Epsilon Theory

DOWN THE RABBIT HOLE | BY NEVILLE CRAWLEY

AI BS Detectors & the Origins of Life

Confidence levels for the Social and Behavioral Sciences

DARPA recently put out an **RFI** :

> *…requesting information on new ideas and approaches for creating (semi)automated capabilities to assign 'Confidence Levels' to specific studies, claims, hypotheses, conclusions, models, and/or theories found in social and behavioral science research (and) help experts and non-experts separate scientific wheat from wrongheaded chaff using machine reading, natural language processing, automated meta-analyses, statistics-checking algorithms, sentiment analytics, crowdsourcing tools, data sharing and archiving platforms, network analytics, etc.*

A visionary and high value RFI. Wired article on the same, enticingly titled, **DARPA Wants to Build a BS Detector for Science**.

Claude Berrou on turbo codes and informational neuroscience

Fascinating short **interview** with Claude Berrou, a French computer and electronics engineer who has done important work on turbo codes for telecom transmissions and is now working on informational neuroscience. Berrou describes his work through the lens of information and graph theory:

> *My starting point is still information, but this time in the brain. The human cerebral cortex can be compared to a graph, with billions of nodes and thousands of billions of edges. There are specific modules, and between the modules are lines of communication. I am convinced that the mental information, carried by the cortex, is binary. Conventional theories hypothesize that information is stored by the synaptic weights, the weights on the edges of the graph. I propose a different hypothesis. In my opinion, there is too much noise in the brain; it is too fragile, inconsistent, and unstable; pieces of information cannot be carried by weights, but rather by assemblies of nodes. These nodes form a*

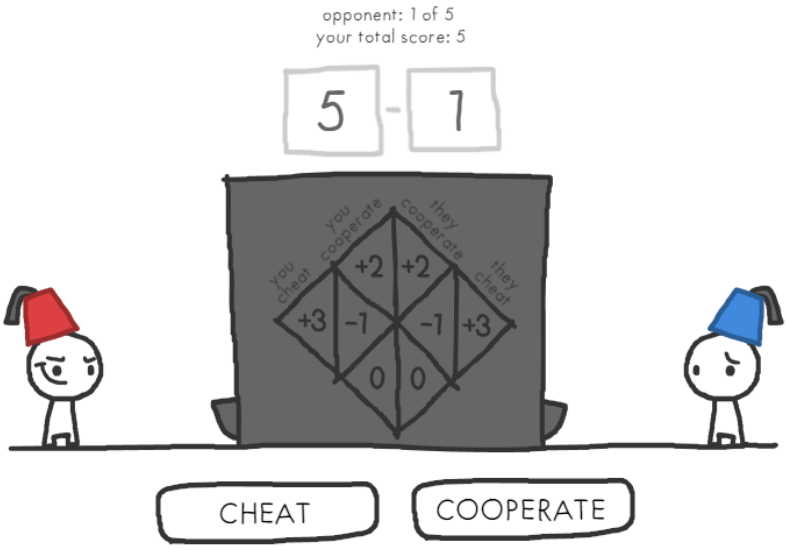
clique, in the geometric sense of the word, meaning they are all connected two by two. This becomes digital information...

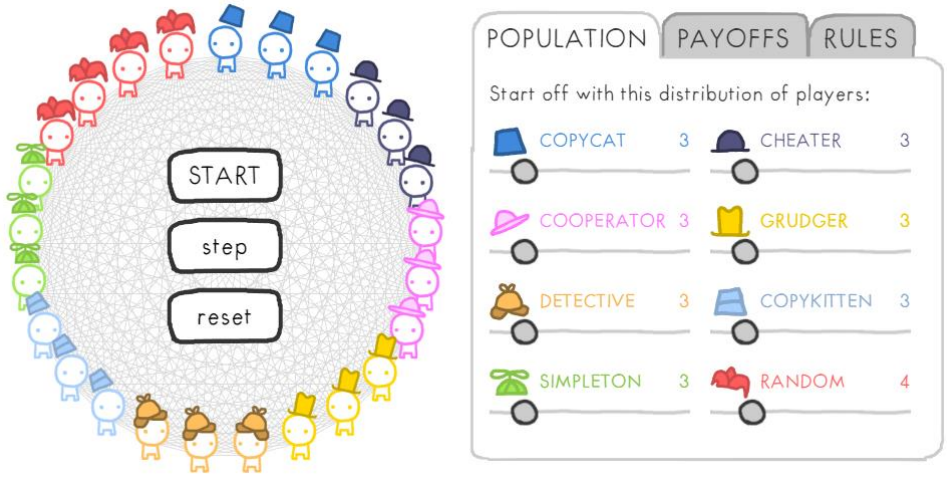
Thermodynamics in far-from-equilibrium systems

I'm a sucker for methods to try to understand and explain complex systems such as this **story** by **Quanta** (the publishing arm of the Simons Foundation — as in Jim Simons or Renaissance Technologies fame) of Jeremy England, a young MIT associate professor, using non-equilibrium statistical mechanics to poke at the origins of life.

Game theory

And finally, check out this neat little **game theory simulator** which explores how trust develops in society. It's a really sweet little application with fun interactive graphics framed around the historical 1914 No Man's Land Ceasefire. Check out more fascinating and deeply educational games from creator Nicky Case **here.**





Disclosures

This commentary is being provided to you by individual personnel of Salient Partners, L.P. ("Salient"), including third-party sources, and is provided as general information only and should not be taken as investment advice. The opinions expressed in these materials represent the personal views of the author(s) and do not necessarily represent the opinions of Salient. It is not investment research or a research recommendation, as it does not constitute substantive research or analysis. Any action that you take as a result of information contained in this document is ultimately your responsibility. Salient will not accept liability for any loss or damage, including without limitation to any loss of profit, which may arise directly or indirectly from use of or reliance on such information. Consult your investment advisor before making any investment decisions. It must be noted, that no one can accurately predict the future of the market with certainty or guarantee future investment performance. Past performance is not a guarantee of future results.

Information contained herein may be sourced from third parties not affiliated with Salient or its affiliates. Salient is not responsible for the content of any information contained herein from such third party. Third-party views and opinions expressed within this document may differ materially from those of Salient.

Salient is not responsible for any third-party content that may be accessed through this web site. The distribution or photocopying of Salient information contained on or downloaded from this site is strictly prohibited without the express written consent of Salient.

Statements in this communication are forward-looking statements.

The forward-looking statements and other views expressed herein are as of the date of this publication. Actual future results or occurrences may differ significantly from those anticipated in any forward-looking statements, and there is no guarantee that any predictions will come to pass. The views expressed herein are subject to change at any time, due to numerous market and other factors. Salient disclaims any obligation to update publicly or revise any forward-looking statements or views expressed herein.

This information is neither an offer to sell nor a solicitation of any offer to buy any securities. Any offering or solicitation will be made only to eligible investors and pursuant to any applicable Private Placement Memorandum and other governing documents, all of which must be read in their entirety.

Salient commentary has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. Salient recommends that investors independently evaluate particular investments and strategies, and encourage investors to seek the advice of a financial advisor. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives.