Edward H Shortliffe

List of Publications by Year
in descending order

149 papers	8,917 citations	61857 43 h-index	43802 91 g-index
159 all docs	159 docs citations	159 times ranked	5725 citing authors

#	Article	IF	Citations
1	A model of inexact reasoning in medicine. Mathematical Biosciences, 1975, 23, 351-379.	0.9	1,135
2	Comparing Computer-interpretable Guideline Models: A Case-study Approach. Journal of the American Medical Informatics Association: JAMIA, 2003, 10, 52-68.	2.2	407
3	Clinical Decision Support in the Era of Artificial Intelligence. JAMA - Journal of the American Medical Association, 2018, 320, 2199.	3.8	407
4	The coming of age of artificial intelligence in medicine. Artificial Intelligence in Medicine, 2009, 46, 5-17.	3.8	403
5	An analysis of physician attitudes regarding computer-based clinical consultation systems. Journal of Biomedical Informatics, 1981, 14, 542-558.	0.7	359
6	Computer-based consultations in clinical therapeutics: Explanation and rule acquisition capabilities of the MYCIN system. Journal of Biomedical Informatics, 1975, 8, 303-320.	0.7	349
7	A method for managing evidential reasoning in a hierarchical hypothesis space. Artificial Intelligence, 1985, 26, 323-357.	3.9	336
8	Expert Systems Research. Science, 1983, 220, 261-268.	6.0	333
9	GLIF3: a representation format for sharable computer-interpretable clinical practice guidelines. Journal of Biomedical Informatics, 2004, 37, 147-161.	2.5	257
10	The GuideLine Interchange Format: A Model for Representing Guidelines. Journal of the American Medical Informatics Association: JAMIA, 1998, 5, 357-372.	2.2	248
11	Computer Programs to Support Clinical Decision Making. JAMA - Journal of the American Medical Association, 1987, 258, 61.	3.8	229
12	Watson for Oncology and breast cancer treatment recommendations: agreement with an expert multidisciplinary tumor board. Annals of Oncology, 2018, 29, 418-423.	0.6	225
13	PUFF: An expert system for interpretation of pulmonary function data. Journal of Biomedical Informatics, 1983, 16, 199-208.	0.7	214
14	AMIA Board white paper: definition of biomedical informatics and specification of core competencies for graduate education in the discipline. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 931-938.	2.2	193
15	An Artificial Intelligence program to advise physicians regarding antimicrobial therapy. Journal of Biomedical Informatics, 1973, 6, 544-560.	0.7	188
16	A cognitive taxonomy of medical errors. Journal of Biomedical Informatics, 2004, 37, 193-204.	2.5	184
17	Use of a domain model to drive an interactive knowledge-editing tool. International Journal of Man-Machine Studies, 1987, 26, 105-121.	0.7	148
18	Anticipating and addressing the unintended consequences of health IT and policy: a report from the AMIA 2009 Health Policy Meeting. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 82-90.	2.2	135

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19	Evaluating the performance of a computer-based consultant. Computer Programs in Biomedicine, 1979, 9, 95-102.	0.8	123
20	Representation primitives, process models and patient data in computer-interpretable clinical practice guidelines:. International Journal of Medical Informatics, 2002, 68, 59-70.	1.6	114
21	The adolescence of AI in Medicine: Will the field come of age in the '90s?. Artificial Intelligence in Medicine, 1993, 5, 93-106.	3.8	110
22	Strategic Action In Health Information Technology: Why The Obvious Has Taken So Long. Health Affairs, 2005, 24, 1222-1233.	2.5	110
23	Adapting a consultation system to critique user plans. International Journal of Man-Machine Studies, 1983, 19, 479-496.	0.7	101
24	Design and implementation of the GLIF3 guideline execution engine. Journal of Biomedical Informatics, 2004, 37, 305-318.	2.5	99
25	Representing Clinical Guidelines in GLIF: Individual and Collaborative Expertise. Journal of the American Medical Informatics Association: JAMIA, 1998, 5, 467-483.	2.2	94
26	Cognitive and learning sciences in biomedical and health instructional design: A review with lessons for biomedical informatics education. Journal of Biomedical Informatics, 2009, 42, 176-197.	2.5	86
27	The Collaborative Health Care Team: The Role of Individual and Group Expertise. Teaching and Learning in Medicine, 2000, 12, 117-132.	1.3	84
28	Biomedical Informatics: Changing What Physicians Need to Know and How They Learn. Academic Medicine, 2011, 86, 429-434.	0.8	81
29	A rule-based computer program for advising physicians regarding antimicrobial therapy selection. , 1974, , .		79
30	A cognitive blueprint of collaboration in context: Distributed cognition in the psychiatric emergency department. Artificial Intelligence in Medicine, 2006, 37, 73-83.	3.8	79
31	Methods of Cognitive Analysis to Support the Design and Evaluation of Biomedical Systems: The Case of Clinical Practice Guidelines. Journal of Biomedical Informatics, 2001, 34, 52-66.	2.5	71
32	The Unified Medical Language System: Toward a Collaborative Approach for Solving Terminologic Problems. Journal of the American Medical Informatics Association: JAMIA, 1998, 5, 12-16.	2.2	69
33	From certainty factors to belief networks. Artificial Intelligence in Medicine, 1992, 4, 35-52.	3.8	64
34	Representing Thoughts, Words, and Things in the UMLS. Journal of the American Medical Informatics Association: JAMIA, 1998, 5, 421-431.	2.2	63
35	The InterMed Approach to Sharable Computer-interpretable Guidelines: A Review. Journal of the American Medical Informatics Association: JAMIA, 2004, 11, 1-10.	2.2	57
36	Using the Internet to improve knowledge diffusion in medicine. Communications of the ACM, 1997, 40, 101-108.	3.3	54

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37	Representation of change in controlled medical terminologies. Artificial Intelligence in Medicine, 1999, 15, 53-76.	3.8	53
38	A study of collaboration among medical informatics research laboratories. Artificial Intelligence in Medicine, 1998, 12, 97-123.	3.8	52
39	Sharable Representation of Clinical Guidelines in GLIF: Relationship to the Arden Syntax. Journal of Biomedical Informatics, 2001, 34, 170-181.	2.5	52
40	Toward a Representation Format for Sharable Clinical Guidelines. Journal of Biomedical Informatics, 2001, 34, 157-169.	2.5	52
41	Training the Next Generation of Informaticians: The Impact of "BISTI" and Bioinformatics–A Report from the American College of Medical Informatics. Journal of the American Medical Informatics Association: JAMIA, 2004, 11, 167-172.	2.2	52
42	The PEN-Ivory Project: Exploring User-interface Design for the Selection of Items from Large Controlled Vocabularies of Medicine. Journal of the American Medical Informatics Association: JAMIA, 1996, 3, 168-183.	2.2	51
43	Clinical Informatics. JAMA - Journal of the American Medical Association, 2014, 311, 2067.	3.8	47
44	Role of cognition in generating and mitigating clinical errors. BMJ Quality and Safety, 2015, 24, 468-474.	1.8	47
45	Biomedical Informatics in the Education of Physicians. JAMA - Journal of the American Medical Association, 2010, 304, 1227.	3.8	44
46	Improving data and knowledge management to better integrate health care and research. Journal of Internal Medicine, 2013, 274, 321-328.	2.7	44
47	Testing Reality: The Introduction of Decision-Support Technologies for Physicians. Methods of Information in Medicine, 1989, 28, 1-5.	0.7	43
48	Improvements in data collection through physician use of a computer-based chemotherapy treatment consultant.. Journal of Clinical Oncology, 1985, 3, 1409-1417.	0.8	41
49	A therapy planning architecture that combines decision theory and artificial intelligence techniques. Journal of Biomedical Informatics, 1987, 20, 279-303.	0.7	40
50	Health Care and the Next Generation Internet. Annals of Internal Medicine, 1998, 129, 138.	2.0	38
51	Modeling information flows in clinical decision support: key insights for enhancing system effectiveness. Journal of the American Medical Informatics Association: JAMIA, 2016, 23, 1001-1006.	2.2	38
52	Advanced Computing for Medicine. Scientific American, 1987, 257, 154-161.	1.0	37
53	Putting Health IT on the Path to Success. JAMA - Journal of the American Medical Association, 2013, 309, 989.	3.8	36
54	Patient Records and Computers. Annals of Internal Medicine, 1991, 115, 979-981.	2.0	30

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55	Lessons Learned from a Health Record Bank Start-up. Methods of Information in Medicine, 2014, 53, 66-72.	0.7	29
56	Networking Health: Learning From Others, Taking The Lead. Health Affairs, 2000, 19, 9-22.	2.5	28
57	The science of biomedical computing. Medical Informatics = Medecine Et Informatique, 1984, 9, 185-193.	0.8	27
58	The application of certainty factors to neural computing for rule discovery. IEEE Transactions on Neural Networks, 2000, 11, 647-657.	4.8	27
59	Biomedical Data: Their Acquisition, Storage, and Use. , 2014, , 39-66.		25
60	50 Years of Informatics Research on Decision Support: Whatâ€™s Next. Methods of Information in Medicine, 2011, 50, 525-535.	0.7	24
61	A Methodology for Generating Computer-based Explanations of Decision-theoretic Advice. Medical Decision Making, 1988, 8, 290-303.	1.2	23
62	Dehumanization of Patient Care--Are Computers the Problem or the Solution?. Journal of the American Medical Informatics Association: JAMIA, 1994, 1, 76-78.	2.2	23
63	A framework for explaining decision-theoretic advice. Artificial Intelligence, 1994, 67, 201-243.	3.9	22
64	Development and evaluation of a context-based document representation for searching the medical literature. International Journal on Digital Libraries, 1997, 1, 288-296.	1.1	22
65	A computational model of reasoning from the clinical literature. Computer Methods and Programs in Biomedicine, 1987, 24, 139-149.	2.6	21
66	Temporal representation of clinical algorithms using expert-system and database tools. Journal of Biomedical Informatics, 1990, 23, 222-239.	0.7	21
67	Patient-specific explanation in models of chronic disease. Artificial Intelligence in Medicine, 1992, 4, 191-205.	3.8	21
68	The public health informatics infrastructure: anticipating its role in cancer. Cancer Causes and Control, 2006, 17, 861-869.	0.8	21
69	Update on Oncocin: A chemotherapy advisor for clinical oncology. Medical Informatics = Medecine Et Informatique, 1986, 11, 19-21.	0.8	20
70	Medical Informatics and Clinical Decision Making: The Science and the Pragmatics. Medical Decision Making, 1991, 11, S2-S14.	1.2	20
71	Are Medical Informatics and Nursing Informatics Distinct Disciplines?: The 1999 ACMI Debate. Journal of the American Medical Informatics Association: JAMIA, 2000, 7, 304-312.	2.2	20
72	Artificial Intelligence in Medicine: Weighing the Accomplishments, Hype, and Promise. Yearbook of Medical Informatics, 2019, 28, 257-262.	0.8	20

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73	Effect of an Artificial Intelligence Clinical Decision Support System on Treatment Decisions for Complex Breast Cancer. JCO Clinical Cancer Informatics, 2020, 4, 824-838.	1.0	19
74	President's column: subspecialty certification in clinical informatics. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 890-891.	2.2	15
75	Choice and Explanation in Medical Management. Medical Decision Making, 1987, 7, 22-31.	1.2	14
76	Training Synergies Between Medical Informatics and Health Services Research: Successes and Challenges. Journal of the American Medical Informatics Association: JAMIA, 2002, 9, 133-139.	2.2	14
77	Issues and Opportunities in Public Health Informatics: A Panel Discussion. Journal of Public Health Management and Practice, 2001, 7, 31-42.	0.7	13
78	Commentary: Informatics in Biomedicine and Health Care. Academic Medicine, 2009, 84, 818-820.	0.8	12
79	Artificial Intelligence Treatment Decision Support For Complex Breast Cancer Among Oncologists With Varying Expertise. JCO Clinical Cancer Informatics, 2019, 3, 1-15.	1.0	12
80	Clinical Decision-Support Systems. Computers in Health Care, 2001, , 573-609.	0.2	12
81	Computerized consultation system for selection of antimicrobial therapy. American Journal of Health-System Pharmacy, 1976, 33, 1304-1308.	0.5	11
82	Reasoning methods in medical consultation systems: Artificial intelligence approaches. Computer Programs in Biomedicine, 1984, 18, 5-13.	0.8	11
83	Doctors, patients, and computers: will information technology dehumanize health-care delivery?. Proceedings of the American Philosophical Society, 1993, 137, 390-8.	0.5	11
84	A global travelers' electronic health record template standard for personal health records: Figure 1. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 134-136.	2.2	10
85	Overlaying multiple sources of data to identify bottlenecks in clinical workflow. Journal of Biomedical Informatics: X, 2019, 100, 100004.	4.2	10
86	THOMAS: building Bayesian statistical expert systems to aid in clinical decision making. Computer Methods and Programs in Biomedicine, 1991, 35, 251-260.	2.6	9
87	Support for guideline development through error classification and constraint checking. Proceedings, 2002, , 607-11.	0.6	9
88	Cognitive models in training health professionals to protect patients' confidential information. International Journal of Medical Informatics, 2000, 60, 143-150.	1.6	8
89	Strategic Planning in Population Health and Public Health Practice: A Call to Action for Higher Education. Milbank Quarterly, 2016, 94, 109-125.	2.1	8
90	OPAL: Toward the Computer-Aided Design of Oncology Advice Systems. Computers and Medicine, 1988, , 166-180.	0.1	8

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91	CONSULTATION SYSTEMS FOR PHYSICIANS. , 1981, , 323-333.		8
92	Health care professional workstations: where are we now? â€¦ where should we be tomorrow?. International Journal of Bio-medical Computing, 1994, 34, 45-55.	0.5	7
93	A Proposal for Financially Sustainable Population Health Organizations. Population Health Management, 2014, 17, 255-256.	0.8	7
94	Biomedical Informatics: The Science and the Pragmatics. , 2014, , 3-37.		7
95	Research Training in Medical Informatics: The Stanford Experience. Journal Association of American Medical Colleges, 1989, 64, 575.	3.5	6
96	Knowledge-Based Systems. Annual Review of Computer Science, 1990, 4, 395-416.	0.4	6
97	CPOE and the facilitation of medication errors. Journal of Biomedical Informatics, 2005, 38, 257-258.	2.5	6
98	On exemplary scientific conduct regarding submission of manuscripts to biomedical informatics journals. Journal of Biomedical Informatics, 2006, 39, 1-2.	2.5	6
99	Discerning Patterns of Human Immunodeficiency Virus Risk in Healthy Young Adults. American Journal of Medicine, 2008, 121, 758-764.	0.6	6
100	Digital Medicine and Biomedical Informatics: Whatâ€™s in a Name?. Methods of Information in Medicine, 2016, 55, 389-391.	0.7	6
101	The organization and content of informatics doctoral dissertations. Journal of the American Medical Informatics Association: JAMIA, 2016, 23, 840-843.	2.2	6
102	Clinical Informatics: Emergence of a New Profession. , 2016, , 3-21.		6
103	Biomedical imaging and the evolution of medical informatics. Computerized Medical Imaging and Graphics, 1996, 20, 189-192.	3.5	5
104	JAMIA looks to the future amidst profound changes in the world of publishing. Journal of the American Medical Informatics Association: JAMIA, 2010, 17, 1-2.	2.2	5
105	The Creation of a New Discipline. Computers in Health Care, 2015, , 75-120.	0.2	5
106	The roles of the US National Library of Medicine and Donald A.B. Lindberg in revolutionizing biomedical and health informatics. Journal of the American Medical Informatics Association: JAMIA, 2021, 28, 2728-2737.	2.2	5
107	Thyroid Carcinoma With Spinal Cord Compression. JAMA - Journal of the American Medical Association, 1982, 247, 1565.	3.8	4
108	When Decision Support Doesn't Support. Medical Decision Making, 1995, 15, 187-188.	1.2	4

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109	On Exemplary Scientific Conduct Regarding Submission of Manuscripts to Biomedical Informatics Journals. Journal of the American Medical Informatics Association: JAMIA, 2006, 13, 113-114.	2.2	4
110	Biomedical Informatics in the Desert - A New and Unique Program at Arizona State University. Yearbook of Medical Informatics, 2008, 17, 150-156.	0.8	4
111	Medications in Single-Dose Vials and Implications of Discarded Injectable Drugs. JAMA - Journal of the American Medical Association, 2021, 325, 1507.	3.8	4
112	Biomedical Data: Their Acquisition, Storage, and Use. , 2021, , 45-75.		4
113	A Method for Managing Evidential Reasoning in a Hierarchical Hypothesis Space. , 2008, , 311-344.		4
114	Biomedical Informatics: Defining the Science and Its Role in Health Professional Education. Lecture Notes in Computer Science, 2011, , 711-714.	1.0	4
115	GESDOR - a generic execution model for sharing of computer-interpretable clinical practice guidelines. AMIA ... Annual Symposium proceedings, 2003, , 694-8.	0.2	4
116	GLEE--a model-driven execution system for computer-based implementation of clinical practice guidelines. Proceedings, 2002, , 855-9.	0.6	4
117	Computer Programs to Support Clinical Decision Making-Reply. JAMA - Journal of the American Medical Association, 1987, 258, 2375.	3.8	3
118	Use of a domain model to drive an interactive knowledge-editing tool. International Journal of Human Computer Studies, 1999, 51, 479-495.	3.7	3
119	Presentation of the Morris F. Collen Award to Joshua Lederberg, PhD. Journal of the American Medical Informatics Association: JAMIA, 2000, 7, 326-332.	2.2	3
120	Information Technology Support of Clinical Research: An Introduction. Information Systems Frontiers, 2003, 5, 415-419.	4.1	3
121	New JBI emphasis on translational bioinformatics. Journal of Biomedical Informatics, 2009, 42, 199-200.	2.5	3
122	Don E. Detmer and the American Medical Informatics Association: An Appreciation. Journal of the American Medical Informatics Association: JAMIA, 2009, 16, 429-438.	2.2	3
123	AMIA president's message. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 107-107.	2.2	3
124	Human-Intensive techniques. , 2007, , 207-226.		3
125	Problems in implementing the computer for continuing education. Mobius, 1983, 3, 52-55.	0.1	2
126	The Federal Role in the Health Information Infrastructure: A Debate of the Pros and Cons of Government Intervention. Journal of the American Medical Informatics Association: JAMIA, 1996, 3, 249-257.	2.2	2

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127	Connecting the Dots. Critical Care Medicine, 2018, 46, 163-164.	0.4	2
128	Problems in implementing the computer for continuing education. Mobius, 1987, 7, 67-70.	0.1	1
129	AMIA president's column: AMIA's corporate relations activities. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 727-728.	2.2	1
130	AMIA president's message. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 349-350.	2.2	1
131	AMIA president's column: AMIA and HIT policy activities. Journal of the American Medical Informatics Association: JAMIA, 2011, 18, 537-538.	2.2	1
132	JBI moves to new publishing models. Journal of Biomedical Informatics, 2015, 53, 1-2.	2.5	1
133	New JBI policy emphasizes substantive, practical methodological innovations for biomedical privacy and security papers. Journal of Biomedical Informatics, 2018, 82, 187-188.	2.5	1
134	Biomedical Informatics: The Science and the Pragmatics. , 2021, , 3-44.		1
135	Publishing Artificial Intelligence Research Papers: A Tale of Three Journals. Artificial Intelligence in Medicine, 2021, 113, 102037.	3.8	1
136	Building resiliency in emergency room physicians: anticipating the next catastrophe. BMJ Health and Care Informatics, 2021, 28, e100343.	1.4	1
137	AI Meets Decision Science: Emerging Synergies For Decision Support. , 1992, , 71-89.		1
138	Risky decisions despite counter evidence: modeling a culture of safer sexual practices. AMIA ... Annual Symposium proceedings, 2005, , 594-8.	0.2	1
139	A tribute to Karen Greenwood and her contributions to the American Medical Informatics Association. Journal of the American Medical Informatics Association: JAMIA, 2022, , .	2.2	1
140	A method for managing evidential reasoning in a hierarchical hypothesis space: a retrospective. Artificial Intelligence, 1993, 59, 43-47.	3.9	0
141	Retrospective on â€œProduction rules as a representation for a knowledge-based consultation programâ€• Artificial Intelligence, 1993, 59, 181-189.	3.9	0
142	On exemplary scientific conduct regarding submission of manuscripts to biomedical informatics journals. Computer Methods and Programs in Biomedicine, 2006, 81, 195-196.	2.6	0
143	Presentation of the 2008 Morris F. Collen Award to Robert A. Greenes. Journal of the American Medical Informatics Association: JAMIA, 2009, 16, 413-418.	2.2	0
144	President's column: reflections on AMIA's past 3 years. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 325-326.	2.2	0

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145	Human-Intensive Techniques. , 2014, , 285-308.		0
146	Letters to the Editor. Journal of Biomedical Informatics, 2018, 79, 143.	2.5	0
147	DISCARDED MEDICATIONS IN VIALS ARE A SYMPTOM OF OUR HEALTH CARE SYSTEM: A CALL TO ACTION. Journal of Managed Care & Specialty Pharmacy, 2021, 27, 689-690.	0.5	0
148	Reflections on the Role of Cognitive Science in Biomedical Informatics. Computers in Health Care, 2014, , 467-475.	0.2	0
149	Computer-Based Explanation of Multiattribute Decisions. , 1992, , 159-171.		0