Editorial

COLLECTIVE INTELLIGENCE

New books on collective intelligence: Growing the field: Interesting new books on collective intelligence

Geoff Mulgan

Collective Intelligence will periodically provide a summary of recent books that are contributing to growing the field, as well as occasional longer reviews. Please let us know about books you think are important and if you are interested in providing reviews.

Two important books are published in 2022 which are signs of the field of collective intelligence advancing fast in terms of intellectual breadth and clarity. *Strategies for Distributed & Collective Action: connecting the dots* (Oxford University Press, 2022, ISBN 9780198864301) by Martin Kornberger, Professor of Strategy at the University of Edinburgh, is an excellent primer on the different ways in which collectives can think and act. It covers examples ranging from responses to COVID-19 to the refugee crisis and provides a sophisticated theoretical overview of the roles of markets and crowds, movements and teams, fusing philosophy and social science. At its core are examples that show how traditional models of collective organization (markets, hierarchies, organisations) are now being complemented by new methods enabled by digital networks.

Cultural-Historical Perspectives on Collective Intelligence: Patterns in Problem Solving and Innovation (Cambridge University Press, 2022, ISBN 9781108981361) by Rolf Baltzersen of Ostfold University, is an unusually wide-ranging book that puts collective intelligence in a historical perspective, detailing many past examples of conscious organization of intelligence at scale. It includes some familiar recent examples, like Zooniverse and Foldit, Citizens Assemblies and vTaiwan, as well as surprising ones from Athens to medieval Europe. The core of the book provides a theoretical perspective that distinguishes what the author calls 'human swarm', 'stigmergic' and 'collaborative' problem solving, in each case linking contemporary examples to historical ones.

The editors were also interested by a couple of books that are tangential to collective intelligence research but are likely to be of interest. Jeff Hawkins' *A Thousand Brains: A New Theory of Intelligence* (Basic Books, 2021 ISBN 978-1541675810) sets out his suggestion that the brain is made up of multiple modules that create representation maps in cortical columns. His approach is part of a broader shift to seeing the individual brain as in many ways more like a collective intelligence, made up of both competing and cooperating modules, which 'vote' on decisions. The book also proposes how AI could move beyond deep learning to use the insights of this recent neuroscience. The theory hasn't yet been confirmed experimentally or corroborated in serious peer-reviewed journals. It remains promising rather than proven but is certainly stimulating. Another book with relevance to collective intelligence is Annie Murphy Paul's *The Extended Mind: the power of thinking outside the brain* (Houghton Mifflin Harcourt, 2021, ISBN 9780544947665). Many have written in the past about how the intelligence of the individual mind is augmented externally, using objects, spaces or the body, including theorists such as Andy Clark and Bruno Latour with his Actor Network Theory. But this book is the best gathering of both examples and theories that show how thought is supported by external tools and capabilities. It's a good counterweight to the misleading assumption of so much psychology and neuroscience that intelligence primarily happens within the human skull.

To help us provide an overview in the journal of new books, the editors are looking for a pool of reviewers. If you are interested in contributing please email with some examples of reviews you have written to bookseditor-ci@acm.org.

Corresponding author:
Geoff Mulgan.
Email: bookseditor-ci@acm.org