Brian Castellaniâ??s Map of the Complexity Sciences

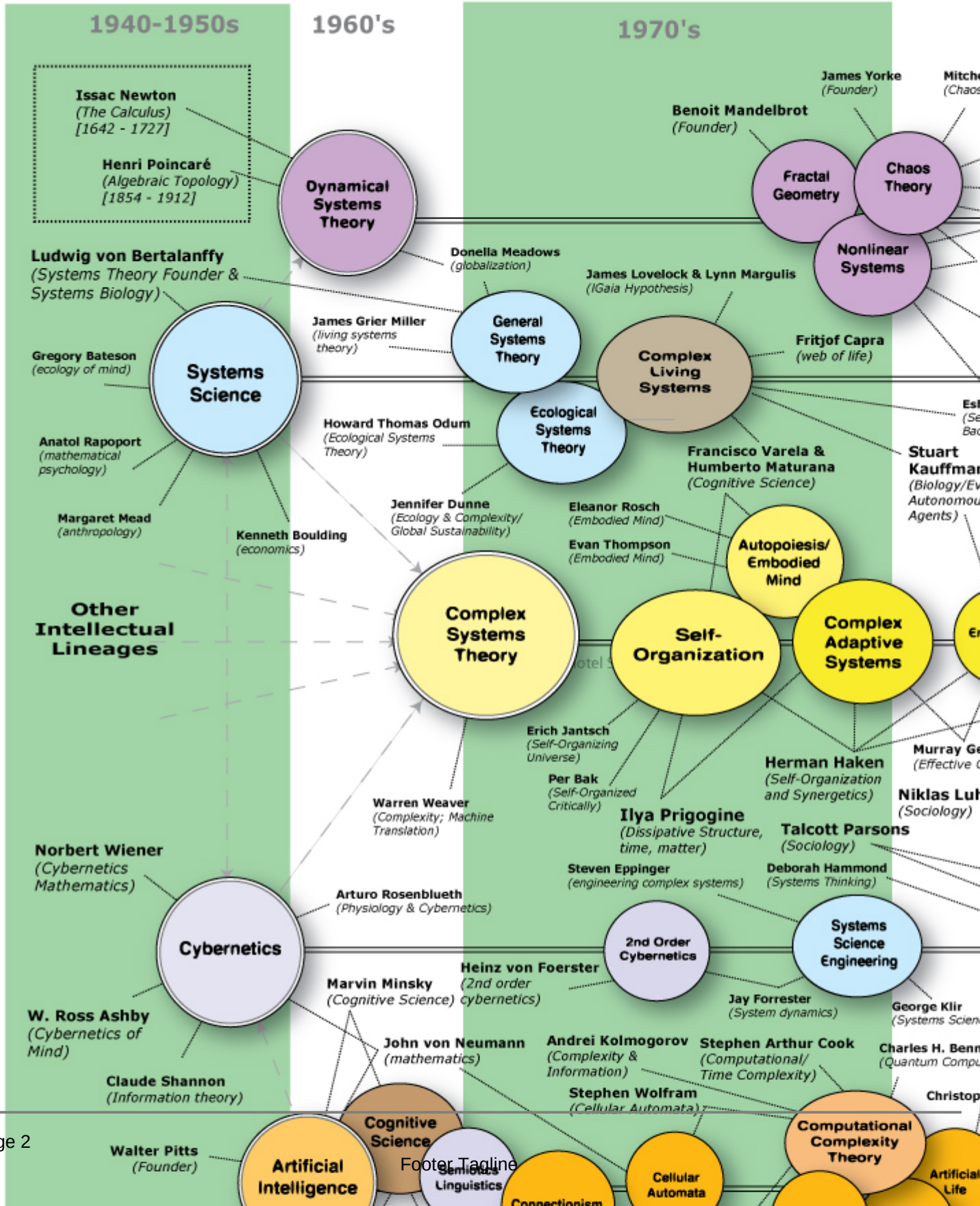
Description

Tweet

I have limited tolerance for â??complexity babbleâ?• That is, people talking about complexity in abstract and ungrounded, and in effect, practically inconsequential terms. Also in ways that give no acknowledgement to the surrounding history of ideas.

So, I really appreciate the work Brian has put into his â??Map of the Complexity Sciencesâ?• produced in 2018. And thought it deserves wider circulation. Note that this is one of a number of iterations and more iterations are likely in the future. Click on the image to go to a bigger copy.

And please note: when you get taken to the bigger copy and when you click on any node a hypertext link there, this will take you to another web page providing detailed information about that concept or person. A lot of work has gone into the construction of this map, which deserves recognition.


1940-1950s
1960's
1970's
Issac Newton
(The Calculus)
[1642 - 1727]
Henri Poincaré
(Algebraic Topology)
[1854 - 1912]
Dynamical Systems Theory
James Yorke
(Founder)
Benoit Mandelbrot
(Founder)
Fractal Geometry
Chaos Theory
Nonlinear Systems
Ludwig von Bertalanffy
(Systems Theory Founder & Systems Biology)
Donella Meadows
(globalization)
James Lovelock & Lynn Margulis
(IGaia Hypothesis)
James Grier Miller
(living systems theory)
General Systems Theory
Complex Living Systems
Fritjof Capra
(web of life)
Gregory Bateson
(ecology of mind)
Systems Science
Howard Thomas Odum
(Ecological Systems Theory)
Ecological Systems Theory
Francisco Varela & Humberto Maturana
(Cognitive Science)
Anatol Rapoport
(mathematical psychology)
Margaret Mead
(anthropology)
Kenneth Boulding
(economics)
Jennifer Dunne
(Ecology & Complexity/ Global Sustainability)
Eleanor Rosch
(Embodied Mind)
Evan Thompson
(Embodied Mind)
Autopoiesis/ Embodied Mind
Other Intellectual Lineages
Complex Systems Theory
Self-Organization
Complex Adaptive Systems
Erich Jantsch
(Self-Organizing Universe)
Per Bak
(Self-Organized Critically)
Herman Haken
(Self-Organization and Synergetics)
Warren Weaver
(Complexity; Machine Translation)
Ilya Prigogine
(Dissipative Structure, time, matter)
Talcott Parsons
(Sociology)
Norbert Wiener
(Cybernetics Mathematics)
Steven Eppinger
(engineering complex systems)
Deborah Hammond
(Systems Thinking)
Arturo Rosenblueth
(Physiology & Cybernetics)
Cybernetics
2nd Order Cybernetics
Systems Science Engineering
Heinz von Foerster
(2nd order cybernetics)
Marvin Minsky
(Cognitive Science)
Jay Forrester
(System dynamics)
W. Ross Ashby
(Cybernetics of Mind)
John von Neumann
(mathematics)
Andrei Kolmogorov
(Complexity & Information)
Stephen Arthur Cook
(Computational/ Time Complexity)
Stephen Wolfram
(Cellular Automata)
Claude Shannon
(Information theory)
Cognitive Science
Computational Complexity Theory
Walter Pitts
(Founder)
Artificial Intelligence
Semiotics
Linguistics
Cellular Automata
Connectionism

Here is a discussion of an earlier iteration: https://www.theoryculturesociety.org/brian-castellani-on-the-complexity-sciences/

Category

1. Uncategorized

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