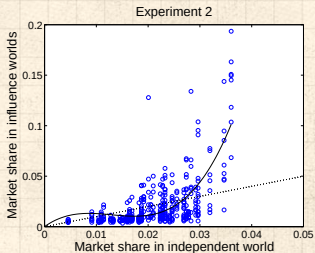
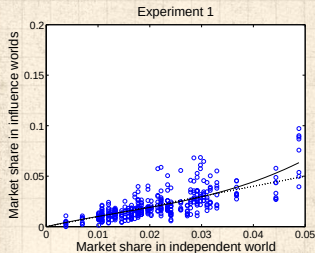
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Variability in final number of downloads.



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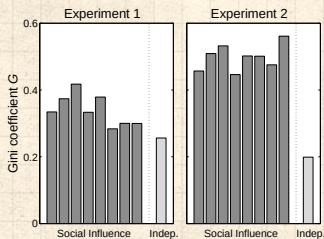
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Inequality as measured by Gini coefficient:

$$G = \frac{1}{(2N_s - 1)} \sum_{i=1}^{N_s} \sum_{j=1}^{N_s} |m_i - m_j|$$



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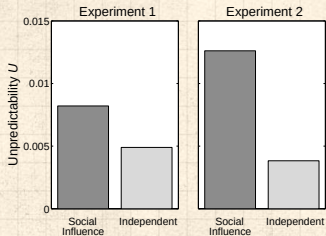
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Unpredictability

$$U = \frac{1}{N_s \binom{N_w}{2}} \sum_{i=1}^{N_s} \sum_{j=1}^{N_w} \sum_{k=j+1}^{N_w} |m_{i,j} - m_{i,k}|$$



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Sensible result:



Stronger social signal leads to **greater following and greater inequality.**



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Very peculiar observation:

- The most unequal distributions would suggest the greatest variation in underlying 'quality.'
- But success may be due to social construction through **following**. (so let's tell a story... [8, 9])



Music Lab Experiment—Sneakiness [7]

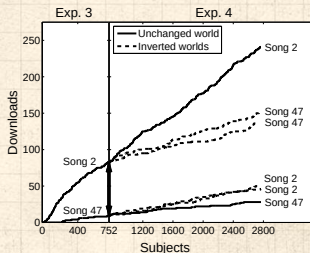
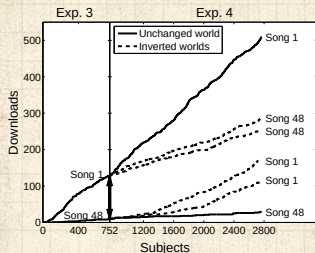
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Inversion of download count



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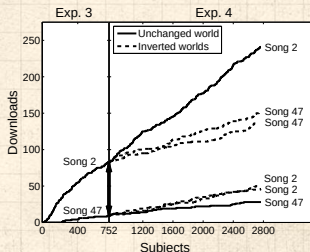
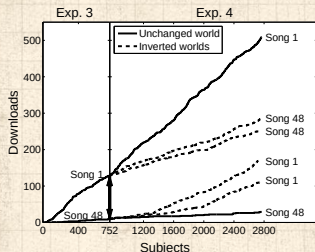
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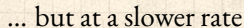
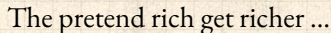
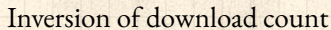
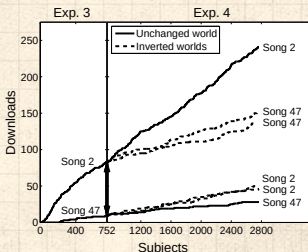
The pretend rich get richer ...



[7]

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References I

- [1] M. Adler.
Stardom and talent.
[American Economic Review](#), pages 208–212, 1985. pdf ↗
- [2] M. Balinski and R. Laraki.
A theory of measuring, electing, and ranking.
[Proc. Natl. Acad. Sci.](#), 104(21):8720–8725, 2007. pdf ↗
- [3] I. D. Chase, C. Tovey, D. Spangler-Martin, and
M. Manfredonia.
Individual differences versus social dynamics in the formation
of animal dominance hierarchies.
[Proc. Natl. Acad. Sci.](#), 99(8):5744–5749, 2002. pdf ↗
- [4] P. Laureti, L. Moret, and Y.-C. Zhang.
Aggregating partial, local evaluations to achieve global ranking.
[Physica A](#), 345(3–4):705–712, 2004. pdf ↗



References II

- [5] S. Rosen.
The economics of superstars.
[Am. Econ. Rev.](#), 71:845–858, 1981. pdf ↗
- [6] 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 ↗
- [7] M. J. Salganik and D. J. Watts.
Leading the herd astray: An experimental study of self-fulfilling prophecies in an artificial cultural market.
[Social Psychology Quarterly](#), 71:338–355, 2008. pdf ↗
- [8] C. R. Sunstein.
Infotopia: How many minds produce knowledge.
Oxford University Press, New York, 2006.



References III

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References

- [9] N. N. Taleb.
The Black Swan.
Random House, New York, 2007.

