What's the Story?

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

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Outline Storytellers Stories Conspiracy theories Power

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Typed by Pratchett the Cat:

7777777777777777777777777fffffv

Burning through stories for fuel in the Experimental Training Laboratory:

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Super Survival of the Stories:



- 🗞 Study of Agta, Filipino hunter-gatherers.
- Storytelling valued well above all other skills including hunting.
- Stories encode prosocial norms such as cooperation.
- Like the best stories, the best storytellers reproduce more successfully.

Лаі	or competing storytelling entities:
_ '	News.
8	Books, magazines.
8	Art.
8	Music industry.
8	Television, movie studios, Netflix, HBO, Disney.
8	Social media: Facebook, Instagram, Snapchat,
8	All sports.
8	Video games.

- & Religions, ideologies, belief systems, Freemasons, ...
- 🗞 Enduring coherent groups: Cultures, countries, cities, ...
- 🗞 Mathematics 🗹 (partial)

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The Desirability of

Storytellers Z, The

Atlantic,

Ed Yong,

2017-12-05.

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Pantheon C: The most memorable people of history

🗞 HPI: Historical Popularity Index.

Sconcept: Measure current importance of a figure based on a composition score derived from Wikipedia quantities.

What is HPI?

NPI stands for Historical Popularity Index. It is a simple an ad-hoc matric that aggregates information on a biography's online popularity. HPI based on the idea that frame needs to break multiple barriers, like those of time and language. HPI aggregates information on the age and attention received by biographies in multiple language editors of Wikegate to provide a summary statistic of their global popularity.

HPI is currently made of five components: the "age" of a biography's character (e.g. Jesus is more than 2.000 years od), number of Wikipedia language ditions in which the biography has a presence (1), the concentration of the pageviews received by a biography across languages (L'), the stability of pageviews over time (CV), and the number of non-figility pageviews received by that biography. We find that combining these metrics provides a more ensible ranking than using these metrics alone. To validate HPI, we previously showed that it correlates better with accomplishments than single metrics, when we focus on activities where individual accomplishments are measurable (e.g. these, Orympic Swimmin, Tennis, formula One).

While being an ad-hoc metric, HPI also attempts to correct for the internet's English bias. By using non-English page views, and giving a premium to biographies that have a presence in multiple languages, and whose pageviews are not concentrated in only a few of them, HPI trics to move away from a ranking dominated by English pageviews.

Where can I submit a suggestion?

You can use the following form to suggest correction to Pantheon's data. Pantheon's atomic unit of data is the biography, so all corrections should be communicated as corrections to a biography (everything else is an aggregate).

			info				Birth			place					Stats				
**		Name	Occupation	Birth	Death	Gender	City	Country	City	Country	L.0	L. 0	PVze 0	CY 0	HPI 2024		Rank 2024		Å
1	63	Mahammad	RELIGIOUS	570	632	Male	Mecca	Saudi Arabia	Medina	Saudi Arabia	210	26.31	6.2M	3.72	100.00	98.85	1	1	
2	狎	Isaac Newton	PHYSICIST	1643	1726	Male	Woolsthorpe- by- Colsterworth	United Kingdom	Kensington	United Kingdom	225	29.77	3.3M	3.77	98.73	98.35	2	2	
3		Genghis Khan	MILITARY PERSONNEL	1162	1227	Male	Khenti Mountains	Mongolia	Vinchuan	China	170	26.45	3.3M	2.00	97.80	95.55	3	4	
4	2	Jesus	RELIGIOUS	4 8C	33	Male	Herodian kingdom	tsrael	Jarusalem	tirael	265	17.96	5.3M	6.26	97.30	95.89	4	3	
5	à.	Leonardo da Vinci	INVENTOR	1452	1519	Male	Anchiano	italy	Clos Lucé	France	233	18.54	4.0M	5.30	96.43	95.48	5	5	
6	F	Ludwig van Beethoven	COMPOSER	1770	1827	Male	Bonn	Germany	Vienna	Austria	203	24.93	2.7M	3.55	96.04	95.23	6	8	
7	I.	Aristotle	PHILOSOPHER	384 8C	321 BC	Male	Stagira (ancient city)	Greece	Chalkis	Greece	215	20.43	2.8M	4,74	95.87	95.24	7	6	
8	T	Plato	PHILOSOPHER	427 8C	347 BC	Male	Classical Athens	Greece	Athens	Greece	210	20.64	2.6M	4.79	95.58	95.54	8	7	
9		Marco Polo	EXPLORER	1254	1324	Male	Venice	Raly	Venice	Raly	174	26.09	1.5M	3.16	95.49	94.60	9	2	
10	de.	Galleo Gallei	ASTRONOMER	1564	1642	Male	Pisa	Italy	Arcetri	Raly	198	20.00	2.7M	4.59	95.09	94.55	10	11	
11	1.	Napoleon	POLITICIAN	1769	1821	Male	Ajaccio	France	Longwood, Saint Helena	Saint Helena, Ascension and Tristan da Cutha	205	12.49	1214	6.08	94.95	94.47	11	12	
12		Socrates	PHILOSOPHER	470 BC	399 DC	Male	Nopece	Greece	Athens	Greece	195	19.64	2.5M	4.67	94.88	94.34	12	13	
13	195	Adolf Hitler	POLITICIAN	1889	1945	Male	Braunau am Inn	Austria	Führerbunker	Germany	234	15.08	8.9M	6.02	94.59	94.10	13	14	

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The famous are storytellers—Japan:



For people born 1900-

http://pantheon.media.mit.edu/treemap/country_exports/JP/all/1900/2010/H15/pantheon

The famous are storytellers—United States:

VISUALIZATIONS	RANKINGS PEOPLE	PANT HEE		METHODS	5 API ABOUT
Hyou us	e the Pantheon dataset, please cite: Yu, A. Z., et	al. (2016). Pantheon 1.0, a manually verified dataset of a	plobally famous biographies. Scientific D.	ta 2:150075. doi: 10.1038/sdat	ta2015.75
	Who are the glob	ally known people born with		ed States*?	8* f 🛩 🛛
VISUALIZATIONS		Total Exports: 1,816 individua		with Wrestler	RANKINGS
TREEMAPS	Actor	Singer	Physicist Chemist ^{For}	wrester	1. Martin Luther King, Jr. SOCMLACTIVISTIE 1829 (2849)
by cultural domain				1.60% 0.53%	2. Elvis Presky
by city				Athlete	SINGER b. 1925 (28.62)
Of a Cultural Domain by country			3.19% 2.81%	0.66N 1.11N	3. Marilyn Monroe Actor, 6 1921 (2635)
by city			Biologist	Baskettol	4. Walt Disney
MATRICES		9.03%	1000 0775 00	na Pisiyat	4. Wat Disney PRODUCER 5 1921 (28.17)
SCATTERPLOTS		Musician	Computer Physician	2.445	5. Jimi Hendrix
MAPS		inducidiri	0.97% 0.94% 0.2	x 2.31% ^{3.176}	MUSICAN, E 1M2 (27:93)
			Writer	0.20%	6. Andy Warhol
PARAMETERS				0.64%	ARTIST.b. 1920 (27.92)
				5% G.4KK	7. Bruce Lee
BIRTH COUNTRY*	37.44	0/ 8.43%	5.29%	1.51X	8. Bob Dvlan
United States	57.44	- /0	Politician	Sector Over	MURCHN, 6 1M1(27.76)
CITY	Film Director	Attal Doors		Astronaut	9. John F. Kennedy
All	3.525	038 0116 0338	1.548	0.09%	POLITICIAN, 8: 2917 (27.44)
FROM TO				1950 1970 1990 2010	10. Stanley Kubrick RUMDRECTOR. 5 1926/07:521
1900 2010	-4000 -2000 -900 -700 -500 -300	-100 100 300 500 700 900 1100 1	300 1500 1700 1850 1910 193	0 1950 1970 1990 2010	Go to Full Ranking List
DATA					GO to Parkarking List
Pantheon					

For people born 1950-

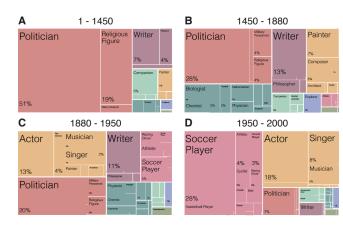
http://pantheon.media.mit.edu/treemap/country_exports/US/all/1950/2010/H15/pantheon 🖉

Storytellers win:



For people born 1950-

http://pantheon.media.mit.edu/treemap/country_exports/US/all/1950/2010/H15/pantheon



https://www.media.mit.edu/projects/pantheon-new/overview/

It's all about algorithms (stories):







by Brian Boyd (2010). [4]

"The Storytelling Animal: How Stories Make Us Human" **a** by Jonathan Gottschall (2013).^[12]

(Sir Terry) Pratchett's C Narrativium C:



- "The most common element on the disc, although not included in the list of the standard five: earth, fire, air, water and surprise. It ensures that everything runs properly as a story."
- little narrativium goes a long way: the simpler the story, the better you understand it. Storytelling is the opposite of reductionism: 26 letters and some rules of grammar are no story at all."
- 🍪 "Heroes only win when outnumbered, and things which have a one-in-a-million chance of succeeding often do so."

Game of Thrones, S6E06: The Iron Throne

"What unites people? Armies? Gold? Flags?¹ Stories. There's nothing in the world more powerful than a good story. Nothing can stop it. No enemy can defeat it."



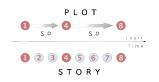
1 Character is the shortcut to story

Stories are the essence of ... oh no, no, no ...



Simple Definitions:

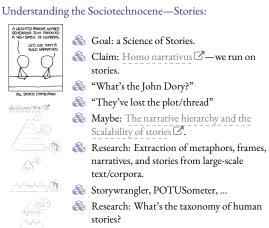
- Story 🖉: a laying out of a temporal sequence of events.
- Time is a great storyteller" (Irish proverb)
- 🗞 Events may be any balance of real and imagined.
- & Narrative \equiv Story.
- Plot C: Essential sequence of a story's elements.²



\lambda Plot = Algorithm

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²By DDDDDD — Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=34054522



 \bigotimes Maybe: Stories \leftrightarrow Algorithms

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Algorithms are everywhere:

- 🗞 Communication/Language.
- Economic systems (Shiller: "Narrative Economics" [19])
- 🗞 Legal systems.
- Social norms, customs, cultures.
- Food: growing, harvesting, preparing, distribution, ...
- Safety codes and protocols
- 🚳 Military.
- 🗞 Stories ...

Why adjacent narratives exist and untrue stories What's the Story 21 of 79 flourish:

1/4. A real story is never recorded and retold completely

🚳 Impossible to record every detail.

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- Recording entails compression to scale of medium (narrative hierarchy).
- Story logic will be favored, and seemingly irrelevant aspects discarded.



Why adjacent narratives exist and untrue stories flourish:

4/4. Character is the short cut to story

- The barely implausible can be believed if the character can make it so.
- A believe-to-be evil character can do anything.
- 🗞 Iterate between character and story to make the character fixed.



Algorithms, recipes, stories, ...



"The Code Economy: A Forty-Thousand Year History" **a** by Philip E Auerswald (2017).^[2]

Algorithms to Live By COMPUTER SCIENCE

"Algorithms to Live By" **3**, 🗹 by Christian and Griffiths (2016).^[8]



"Once Upon an Algorithm" 🧕 🗹 by Martin Erwig (2017).^[11]

Also: Numerical Recipes in C $^{[16]}$ and How to Bake $\pi^{[7]}$

Adjacent narratives C—why mistruths and conspiracy theories C exist and flourish:













Why adjacent narratives exist and untrue stories What's the Story flourish:

2/4. The infinitude of adjacent stories will afford "better" stories

- Better = More engaging, more motivating to spread, more durable under spreading.
- Better stories exist for truthful recorders and retellers (journalists).



Why adjacent narratives exist and untrue stories flourish:

3/4. The infinitude of adjacent stories means "better" stories exist for those who would disinform

- Adjacent stories may be truth-limited and/or falsehood-bearing.
- There may exist adjacent stories that conform to a world view/ideology.
- Even the seemingly non-adjacent must have some plausibility (Pizzagate).



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1999 Gallup poll: 🗹

- 🍪 6% of Americans said the lunar landings were fake.
- s 5% were undecided.
- 🗞 Video replay 🖫
- "The Comments, the comments, …"

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Stories	JK Rowling doesn't exist: conspiracy theories the internet	Stories
Conspiracy theories	· · · · · · · · · · · · · · · · · · ·	Conspiracy theories
Power	can't resist 🗹, The Guardian, 2017-10-27:	Power
Taxonomy	Highlights:	Taxonomy
Essence	le Earth is flat. https://www.tfes.org 🗹.	Essence
Emotional Arcs		Emotional Arcs
Moving ahead	left The Beatles never existed:	Moving ahead
References	http://www.thebeatlesneverexisted.com 🗹	References
	Per the title, JK Rowling doesn't exist.	

Q. "Is it possible that a person can write six thick books that are translated into 55 languages and sell more than 250 million copies in less than 10 years? - Nina Grünfeld Z" A. "Yes. Yes it is."

\bigotimes Phantom time hypothesis \square :

- The years 614-911 AD never existed.
 - Straight up jump of 297 years orchestrated by a first millennium cabal.
 - The year 2017 AD is really 1820 AD.
 - Good to know.

Finland does not exist:

e Real Map: The Secret Rehind Fin

- Pope Holy Roman Emperor Otto III (@TheBoss37), Pope Sylvester II (@PSly2) wanted to live in 1000 AD, legitimize power.
- Crushed by reality: Records of solar eclipses, comets, dendrochronology.

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Stories influence people, for good or bad:

- But representation of good is accepted as real, representation of bad is "just entertainment"
- Columbine, references to Natural Born Killers (NBK)
- 🚳 Natural Born Killers copycat crimes 🗹
- Aurora, Colorado shooting 🗹 (Joker)

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Story Wars:



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🗞 Nicholas Hénin 🗹, French Journalist, held captive for 10 months 2.

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Abso	ence of story, meaning, sense:
Lac	Vegas, 2017/10/01:
~	60 murdered, over 400 injured, 1000 bullets.
	Marked the lowest point ever on the English Twitte Hedonometer 🖓 at the time.

- ter
- Why did the Las Vegas shooter do what he did?
- Why have we forgotten about it?

Stories influence people, for good or bad:

- Parasocial relationships C (Cosplay)
- \lambda Allusionist 82. A Novel Remedy 🗹
- Agatha Christie type murder mysteries: A salve post the Great References War.
- Representation matters—possible future paths (narrative hodology 🗹)

"The Written World: How Literature Shaped Civilization" **a**, C by Martin Puchner (2017).^[17]

We are what we read (NYT)

"Storytelling is as human as breathing. When fabulation intersected with writing, stories were empowered to propagate themselves in society and around the world as civilization-forming "foundational texts.""

- 🗞 NYT review has a flicker of concern at the end that stories can be used for bad ..
- 🗞 Common strawman frame: Stories as lightweight entertainment
- 🚯 Not lighting up Google Scholar 🗹
- BBC, strawfree: How stories have shaped the world

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Stories make us do all kinds of things:

The Comet Ping Pong Gunman Answers Our Reporter's Questions: 🗹



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3 "According to court documents, Mr. Welch said he had come armed to help rescue the children.'

- "The intel on this wasn't 100 percent," he said."
- He said he did not believe in conspiracy theories, but then added that the Sept. 11, 2001, attacks needed to be re-examined. He has listened to Alex Jones, whose radio show traffics in conspiracy theories and who once said that Mrs. Clinton "has personally murdered and chopped up" children. "He's a bit eccentric," Mr. Welch said. "He touches on some issues that are viable but goes off the deep end on some things.""

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and this is [BLEEP], like they did not understand anything. And I did understand why we are so bad. It's just because in France we don't know how to write TV series properly.

Just because we have no imagination, we cannot just tell beautiful stories, create beautiful characters, beautiful heroes.

And this is what we have to do because in our world, in our societies what do people want? They want to become heroes. They want to be famous. They want to be, to be recognized.

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From the end of the interview: NICOLAS HENIN: No, it was just like in a movie. And, by the way, even the

people going to Syria, joining ISIS in Syria to fight, even these people see himself as movie characters. They play their own movie. This is why I think that the most powerful way to fight ISIS are not bombs. It is to kill the narrative. We have to write another movie. We have to build other heroes. And this is why I believe that the French are making big mistakes in the ways they, they fight ISIS.

We created, for instance, accounts on the social media named "Stop Jihadism,"

[BROOKE LAUGHS]





The Attack on the United States Capitol 🗹



Phockstein for The Washington Pos

Washington Post's massive analysis 🗹 Red Flags, Bloodshed, Contagion

Senate Chaplain Barry Black:

"These tragedies have reminded us that words matter, and that the power of life and death is in the tongue."

Massive informational misdirection as a cognitive denial of story:

_

"How the Chinese government fabricates social media posts for strategic distraction, not engaged argument"

King, Pan, and Roberts, American Political Science Review, , , Forthcoming.^[15]

Make the truth a needle in a haystack

- Trump's Reality Distortion Field **Z**, http://www.onthemedia.org
- Surkov turned Russian politics into a bewildering constantly changing piece of theater. He sponsored all kinds of groups, ... no one was sure what was real or fake. ... it is a strategy of power that keeps any opposition constantly confused.'

Stories generated the first surveillance state:



Conspiracy theorie Power

🗞 Low tech, low cost.

- lnfrastructure maintained in the Social Wild by storytellers and storybelievers.
- Omnipresence and omniscience: The end of privacy.

Defend the Story:

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The Ten Commandments:

I am the LORD thy God No other gods before me No graven images or likenesses Not take the LORD's name in vain Remember the sabbath day

Honour thy father and thy mother Thou shalt not kill Thou shalt not commit adultery Thou shalt not steal Thou shalt not bear false witness Thou shalt not covet

Operating systems:

Windows: "No other installations before me"

Propaganda

"If you're looking to understand what's actually happening in this country, always assume the opposite of whatever they're telling you on the big news stations," - Tucker Carlson

y?			
ories			

Defend your mind:

If a storyverse—whether it be through storytellers, groups, books, movies-tells you that all other stories are wrong, then that storyverse is false.

Book (story) burning ☑ (451°F)



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The American Dream = Rags to Riches The story that anyone can become King or Queen.

- Story of individual, not the collective.
- But we know about fame and success:
- The presence of outsized fame in a social system means social imitation is a driver of value.
- Stories of societies can only hold if they have been and remain believable.
- "Entertaining beliefs in economic mobility": Effort to understand if rags to riches stories in popular culture affect people's lives. [14]

If not Trump, what? C, David Brooks, New York Times,

"We'll probably need a new national story. Up until now, America's story has been some version of the rags-to-riches story, the lone individual who rises from the bottom through pluck and work. But that story isn't working for people anymore, especially for people who think the system is rigged."

"I don't know what the new national story will be, but maybe it will be less individualistic and more redemptive. Maybe it will be a story about communities that heal those who suffer from addiction, broken homes, trauma, prison and loss, a story of those who triumph over the isolation, social instability and dislocation so common today."

erse Story?		The PoCSverse What's the Story 48 of 79
		Storytellers
	Claim: Stories must have "real" substance to endure over	Stories
theories	generations ³	Conspiracy theo
	Enormous disasters: Fabrications of real experiences.	Power
	🗊 Plain old making stuff up: A million little pieces 🖉 Oprah	Taxonomy
	will get you.	Essence
Arcs	 Wikipedia's has a list of famous fake memoirs 2. 	Emotional Arcs
ad	📦 Expansive plagiarism: How Opal Mehta Got Kissed, Got	Moving ahead
	Wild, and Got a Life 🗹.	References
	#kudos	
	🜍 Self-plagiarism and more standard badness: Jonah Lehrer 🗹.	
	Amazingly: Made up Bob Dylan quotes.	
	🗊 Lance Armstrong. Also got to meet Oprah.	

🗞 Enormous power: Fiction that speaks to real experiences.

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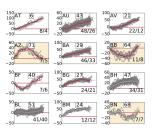
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"The game story space of professional sports: Australian Rules Football" Kiley, Reagan, Mitchell, Danforth, and Dodds. Physical Review E, **93**, 052314, 2016. ^[13]



Sports = Spontaneous story producing systems

200 AA 2 100	20 0 -20 -40 -40 -40	200 150 100 50 0 1/0.53	40 20 -20 -20 -10 -10 -10 -10 -10 -10 -10 -10 -10 -1	80 40 20 0 7/4.0	150 100 50 25/15.13
AG 41	40 40 20 -20 48/31.56	100 AI 21 50 22/15.01	40 20 -20 -20 -20 29/19.8	¹⁰⁰ 50 50 46/32.1	150 100 50 0 19/13.8
50 AM 13 0 32/23.33	40 AN 65 -20 34/25.59	⁴⁰ AO 53 0 19/14/34	50 AP 40 0 -50 7/5.46	AQ 49 -20 -34/26.54	100 AR 34 50
45 47 34/28.26	100 AT 42 50 21/18.12	150 AU 4 50	50 AV 61	41/36.45	20 AX 55 20 26/23.16
AY 26 50 36/32.18	100 AZ 16 50 19/17.41	100 50 25/22.95	60 40 20 0 37/34.16	200 150 100 50 3/2.79	50 24/22.44
0 50 50 35/32.98	100 50 0 24/22.62	40 8G 37 20 24/23.08	100 BH 15 50- 3/2.94	100 50 0 35/34.41	50 50 19/18.76
40 88 14/13:85	⁴⁰ BL 158 0 20/29/29.28	100 50 0 20/20.66	100 BN 25 50 	50 50 0 13/13.83	20 20 20 20 20 27/28.95
50 BQ 5 50 50 6/6.47	40 20 20 20 20 20 20 20 20 20 20 20 20 20	20 85 69 4 -20 11)11.89	150 50 50 -50 -7/7.66	100 50 0 14/15.39	50 BV 66 13/14.3
60 40 20 0 19/21.24	150 BX B 50 9/10.1	40 BY 63	40 BZ 68 0 -20 7/6.05	40 20 19/22.2	100 50 17/20.17
CC 39 20 25/29.73	40 20 20 20 20 20 12/14.69	150 100 CE 11 50 -50 10/12.69	50 0 26/33.43	100 50 50 50 100/12.88	50 0 14/18.46
40 40 20 25/33.73	40 20 20 20 13/17.8	⁴⁰ CK 62 0 19/26.26	100 CL 32 50 0 -50 11/16.68	100 CM 6 50 50 50 8/12.95	50 0 12/20.74
40 20 20 20 20 20 20 20 20 20 20 20 20 20	40 20 0 20 15/28.25 20 30 60 90120	40 20 20 20 20 20 20 20 20 20 20 20 20 20	100 CR 23 50 -50 -50 -50 -50 -50 -50 -50 -50 -50	100 50 0 -50 -50 -50 -50 -50 -50 -50 -50	

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The "I wonder who wrote this?" Great Man Theory:

"The Power of Myth" **3**,

by Campbell and Moyers (1991). [6]







"The Hero with a Thousand Faces" 🧕 🗹 by Joseph Campbell (2008).^[5]

Highly influential but it's a trap!



🚳 9 acts.

- Someone important to the main characters gets toasted in the second act, blah, blah.
- 🗞 Believes irony is key.
- Logline = one or two sentence summary.
- logline fails to be a summary of logline.



The taxonomy of stories:

The Clever Fox (Other Animal) 1-69

Other Wild Animals 70-99 Wild Animals and Domestic Animals 100-149

Supernatural or Enchanted Wife (Husband) or Other Relative 400-459

Wild Animals and Humans 150-199

Other Animals and Objects 220-299

Domestic Animals 200-219

 TALES OF MAGIC 300-749 Supernatural Adversaries 300-399

Wife 400-424

Husband 425-449

Brother or Sister 450-459 Supernatural Tasks 460-499

Supernatural Helpers 500-559

ANIMAL TALES 1-299 Wild Animals 1-99

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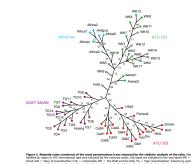
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Abello, Broadwell, and Tangherlini, Communications of the ACM, 55, 60-70, 2012. [1]

- historical example from the Danish materials, no one has yet classified (according to the ATU index) the several thousand fairy tales in the collections of the Danish Folklore Archive (http://www.dafos.dk (2), nor does it seem anyone ever will."
- Similar of a system in which the complexities of a folklore corpus can be explored at different levels of resolution, from the broad perspective of "distant reading" down to the narrow perspective of traditional "close reading." 🗷 '

"The phylogeny of Little Red Riding Hood" 🗹 Jamshid J. Tehrani, PLoS ONE, 8, e78871, 2013. [21]



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We use neat stories to explain everything from sports matches to symphonies. Is it time to leave the nursery of the mind?"

The story trap 🗹 by Philip Ball, 2015-11-12

line with the ultimate intelligibility of the universe will be determined not so much by the capacity of our minds to formulate the appropriate concepts and equations, but by whether we can find a meaningful story to tell about it."

Seven "good" stories?:



Conspiracy theorie CHRISTOPHER BOOKER A

Seven Gateways to the Underworld (?)

Note that the Monster ×2 and the Thrilling escape from Death (plot).

by Christopher Booker (2005).^[3]

- 🗞 Rags to Riches (plot).
- 🚳 The Quest (plot).
- 🗞 Voyage and Return (plot).
- S Comedy $\times 2$ (plot but really structure).
- Tragedy ×3 (plot).
- 🗞 Rebirth (plot).
- The Dark Power: From Shadow into Light (master structure).

Storvtellers "The Seven Basic Plots: Why We Tell Stories" **3**, Power

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"Computational folkloristics" 🗹

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🗞 Academic area formally Moving ahead started around 1900. References

🗞 Aarne–Thompson classification systems

Folkloristics:

🚳 Motif-based taxonomy. 🗞 Online classification database 🗹

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The taxonomy of stories:

Fundamental arcs:

- 🚳 Kill the Monster.
- Rags to Riches (and Riches to Rags—*Metamophosis*).
- lourney/Odyssey: Search for a salvation, a "Holy Grail".

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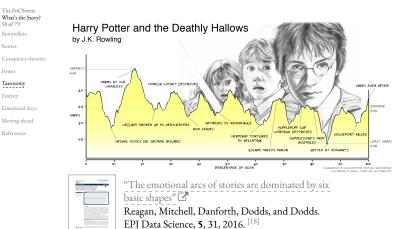
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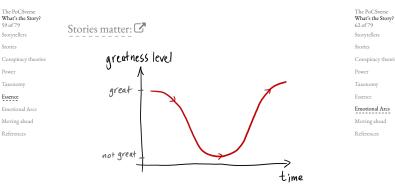
- 🗞 Romance.
- 🗞 Narratives in Left Nullspace: Again, All Stories of The Many.

What about comedies?

Stories are algorithms for life:

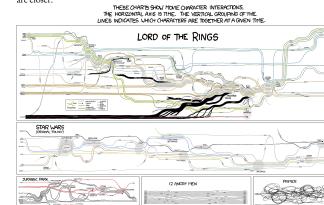
🗞 Comedies are not in themselves a story, but a way of telling stories.





- 🚳 Used by Reagan and Bush in 1980.
- Template used by many others including Bill Clinton.

Emotional arcs are not plots. Temporal character interaction networks are closer:



"Plotted: A Literary Atlas" 🧕 🗹 by Andrew DeGraff (2015).^[9]

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http://www.andrewdegraff.com/moviemaps/

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🗞 Chekhov's gun 🗹	Stories
🗞 Chekhov's Chekhov's gun	Conspiracy theor
🗞 Chekhov's Chekhov's gun	Power
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- A Chekhov's gun

Rules of Story:

	Gun	Cat	Razor	Law
Checkov's	If a gun is introduced in the first act, it must be fired by the third.	If a box is introduced in the first act, a cat must sit in it by the third	The simplest way to fire a gun is to pull the trigger	Every gun in a play will be fired
Schrodinger's	You can't know if a gun is loaded, or not, until the trigger is pulled	An unopened box may contain a dead cat, or an alive one, and you won't know until you open it	An unopened box may contain the solution to your problems	You can't know that things will go wrong, until they do
Occam's	The simplest way to kill off a character is to shoot them	If you hear a strange noise at night, it's probably a cat	The simplest explanation is probably the correct one	Everything that can be explained, will be explained
Murphy's	Any gun that can go off, will go off	Any box that can contain a cat, will contain a cat	Anything that can be simple, will be simple	Anything that can go wrong, will go wrong

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- Provide dynamic paths and trajectories. 🚳 If this, then that. 🗞 Convey and reinforce how to behave, how not to behave.
- Full ecology of stories = Competing, self-defending operating system for people's minds.

Proverbs as algorithms (hero: Wolfgang Mieder \square):

- Pride cometh before the fall."
- A stitch in time saves nine."
- & "Look before you leap."

Homo narrativus:

- Anti-aphorism: The one who hesitates is lost."
- Winderstanding randomness: "Shit happens"

The boiled-down essence of stories:

The three fundamental events of (non-clone) life:

- A Hatchings, Matchings, and Dispatchings.
- Stories encode survival algorithms.
- 🗞 Survival algorithms for individuals and groups.
- Dynamic paths: the true, the possible, the unlikely.
- The unifying theme of existence is existence.

https://xkcd.com/657/

A Science of Stories?

Stories are everything⁴

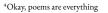
- 🚳 Maybe? yes?
- Stories ∼ Characters* + Time.
- One of the most important, dangerous, enjoyable terrifying things we can study.
- a Essence: Bare survival to flourishing ("Danger Will Robinson")

We talk about and study stories everywhere but ...

- 🛞 We don't have a central place academically
- Departments of: English, history, political science, folklore, cognitive sciences, arts, musicology, communication, ...

We're we are now:

SOCKS: Science of Online Corpora, Knowledge, and Stories (\$20M, 2023-)





"George Green and physics" 🗹 Freeman Dyson, Physics World, 6, 33, 1993.^[10]

- 🍪 "... scientific revolutions are more often driven by new tools than by new concepts.
- 🗞 Thomas Kuhn in his famous book, The Structure of Scientific Revolutions, talked almost exclusively about concepts and hardly at all about tools. His idea of a scientific revolution is based on a single example, the revolution in the theoretical physics that occurred in the 1920s with the advent of quantum mechanics.
- This was a prime example of a concept-driven revolution. Kuhn's book was so brilliantly written that it became an instant classic. It misled a whole generation of students and historians of science into believing that all scientific revolutions are concept-driven."



"George Green and physics" 🗹 Freeman Dyson, Physics World, 6, 33, 1993.^[10]

- The concept-driven revolutions are the ones that attract the most attention and have the greatest impact on the public awareness of science, but in fact they are comparatively rare.
- in the last five hundred years we have had six major concept-driven revolutions, associated with the names of Copernicus, Newton, Darwin, Maxwell, Einstein and Freud, besides the guantum-mechanical revolution that Kuhn took as his model.
- During the same period there have been about 20 tool-driven revolutions, not so impressive to the general public but of equal importance to the progress of science."



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"George Green and physics" 🗹 Freeman Dyson, Physics World, 6, 33, 1993. ^[10]

- 🚳 "I will not attempt to make a complete list of tool-driven revolutions. Two prime examples are the Galilean revolution resulting from the use of the telescope in astronomy, and the Crick-Watson revolution resulting from the use of X-ray diffraction to determine the structure of big molecules in biology.
- The effect of a concept-driven revolution is to explain old things in new ways.
- The effect of a tool-driven revolution is to discover new things that have to be explained."
- Observations/Claims/Questions: Primacy of storytelling and storybelieving in for individuals
- and populations.
- A Maybe: Stories are dynamical paths; plots are algorithms that give rise to stories.
- lnternet gives extraordinary power to propaganda, disinformation **Z**, conspiracy theories, ...
- 🗞 Global social media creates a global robust-yet-fragile social system.
 - Failure can be endogenous (infighting) and/or ignited/supported from the outside.

Observations/Claims/Questions:

- 🚳 Basic social fabric: What is the spectrum of stories in the media being told about classes of people, from within and without.
- Story decoherence: telephone game
- 🛞 What about stories about global problems like climate change? Government? Journalism?
- All separately powerful: Words, Music/Sound, Visual, ... interplay?
- Outcome: How to communicate scientific findings powerfully.

Understanding	g the	Sociotechnocene—Stories:
A WEIGHTED RANDOM NUMBER GENERATOR JUST PRODUCED A NEW BATCH OF NUMBERS.	&	Goal: a Science of Stories.
	&	Claim: Homo narrativus 🖉 — we run on stories.
ALL SPORTS COMMENTINEY	&	"What's the John Dory?"
xkcd.com/904/2ª	8	"They've lost the plot/thread"
Âø	&	Maybe: The narrative hierarchy and the Scalability of stories 🗗.
	8	Research: Extraction of metaphors, frames,
(III)		narratives, and stories from large-scale text/corpora.
	8	Storywrangler, POTUSometer,
	&	Research: What's the taxonomy of human
~ worker		stories?

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