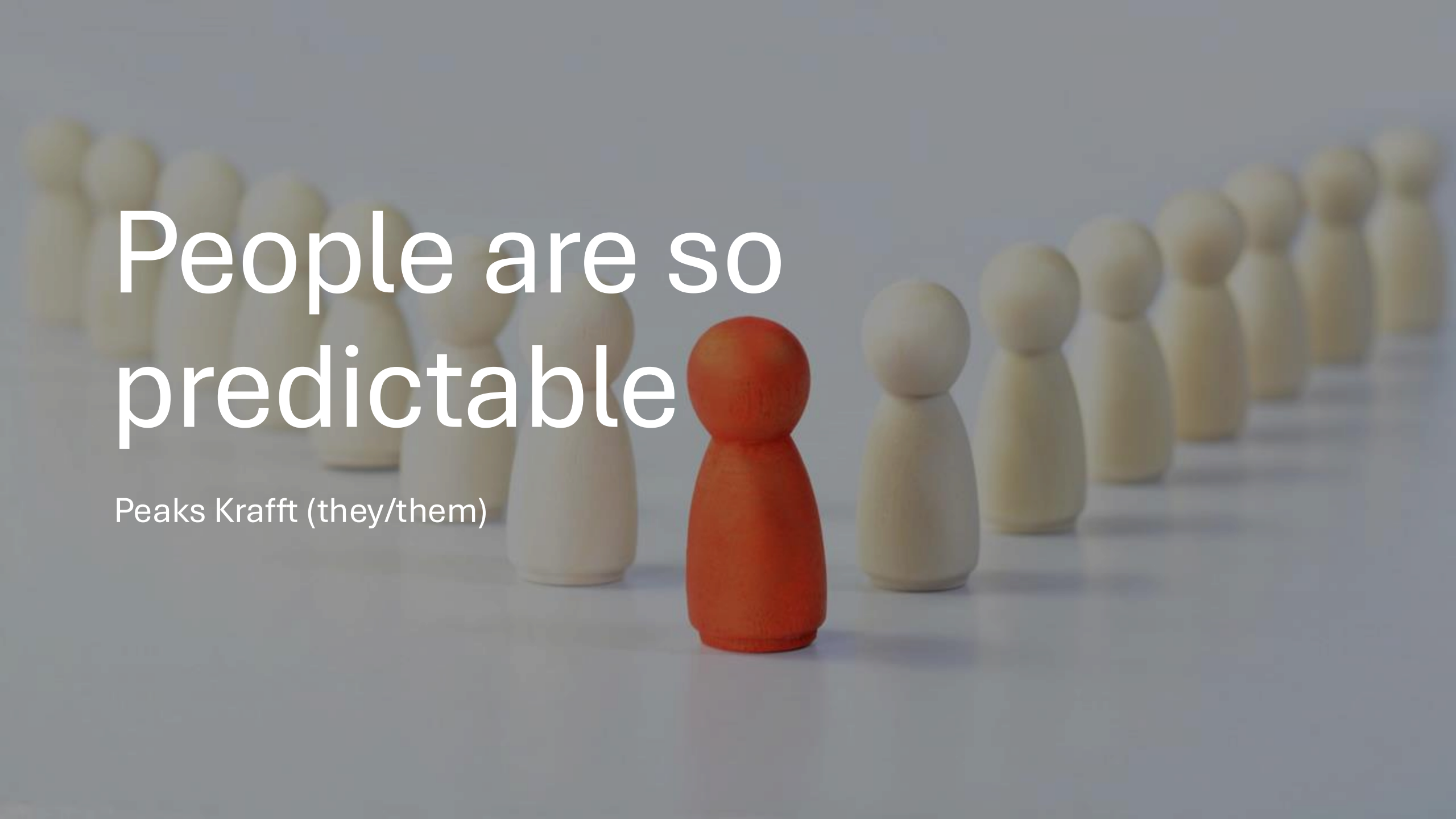


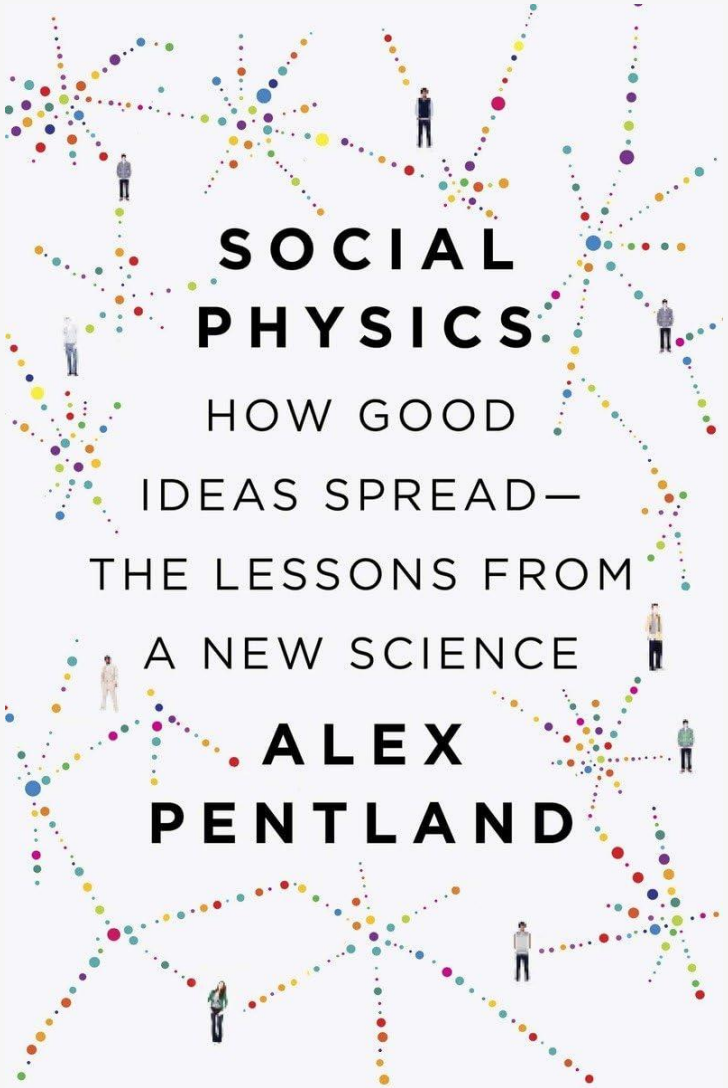
People are so predictable

Peaks Krafft (they/them)

Order

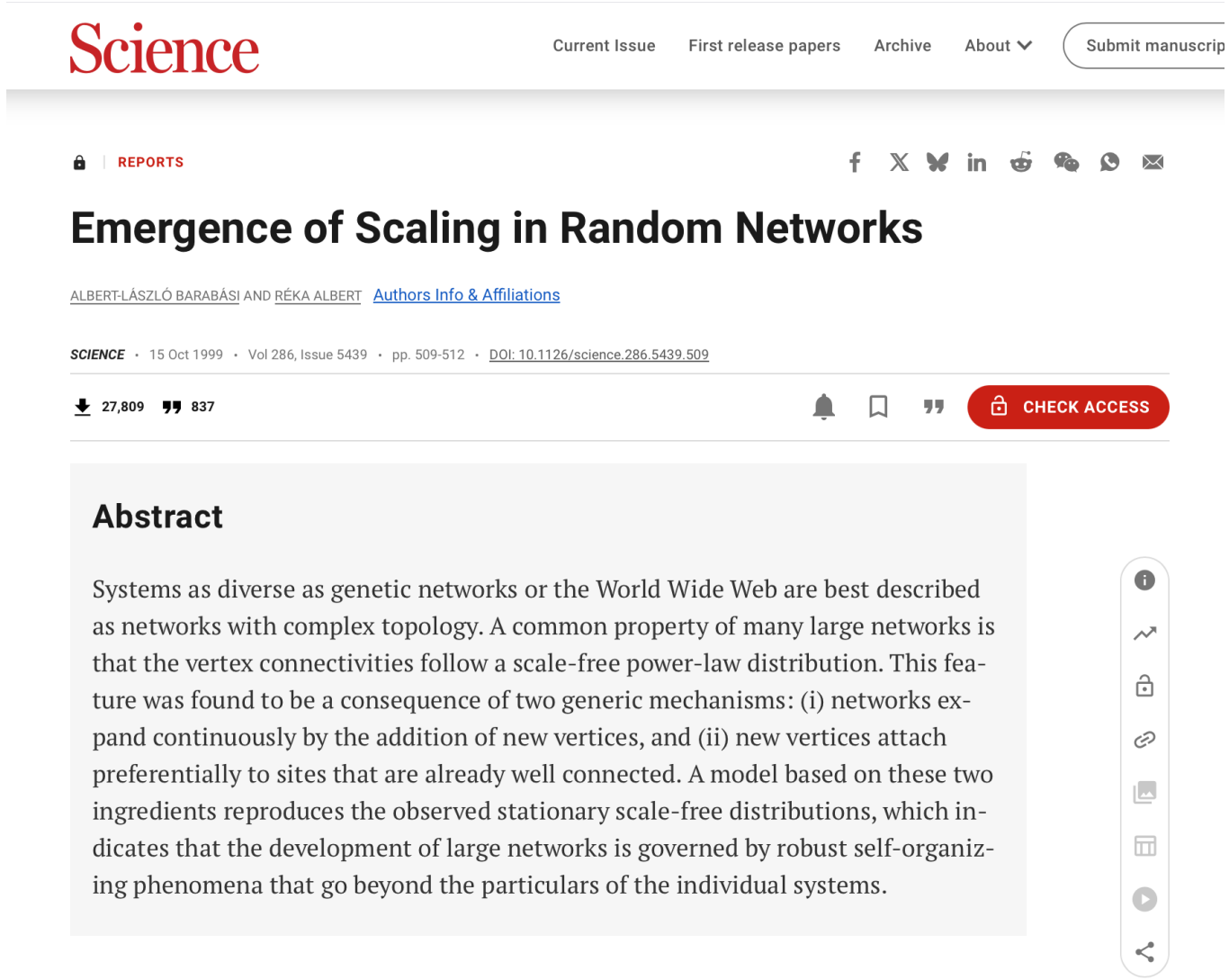
Order

“Social physics is a quantitative social science that describes reliable, mathematical connections between information and idea flow… and people’s behavior…”



Order

“Systems as diverse as genetic networks or the World Wide Web are best described as networks…”




Chaos
WORTH THE HYPE?!
THE VIRAL PISTACHIO
KNAFEH CHOCOLATE BAR

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REPORTS

Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market

MATTHEW J. SALGANIK, PETER SHERIDAN DODDS, AND DUNCAN J. WATTS Authors Info & Affiliations

SCIENCE • 10 Feb 2006 • Vol 311, Issue 5762 • pp. 854-856 • DOI: 10.1126/science.1121066

9,956 1,347 CHECK ACCESS

Abstract

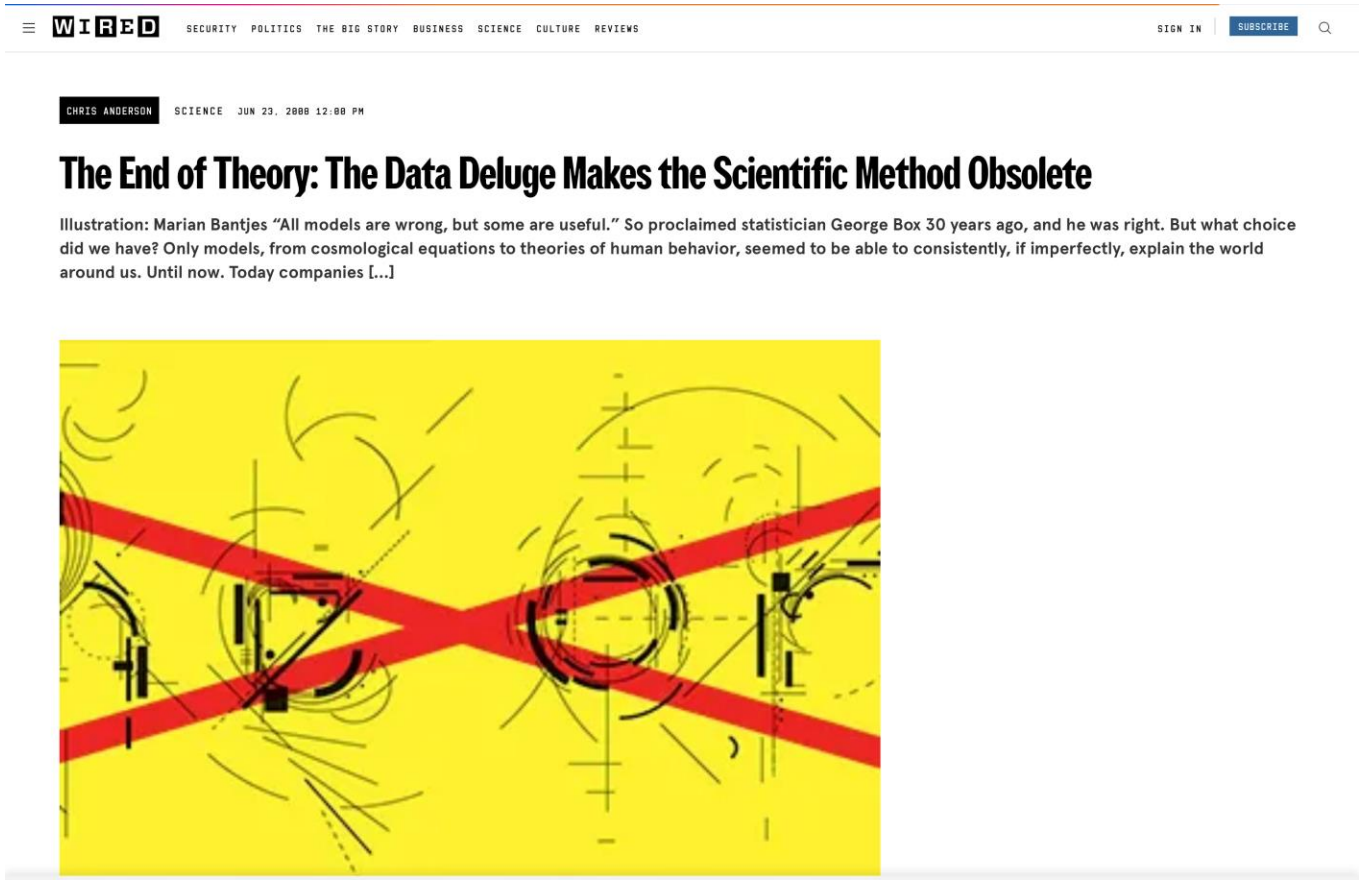
Hit songs, books, and movies are many times more successful than average, suggesting that "the best" alternatives are qualitatively different from "the rest"; yet experts routinely fail to predict which products will succeed. We investigated this paradox experimentally, by creating an artificial "music market" in which 14,341 participants downloaded previously unknown songs either with or without knowledge of previous participants' choices. Increasing the strength of social influence increased both inequality and unpredictability of success. Success was also only partly determined by quality: The best songs rarely did poorly, and the worst rarely did well, but any other result was possible.

Chaos

- "Hit songs, books, and movies are many times more successful than average… yet experts routinely fail to predict which products will succeed."

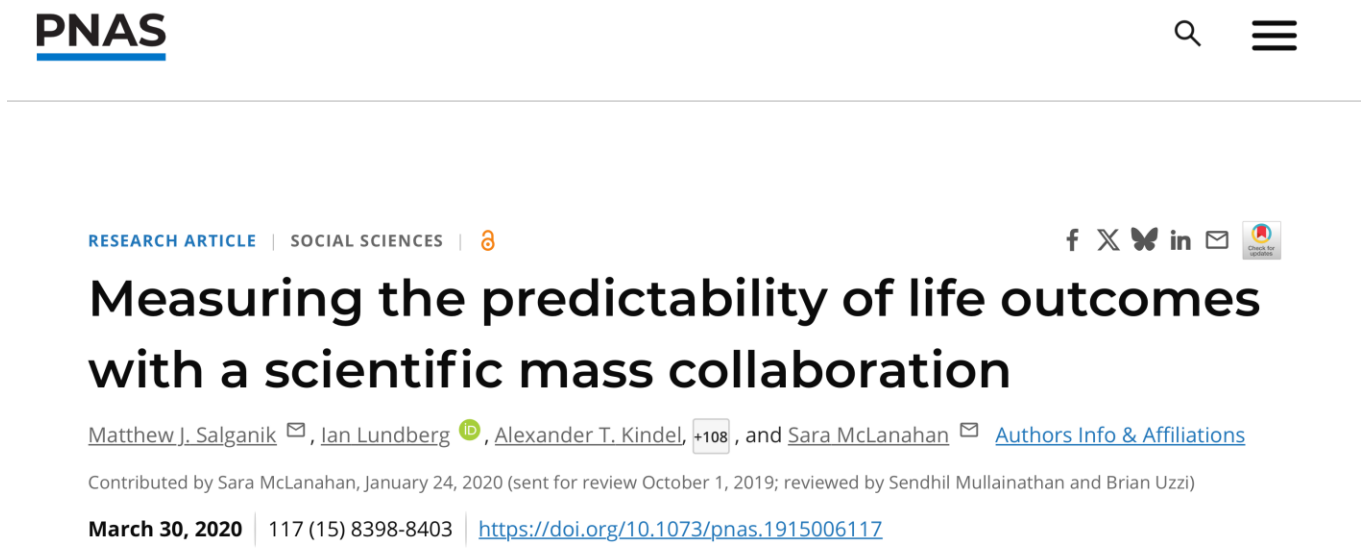
Maybe our models just aren’t good enough

“Out with every theory of human behavior, from linguistics to sociology… Who knows why people do what they do? The point is they do it, and we can track and measure it with unprecedented fidelity. With enough data, the numbers speak for themselves. Maybe we just need more data…”



Salganik 2.0, SICSS 1.0

"Despite using a rich dataset and applying machine-learning methods optimized for [predicting life outcomes], the best predictions were not very accurate and were only slightly better than those from a simple benchmark model"



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RESEARCH ARTICLE | SOCIAL SCIENCES |

Measuring the predictability of life outcomes with a scientific mass collaboration

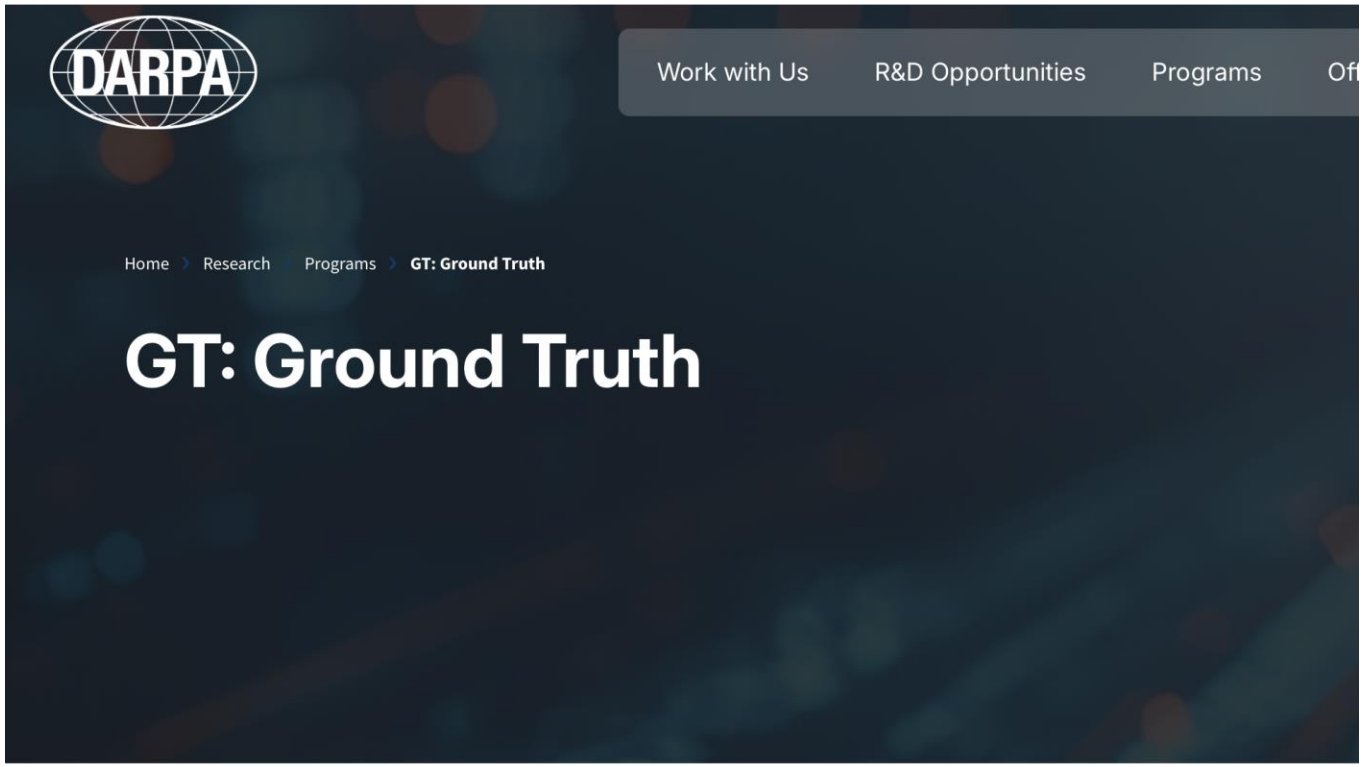
Matthew J. Salganik, Ian Lundberg, Alexander T. Kindel, +108, and Sara McLanahan Authors Info & Affiliations

Contributed by Sara McLanahan, January 24, 2020 (sent for review October 1, 2019; reviewed by Sendhil Mullainathan and Brian Uzzi)

March 30, 2020 | 117 (15) 8398-8403 | https://doi.org/10.1073/pnas.1915006117

Putting methods to the test

“The purpose of the program is to use artificial, yet plausible, computer-based social-system simulations with built-in “ground truth” causal rules as testbeds to validate the accuracy of various social science modeling methods”



Summary

The social sciences can play important roles in assisting military planners and decision-makers who are trying to understand complex human social behaviors and systems, potentially facilitating a wide range of missions including humanitarian, stability, and counter-insurgency operations.

“Ground Truth”

- A single underlying quantifiable, measurable reality
- The “true labels” and “true model” in reality
- Commonly assumed in statistics, AI, machine learning

The trouble with labels

- What is “success”?
- “Successful music” – Bourdieu says that for avant garde musicians, remaining in obscurity can be a mark of success.
- “Successful life” - ???

Gender Labels

“The protected characteristic of sex in the Equality Act refers to biological sex, not gender identity—even where a person has a Gender Recognition Certificate.”

Racial Categories

United Kingdom
White
Mixed
Asian
Black
Other

United States
White
Black
Native American
Asian
Pacific Islander
Other
Mixed

Are people predictable?

- People are only predictable if the future is like the past
- This is the assumption broadly made in AI, ML, computational social science

Are people predictable?

- If past = future, then social change is impossible!
- Radical politics does not assume but demands the possibility of change as a moral, ethical, and political matter.

Naturalist Social Science

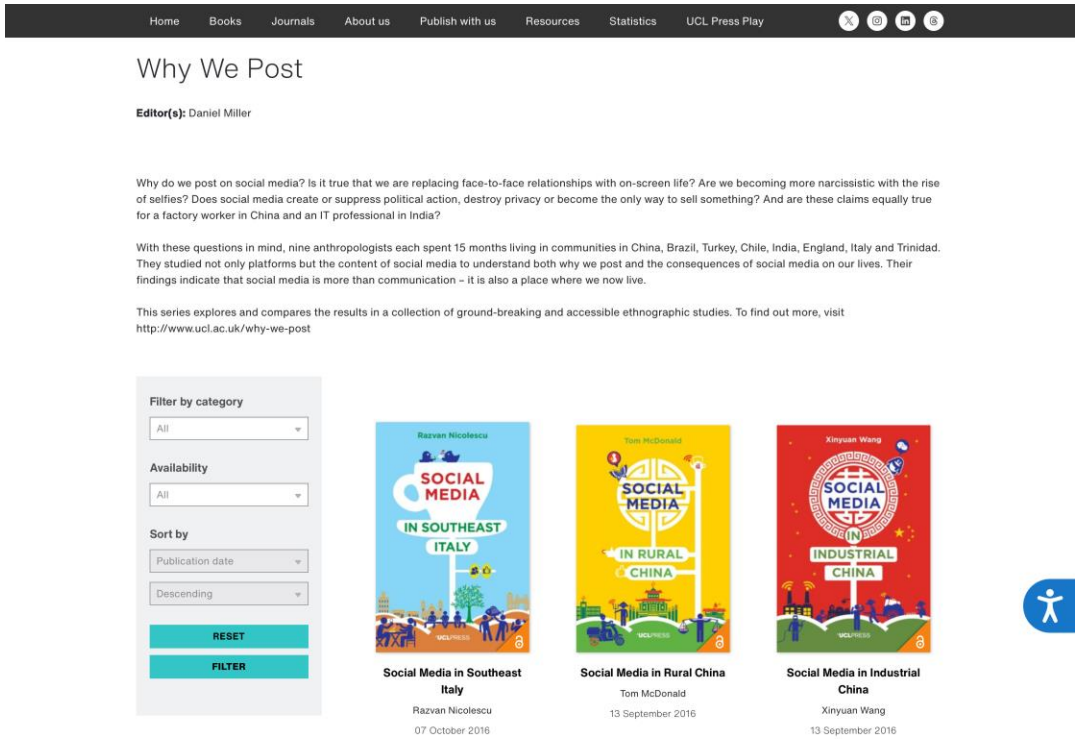
- Tools from the natural sciences work for the social sciences
- There is a stable ground truth (People and societies don’t change much)
- Social data tells us about the ground truth of society
- Models can approximate that reality
- The position of the researcher can be safely ignored as long as the researcher is objectively following the scientific method
- Computational Social Science offers a “social microscope”

Interpretive Social Science

- Social science requires unique methods
- There is no single stable ground truth of social phenomena
- Social realities must be understood from many perspectives
- Social methods should reveal interpretations, motivations, and meanings
- The position of the researcher must be understood as shaping the research and its own interpretations

Example


ONE DOES NOT SIMPLY
ASSUME SOCIAL MEDIA
IS THE SAME EVERYWHERE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Why We Post
Editor(s): Daniel Miller
Why do we post on social media? Is it true that we are replacing face-to-face relationships with on-screen life? Are we becoming more narcissistic with the rise of selfies? Does social media create or suppress political action, destroy privacy or become the only way to sell something? And are these claims equally true for a factory worker in China and an IT professional in India?
With these questions in mind, nine anthropologists each spent 15 months living in communities in China, Brazil, Turkey, Chile, India, England, Italy and Trinidad. They studied not only platforms but the content of social media to understand both why we post and the consequences of social media on our lives. Their findings indicate that social media is more than communication – it is also a place where we now live.
This series explores and compares the results in a collection of ground-breaking and accessible ethnographic studies. To find out more, visit http://www.ucl.ac.uk/why-we-post
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Interpretive Computational Social Science

- Question your categories
- Question your conclusions
- Ask: How might the results or study be interpreted differently by different people?
- Ask: Whose interests is my work serving?