Locally noisy autonomous agents improve global huma experiments

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Citation Report

#	Article	IF	Citations
1	Occasional errors can benefit coordination. Nature, 2017, 545, 297-298.	13.7	1
2	Disinformation and Social Bot Operations in the Run Up to the 2017 French Presidential Election. SSRN Electronic Journal, 0, , .	0.4	42
3	Artificial intelligence and the future of work: Human-Al symbiosis in organizational decision making. Business Horizons, 2018, 61, 577-586.	3.4	765
4	Differential Learning as a Key Training Approach to Improve Creative and Tactical Behavior in Soccer. Research Quarterly for Exercise and Sport, 2018, 89, 11-24.	0.8	70
5	On common noise-induced synchronization in complex networks with state-dependent noise diffusion processes. Physica D: Nonlinear Phenomena, 2018, 369, 47-54.	1.3	29
6	Evolution of Cooperation with Heterogeneous Conditional Cooperators. Scientific Reports, 2018, 8, 4524.	1.6	10
7	Energy and Time-Optimal Connected Autonomous Vehicle Interaction: Cruising and Overtaking. , 2018, , .		0
8	Citizen Social Lab: A digital platform for human behavior experimentation within a citizen science framework. PLoS ONE, 2018, 13, e0207219.	1.1	11
9	Dynamics of Cooperation in Minority Games in Alliance Networks. Sustainability, 2018, 10, 4746.	1.6	5
10	The balance of autonomous and centralized control in scheduling problems. Applied Network Science, 2018, 3, .	0.8	15
11	Bots increase exposure to negative and inflammatory content in online social systems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12435-12440.	3.3	283
12	The strength of dynamic ties: The ability to alter some ties promotes cooperation in those that cannot be altered. Science Advances, 2018, 4, eaau9109.	4.7	10
13	Social media interventions for precision public health: promises and risks. Npj Digital Medicine, 2018, 1,	5.7	48
14	Spillover modes in multiplex games: double-edged effects on cooperation and their coevolution. Scientific Reports, 2018, 8, 6922.	1.6	5
15	How AI can be a force for good. Science, 2018, 361, 751-752.	6.0	297
16	Does risk communication really decrease cooperation in climate change mitigation?. Climatic Change, 2018, 149, 147-158.	1.7	15
17	Group formation on a small-world: experiment and modelling. Journal of the Royal Society Interface, 2019, 16, 20180814.	1.5	4
18	The Good, the Bad, and the Unflinchingly Selfish. ACM Transactions on Economics and Computation, 2019, 7, 1-14.	0.7	O

#	Article	IF	CITATIONS
19	Machine Learning-Based Spectral Library for Crop Classification and Status Monitoring. Agronomy, 2019, 9, 496.	1.3	24
20	Learning Existing Social Conventions via Observationally Augmented Self-Play. , 2019, , .		8
21	Online Interactive Experiments on Networks. , 2019, , .		0
22	Information gerrymandering and undemocratic decisions. Nature, 2019, 573, 117-121.	13.7	101
23	Directionality of information flow and echoes without chambers. PLoS ONE, 2019, 14, e0215949.	1.1	1
24	Machine behaviour. Nature, 2019, 568, 477-486.	13.7	536
25	Side-by-Side Human–Computer Design Using a Tangible User Interface. , 2019, , 155-173.		3
26	Dynamic matching pennies on networks. International Journal of Game Theory, 2019, 48, 887-920.	0.5	6
27	Resource sharing in technologically defined social networks. Nature Communications, 2019, 10, 1079.	5.8	28
28	The long-term impact of ranking algorithms in growing networks. Information Sciences, 2019, 488, 257-271.	4.0	12
29	Creating  automatic subjects': Corporate wellness and self-tracking. Health (United Kingdom), 2019, 23, 418-435.	0.9	26
31	Evolution of Collective Fairness in Hybrid Populations of Humans and Agents. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 6146-6153.	3.6	23
32	Effects of Network Structure on Subjective Preference Diversity. , 2019, , .		0
33	Social Network-Oriented Learning Agent for Improving Group Intelligence Coordination. IEEE Access, 2019, 7, 156526-156535.	2.6	4
34	Reward and punishment in climate change dilemmas. Scientific Reports, 2019, 9, 16193.	1.6	44
35	Computation and the Sociological Imagination. Contexts, 2019, 18, 10-15.	0.2	11
36	Pinning Controllability of Complex Network Systems With Noise. IEEE Transactions on Control of Network Systems, 2019, 6, 874-883.	2.4	25
37	Social physics: uncovering human behaviour from communication. Advances in Physics: X, 2019, 4, 1527723.	1.5	16

#	Article	IF	Citations
38	Noise-Induced Synchronization of Hegselmann–Krause Dynamics in Full Space. IEEE Transactions on Automatic Control, 2019, 64, 3804-3808.	3.6	12
39	Ranking game on networks: The evolution of hierarchical society. Physica A: Statistical Mechanics and Its Applications, 2020, 540, 123140.	1.2	3
40	Network Engineering Using Autonomous Agents Increases Cooperation in Human Groups. IScience, 2020, 23, 101438.	1.9	20
41	Rising with the machines: A sociotechnical framework for bringing artificial intelligence into the organization. Journal of Business Research, 2020, 120, 262-273.	5.8	183
42	Noise induced unanimity and disorder in opinion formation. PLoS ONE, 2020, 15, e0235313.	1.1	16
43	Kýnstliche Intelligenz und menschliche Kompetenz zur Automatisierung und Personalisierung von Dienstleistungen am Beispiel des Support. Forum Dienstleistungsmanagement, 2020, , 235-251.	1.0	4
44	Collective communication and behaviour in response to uncertain †Danger†in network experiments. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190685.	1.0	6
46	Vulnerable robots positively shape human conversational dynamics in a human–robot team. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6370-6375.	3.3	65
47	A Unifying Framework for Human–Agent Collaborative Systems—Part I: Element and Relation Analysis. IEEE Transactions on Cybernetics, 2022, 52, 138-151.	6.2	3
48	Picky losers and carefree winners prevail in collective risk dilemmas with partner selection. Autonomous Agents and Multi-Agent Systems, 2020, 34, 1.	1.3	9
49	Computational Social Science and Sociology. Annual Review of Sociology, 2020, 46, 61-81.	3.1	102
50	Order Through Disorder: The Characteristic Variability of Systems. Frontiers in Cell and Developmental Biology, 2020, 8, 186.	1.8	37
51	Towards prosocial design: A scoping review of the use of robots and virtual agents to trigger prosocial behaviour. Computers in Human Behavior, 2021, 114, 106547.	5.1	39
52	Designing Virtuous Sex Robots. International Journal of Social Robotics, 2021, 13, 55-66.	3.1	18
53	Knowledge Representation and Reasoning in Al-Based Solutions and IoT Applications. , 2021, , 13-49.		1
54	Connecting complex networks to nonadditive entropies. Scientific Reports, 2021, 11, 1130.	1.6	12
55	Networks, Creativity, and Time: Staying Creative through Brokerage and Network Rejuvenation. SSRN Electronic Journal, 0, , .	0.4	0
56	Influence Structures and Information Aggregation in Groups. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	CITATIONS
57	Noise-Based Control of Opinion Dynamics. IEEE Transactions on Automatic Control, 2022, 67, 3134-3140.	3.6	5
58	Stable leaders pave the way for cooperation under time-dependent exploration rates. Royal Society Open Science, 2021, 8, 200910.	1.1	4
59	A novel bilateral protocol in the bipartite network based on the public goods game. Knowledge-Based Systems, 2021, 214, 106721.	4.0	2
60	Novel probabilistic rolling regular tetrahedron mechanism. Frontiers of Mechanical Engineering, 2021, 16, 363-378.	2.5	0
61	Empirica: a virtual lab for high-throughput macro-level experiments. Behavior Research Methods, 2021, 53, 2158-2171.	2.3	17
62	The intermediary players affect the altruism behavior on the bipartite network. Europhysics Letters, 2021, 134, 18004.	0.7	0
63	Heider balance of a chain of actors as dependent on the interaction range and a thermal noise. Physica A: Statistical Mechanics and Its Applications, 2021, 567, 125640.	1.2	7
64	Free neighborhood choice boosts socially optimal outcomes in stag-hunt coordination problem. Scientific Reports, 2021, 11, 7745.	1.6	2
65	Random choices facilitate solutions to collective network coloring problems by artificial agents. IScience, 2021, 24, 102340.	1.9	2
66	Robust coordination in adversarial social networks: From human behavior to agent-based modeling. Network Science, 0, , 1-36.	0.8	1
67	Human-agent coordination in a group formation game. Scientific Reports, 2021, 11, 10744.	1.6	4
68	Algorithm exploitation: Humans are keen to exploit benevolent Al. IScience, 2021, 24, 102679.	1.9	15
69	From Symbols to Embeddings: A Tale of Two Representations in Computational Social Science. Journal of Social Computing, 2021, 2, 103-156.	1.5	8
70	Stewardship of global collective behavior. Proceedings of the National Academy of Sciences of the United States of America, $2021,118,$	3.3	129
71	Risk sensitivity and theory of mind in human coordination. PLoS Computational Biology, 2021, 17, e1009167.	1.5	1
72	Networks, Property, and the Division of Labor. American Sociological Review, 2021, 86, 759-786.	2.8	2
73	Inferring Trust From Users' Behaviours; Agents' Predictability Positively Affects Trust, Task Performance and Cognitive Load in Human-Agent Real-Time Collaboration. Frontiers in Robotics and Al, 2021, 8, 642201.	2.0	10
74	Networks, Creativity, and Time: Staying Creative through Brokerage and Network Rejuvenation. Academy of Management Journal, 2021, 64, 1164-1190.	4.3	44

#	Article	IF	Citations
75	HuGoS: a virtual environment for studying collective human behavior from a swarm intelligence perspective. Swarm Intelligence, 0 , 1 .	1.3	5
76	From H. Russell Bernard, Peter Killworth, David Kronenfeld, and Lee Sailer, "The Problem of Informant Accuracy― , 2021, , 163-173.		0
77	Reflections on "The Focused Organization of Social Ties―and its Implications for Bonding and Bridging. , 2021, , 360-370.		2
78	Three Decades of Research into Social Capital: Achievements, Blind Spots, and Future Directions., 2021,, 308-322.		0
79	From Robert Huckfeldt and John Sprague, "Networks in Context― , 2021, , 471-476.		0
80	From Harrison C. White, Identity and Control. , 2021, , 185-198.		0
81	On Social Media. , 2021, , 718-733.		3
83	On Movements. , 2021, , 696-717.		3
84	Influencers, Backfire Effects, and the Power of the Periphery. , 2021, , 73-86.		6
85	On Culture. , 2021, , 651-674.		0
86	Individuals, Groups, and Networks: Implications for the Study and Practice of Democratic Politics., 2021,, 477-488.		1
87	Commentary on Bott's "Family and Social Network―, 2021, , 118-134.		0
88	From Mark S. Granovetter, "The Strength of Weak Ties― , 2021, , 240-250.		0
89	From Elihu Katz and Paul F. Lazarsfeld, Personal Influence. , 2021, , 60-72.		0
90	Implications of Informant Accuracy Research for Ego Networks. , 2021, , 174-184.		0
91	From Edward O. Laumann, Peter V. Marsden, and David Prensky, "The Boundary Specification Problem in Network Analysis― , 2021, , 417-430.		0
92	On Cognition. , 2021, , 555-572.		0
93	On Inequality. , 2021, , 630-650.		0

#	Article	IF	CITATIONS
94	From Claude S. Fischer, <i>To Dwell among Friends </i> ., 2021, , 213-226.		2
95	On Dynamics. , 2021, , 612-629.		3
96	Social Capital: An Update. , 2021, , 504-518.		1
98	On the Boundary Specification Problem in Network Analysis: An Update and Extension to Personal Social Networks., 2021,, 431-443.		4
100	From the Northern California Community Study, 1977–1978, to the University of California, Berkeley, Social Networks Project, 2015–2020. , 2021, , 227-239.		0
101	From James S. Coleman, "Social Capital in the Creation of Human Capital― , 2021, , 296-307.		O
102	Festinger, Schachter, and Back's Social Pressures in Informal Groups. , 2021, , 151-162.		0
103	On Trust. , 2021, , 596-611.		0
104	From Bernice A. Pescosolido, "Beyond Rational Choice― , 2021, , 323-335.		0
105	The Enormous Flock of Homophily Researchers: Assessing and Promoting a Research Agenda. , 2021, , 459-470.		3
106	On J. Clyde Mitchell's "The Concept and Use of Social Networks― , 2021, , 98-111.		0
108	On the General Social Survey. , 2021, , 519-552.		1
109	A Brief Taxonomy of Hybrid Intelligence. Forecasting, 2021, 3, 633-643.	1.6	3
110	Eliciting Fairness in N-Player Network Games through Degree-Based Role Assignment. Complexity, 2021, 2021, 1-11.	0.9	5
111	On Parachutes and Lion-Taming. , 2021, , 199-210.		0
112	From Elizabeth Bott, "Urban Families: Conjugal Roles and Social Networks― , 2021, , 112-117.		0
113	<i>Structural Holes</i> Capstone, Cautions, and Enthusiasms., 2021,, 384-416.		12
114	From Nan Lin, "Building a Network Theory of Social Capital― , 2021, , 489-503.		0

#	Article	IF	Citations
115	Georg Simmel's Contribution to Social Network Research. , 2021, , 44-59.		3
116	From Scott L. Feld, "The Focused Organization of Social Ties― , 2021, , 350-359.		0
117	Strength of Weak Ties in the Labor Market: An Assessment of the State of Research. , 2021, , 251-264.		3
118	Task complexity moderates group synergy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	28
119	A Network Pilgrim's Progress: Twenty-Six Realizations in Fifty-Five Years. , 2021, , 282-295.		1
120	On Migration. , 2021, , 675-695.		1
121	From Georg Simmel, "On the Significance of Numbers for Social Life: Introduction,―"The Isolated Individual and the Dyad,―"The Triad,―and "The Web of Group Affiliations― , 2021, , 29-43.		0
122	From Miller McPherson, Lynn Smith-Lovin, and James M. Cook, "Birds of a Feather―, 2021, , 444-458.		1
123	From J. Clyde Mitchell, "The Concept and Use of Social Networks― , 2021, , 87-97.		0
124	From Leon Festinger, Stanley Schachter, and Kurt Back, Social Pressures in Informal Groups. , 2021, , 135-150.		1
125	From Ronald S. Burt, Structural Holes. , 2021, , 371-383.		0
126	Confronting How People Cope with Crisis: From the Social Organization Strategy Framework to the Network Episode Model to the Network Embedded Symbiome., 2021,, 336-349.		2
127	From Barry Wellman and Scot Wortley, "Different Strokes from Different Folks― , 2021, , 265-281.		0
128	On Mobilization. , 2021, , 573-595.		3
129	Metacode: One code to rule them all. BioSystems, 2021, 208, 104486.	0.9	9
130	Understanding Human-Al Cooperation Through Game-Theory and Reinforcement Learning Models. , 0, , .		4
131	Socially responsive technologies: toward a co-developmental path. Al and Society, 2020, 35, 885-893.	3.1	2
132	Artificial Intelligence and Community Well-being: A Proposal for an Emerging Area of Research. International Journal of Community Well-Being, 2020, 3, 39-55.	0.7	28

#	Article	IF	CITATIONS
133	Threshold Models of Collective Behavior II: The Predictability Paradox and Spontaneous Instigation. Sociological Science, 0, 7, 628-648.	2.0	7
134	Social Computing Unhinged. Journal of Social Computing, 2020, 1, 1-13.	1.5	22
135	Disinformation and social bot operations in the run up to the 2017 French presidential election. First Monday, 0 , , .	0.6	172
136	Empathy and Prosociality in Social Agents. , 2021, , 385-432.		11
137	The Diversity Gap: When Diversity Matters for Knowledge. Perspectives on Psychological Science, 2022, 17, 752-767.	5.2	23
138	The dual problems of coordination and anti-coordination on random bipartite graphs. New Journal of Physics, 2021, 23, 113018.	1.2	0
139	Crowd intelligence evolution based on complex network. International Journal of Crowd Science, 2021, ahead-of-print, .	1.1	1
140	How Has Technology Changed Group Communication? A Keyword Analysis of Research on Groups and Technology * ., 2021, , 373-390.		1
141	Affinity of Robotics and Insect Behavioral Sciences. Journal of the Robotics Society of Japan, 2017, 35, 459-462.	0.0	0
142	Dynamic Analysis of Hydro-Turbine Governing System with Multistochastic Factors. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	1
143	The design of emergence in organizations. Journal of Organization Design, 2020, 9, 1.	0.7	2
144	How Al Can Be a Force for Good – An Ethical Framework to Harness the Potential of Al While Keeping Humans in Control. Philosophical Studies Series, 2021, , 91-96.	1.3	5
145	Human-Centered Explainable Artificial Intelligence for Marine Autonomous Surface Vehicles. Journal of Marine Science and Engineering, 2021, 9, 1227.	1.2	9
146	What science can do for democracy: a complexity science approach. Humanities and Social Sciences Communications, 2020, 7, .	1.3	4
147	Service Ecosystem: A Lens of Smart Digital Society. , 2021, , .		1
148	Social physics. Physics Reports, 2022, 948, 1-148.	10.3	231
149	Network Theories. , 2020, , 24-42.		0
150	Time series classification based on complex network. Expert Systems With Applications, 2022, 194, 116502.	4.4	13

#	Article	IF	CITATIONS
151	Al-employee collaboration and business performance: Integrating knowledge-based view, socio-technical systems and organisational socialisation framework. Journal of Business Research, 2022, 144, 31-49.	5.8	64
152	Local Majority-with-inertia Rule Can Explain Global Consensus Dynamics in A Network Coordination Game. Social Networks, 2022, 70, 218-227.	1.3	4
153	Analytic Advances in Social Networks and Health in the Twenty-First Century. Journal of Health and Social Behavior, 2022, 63, 191-209.	2.7	5
154	How Al revolutionizes innovation management – Perceptions and implementation preferences of Al-based innovators. Technological Forecasting and Social Change, 2022, 178, 121598.	6.2	47
155	Modeling of human group coordination. Physical Review Research, 2022, 4, .	1.3	5
156	A Comparison of Dynamical Perceptual-Motor Primitives and Deep Reinforcement Learning for Human-Artificial Agent Training Systems. Journal of Cognitive Engineering and Decision Making, 0, , 155534342210929.	0.9	2
157	Information aggregation and collective intelligence beyond the wisdom of crowds., 2022, 1, 345-357.		20
158	Insights about the common generative rule underlying an information foraging task can be facilitated via collective search. Scientific Reports, 2022, 12, 8047.	1.6	4
159	Hybrid social learning in human-algorithm cultural transmission. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	1.6	8
160	A Change Management Approach with the Support of the Balanced Scorecard and the Utilization of Artificial Neural Networks. Administrative Sciences, 2022, 12, 63.	1.5	3
162	Opinion dynamics in social networks under competition: the role of influencing factors in consensus-reaching. Royal Society Open Science, 2022, 9, .	1.1	5
163	Effective human–Al work design for collaborative decision-making. Kybernetes, 2023, 52, 5017-5040.	1.2	3
164	Delay-induced directional switches and mean switching time in swarming systems. Physical Review Research, 2022, 4, .	1.3	3
165	Engineering Pro-Sociality With Autonomous Agents. Proceedings of the AAAI Conference on Artificial Intelligence, 2018, 32, .	3.6	30
166	A variational-autoencoder approach to solve the hidden profile task in hybrid human-machine teams. PLoS ONE, 2022, 17, e0272168.	1.1	0
167	Human preferences toward algorithmic advice in a word association task. Scientific Reports, 2022, 12, .	1.6	5
168	Collaborative Work with Highly Automated Marine Navigation Systems. Computer Supported Cooperative Work, 2024, 33, 7-38.	1.9	0
169	Structure in context: A morphological view of whole network performance. Social Networks, 2023, 72, 165-182.	1.3	1

#	Article	IF	CITATIONS
170	Mensch-Algorithmus-Hybride als (Quasi-)Organisationen? Zu Verantwortung und Verantwortlichkeit von digitalen Kollektivakteuren. Soziale Systeme: Zeitschrift FÜr Soziologische Theorie, 2022, 26, 95-126.	0.1	4
171	Mutual learning in networks: Building theory by piecing together puzzling facts. Research in Organizational Behavior, 2022, 42, 100175.	0.9	2
172	Research Roadmap of Service Ecosystems: A Crowd Intelligence Perspective. International Journal of Crowd Science, 2022, 6, 195-222.	1.1	28
173	The social consequences of Machine Allocation Behavior: Fairness, interpersonal perceptions and performance. Computers in Human Behavior, 2023, 146, 107628.	5.1	3
174	Vanishing Opinions in Latané Model of Opinion Formation. Entropy, 2023, 25, 58.	1.1	2
176	Agent-based null models for examining experimental social interaction networks. Scientific Reports, 2023, 13, .	1.6	0
177	Managing innovation in the era of Al. Technology in Society, 2023, 73, 102254.	4.8	10
180	Al and the transformation of social science research. Science, 2023, 380, 1108-1109.	6.0	27
184	From Human to Machine. , 2023, , 119-170.		0
194	Learning Adaptable Risk-Sensitive Policies toÂCoordinate inÂMulti-agent General-Sum Games. Lecture Notes in Computer Science, 2024, , 27-40.	1.0	O