Ben Shneiderman

List of Publications by Year
in descending order

160	12,906	36299	34984
papers	citations	51 h-index	98 g-index

168	168	168	6676
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tree visualization with tree-maps. ACM Transactions on Graphics, 1992, 11, 92-99.	7.2	1,059
2	The Reader-to-Leader Framework: Motivating Technology-Mediated Social Participation. AIS Transactions on Human-Computer Interaction, 2009, 1, 13-32.	1.5	499
3	Designing trust into online experiences. Communications of the ACM, 2000, 43, 57-59.	4.5	493
4	Creativity support tools: accelerating discovery and innovation. Communications of the ACM, 2007, 50, 20-32.	4.5	460
5	Visual information seeking. , 1994, , .		430
6	Universal usability. Communications of the ACM, 2000, 43, 84-91.	4.5	393
7	LifeLines: visualizing personal histories. , 1996, , .		360
8	Human-Centered Artificial Intelligence: Reliable, Safe & Trustworthy. International Journal of Human-Computer Interaction, 2020, 36, 495-504.	4.8	353
9	Dynamic queries for information exploration. , 1992, , .		330
10	The future of interactive systems and the emergence of direct manipulationâ€. Behaviour and Information Technology, 1982, 1, 237-256.	4.0	304
11	Strategies for evaluating information visualization tools. , 2006, , .		284
12	Syntactic/semantic interactions in programmer behavior: A model and experimental results. International Journal of Computer & Information Sciences, 1979, 8, 219-238.	0.2	250
13	Dynamic Query Tools for Time Series Data Sets: Timebox Widgets for Interactive Exploration. Information Visualization, 2004, 3, 1-18.	1.9	246
14	Determining Causes and Severity of End-User Frustration. International Journal of Human-Computer Interaction, 2004, 17, 333-356.	4.8	238
15	High precision touchscreens: design strategies and comparisons with a mouse. International Journal of Man-Machine Studies, 1991, 34, 593-613.	0.7	231
16	Bridging the Gap Between Ethics and Practice. ACM Transactions on Interactive Intelligent Systems, 2020, 10, 1-31.	3.7	222
17	Split menus. ACM Transactions on Computer-Human Interaction, 1994, 1, 27-51.	5.7	221
18	The dynamic HomeFinder. , 1992, , .		215

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19	Network Visualization by Semantic Substrates. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 733-740.	4.4	215
20	Temporal Event Sequence Simplification. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 2227-2236.	4.4	205
21	Experimental investigations of the utility of detailed flowcharts in programming. Communications of the ACM, 1977, 20, 373-381.	4.5	196
22	The Eyes Have It: A Task by Data Type Taxonomy for Information Visualizations. , 2003, , 364-371.		189
23	Community response grids: E-government, social networks, and effective emergency management. Telecommunications Policy, 2007, 31, 592-604.	5.3	183
24	Creativity Support Tools: Report From a U.S. National Science Foundation Sponsored Workshop. International Journal of Human-Computer Interaction, 2006, 20, 61-77.	4.8	173
25	Exploratory experiments in programmer behavior. International Journal of Computer & Information Sciences, 1976, 5, 123-143.	0.2	172
26	A Rank-by-Feature Framework for Interactive Exploration of Multidimensional Data. Information Visualization, 2005, 4, 96-113.	1.9	165
27	Science 2.0. Science, 2008, 319, 1349-1350.	12.6	157
28	Balancing Systematic and Flexible Exploration of Social Networks. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 693-700.	4.4	154
29	Improving Healthcare with Interactive Visualization. Computer, 2013, 46, 58-66.	1.1	153
30	Sorting out searching. Communications of the ACM, 1998, 41, 95-98.	4.5	144
31	Inventing Discovery Tools: Combining Information Visualization with Data Mining. Information Visualization, 2002, 1, 5-12.	1.9	134
32	Snap-together visualization: can users construct and operate coordinated visualizations?. International Journal of Human Computer Studies, 2000, 53, 715-739.	5.6	130
33	Creativity support tools. Communications of the ACM, 2002, 45, 116-120.	4.5	127
34	Motif simplification. , 2013, , .		127
35	eHealth Research from the Userâ€™s Perspective. American Journal of Preventive Medicine, 2007, 32, S97-S103.	3.0	121
36	Program indentation and comprehensibility. Communications of the ACM, 1983, 26, 861-867.	4.5	117

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37	Embedded menus: selecting items in context. Communications of the ACM, 1986, 29, 312-318.	4.5	115
38	Workplace user frustration with computers: an exploratory investigation of the causes and severity. Behaviour and Information Technology, 2006, 25, 239-251.	4.0	115
39	Temporal Summaries: Supporting Temporal Categorical Searching, Aggregation and Comparison. IEEE Transactions on Visualization and Computer Graphics, 2009, 15, 1049-1056.	4.4	111
40	Investigating touchscreen typing: the effect of keyboard size on typing speed. Behaviour and Information Technology, 1993, 12, 17-22.	4.0	103
41	A Visual Interface for Multivariate Temporal Data: Finding Patterns of Events across Multiple Histories. , 2006, , .		101
42	Clarifying Search. D-Lib Magazine, 1997, 3, .	0.5	94
43	A graphical filter/flow representation of Boolean queries: A prototype implementation and evaluation. Journal of the Association for Information Science and Technology, 1993, 44, 327-339.	1.0	85
44	Navigating in hyperspace. Communications of the ACM, 1994, 37, 87-96.	4.5	85
45	Users can change their web search tactics: Design guidelines for categorized overviews. Information Processing and Management, 2008, 44, 463-484.	8.6	80
46	Severity and impact of computer user frustration: A comparison of student and workplace users. Interacting With Computers, 2006, 18, 187-207.	1.5	79
47	Data Sonification for Users with Visual Impairment. ACM Transactions on Computer-Human Interaction, 2008, 15, 1-28.	5.7	75
48	Previews and overviews in digital libraries: Designing surrogates to support visual information seeking. Journal of the Association for Information Science and Technology, 2000, 51, 380-393.	1.0	73
49	A model for computer frustration: the role of instrumental and dispositional factors on incident, session, and post-session frustration and mood. Computers in Human Behavior, 2006, 22, 941-961.	8.5	70
50	Interface and data architecture for query preview in networked information systems. ACM Transactions on Information Systems, 1999, 17, 320-341.	4.9	68
51	Perspective-based Usability Inspection: An Empirical Validation of Efficacy. Empirical Software Engineering, 1999, 4, 43-69.	3.9	67
52	Knowledge discovery in high-dimensional data: case studies and a user survey for the rank-by-feature framework. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 311-322.	4.4	67
53	An exploratory evaluation of three interfaces for browsing large hierarchical tables of contents. ACM Transactions on Information Systems, 1994, 12, 383-406.	4.9	65
54	Relateâ€“Createâ€“Donate: a teaching/learning philosophy for the cyber-generation. Computers and Education, 1998, 31, 25-39.	8.3	64

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55	Rapid understanding of scientific paper collections: Integrating statistics, text analytics, and visualization. Journal of the Association for Information Science and Technology, 2012, 63, 2351-2369.	2.6	63
56	Using Treemaps to Visualize the Analytic Hierarchy Process. Information Systems Research, 1995, 6, 357-375.	3.7	61
57	A Task Taxonomy for Network Evolution Analysis. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 365-376.	4.4	61
58	Governing AI safety through independent audits. Nature Machine Intelligence, 2021, 3, 566-571.	16.0	61
59	Windows of opportunity in electronic classrooms. Communications of the ACM, 1995, 38, 19-24.	4.5	59
60	Multiparty Grammars and Related Features for Defining Interactive Systems. IEEE Transactions on Systems, Man, and Cybernetics, 1982, 12, 148-154.	0.9	56
61	Inventing discovery tools: combining information visualization with data mining. Information Visualization, 2002, 1, 5-12.	1.9	55
62	Design Lessons From Aiâ€™s Two Grand Goals: Human Emulation and Useful Applications. IEEE Transactions on Technology and Society, 2020, 1, 73-82.	3.2	53
63	The dangers of faulty, biased, or malicious algorithms requires independent oversight. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13538-13540.	7.1	49
64	Universal usability as a stimulus to advanced interface design. Behaviour and Information Technology, 2001, 20, 367-376.	4.0	43
65	Web science. Communications of the ACM, 2007, 50, 25-27.	4.5	42
66	Social network analysis: Measuring, mapping, and modeling collections of connections. , 2020, , 31-51.		42
67	Visualizing Change over Time Using Dynamic Hierarchies: TreeVersity2 and the StemView. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 2566-2575.	4.4	41
68	Evaluating three museum installations of a hypertext system. Journal of the Association for Information Science and Technology, 1989, 40, 172-182.	1.0	40
69	A Spectrum of Automatic Hypertext Constructions. New Review of Hypermedia and Multimedia, 1989, 1, 179-195.	1.2	39
70	Designing Semantic Substrates for Visual Network Exploration. Information Visualization, 2007, 6, 281-300.	1.9	39
71	Group-in-a-Box Layout for Multi-faceted Analysis of Communities. , 2011, , .		38
72	Novel user interface design for medication reconciliation: an evaluation of Twinlist. Journal of the American Medical Informatics Association: JAMIA, 2015, 22, 340-349.	4.4	37

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73	Exploring auction databases through interactive visualization. Decision Support Systems, 2006, 42, 1521-1538.	5.9	35
74	Emergent patterns of teaching/learning in electronic classrooms. Educational Technology Research and Development, 1998, 46, 23-42.	2.8	34
75	Representing Unevenly-Spaced Time Series Data for Visualization and Interactive Exploration. Lecture Notes in Computer Science, 2005, , 835-846.	1.3	33
76	Designing menu selection systems. Journal of the Association for Information Science and Technology, 1986, 37, 57-70.	1.0	32
77	PUBLIC HEALTH: 911.gov. Science, 2007, 315, 944-944.	12.6	31
78	We can design better user interfaces: A review of human-computer interaction styles. Ergonomics, 1988, 31, 699-710.	2.1	30
79	Responsible AI. Communications of the ACM, 2021, 64, 32-35.	4.5	29
80	The Big Picture for Big Data: Visualization. Science, 2014, 343, 730-730.	12.6	28
81	Looking for the bright side of user interface agents. Interactions, 1995, 2, 13-15.	1.0	26
82	Do You Know the Way to SNA?: A Process Model for Analyzing and Visualizing Social Media Network Data. , 2012, , .		25
83	EventGraphs: Charting Collections of Conference Connections. , 2011, , .		24
84	Incorporating String Search in a Hypertext System: User Interface and Signature File Design Issues. New Review of Hypermedia and Multimedia, 1990, 2, 183-200.	1.2	23
85	Learning a menu selection tree: training methods compared. Behaviour and Information Technology, 1985, 4, 81-91.	4.0	22
86	Inventing Discovery Tools: Combining Information Visualization with Data Mining. Lecture Notes in Computer Science, 2001, , 17-28.	1.3	22
87	A graphical filter/flow representation of Boolean queries: A prototype implementation and evaluation. , 1993, 44, 327.		22
88	The end of zero-hit queries: query previews for NASAâ€™s Global Change Master Directory. International Journal on Digital Libraries, 1999, 2, 79-90.	1.5	21
89	Human values and the future of technology: a declaration of empowerment. ACM SIGCAS Computers and Society, 1990, 20, 1-6.	0.1	20
90	NetVisia: Heat Map & Matrix Visualization of Dynamic Social Network Statistics & Content. , 2011, , .		20

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91	Using interactive visualizations of WWW log data to characterize access patterns and inform site design. Journal of the Association for Information Science and Technology, 2001, 52, 331-343.	2.6	19
92	Time Stress Effects on Two Menu Selection Systems. Proceedings of the Human Factors Society Annual Meeting, 1987, 31, 727-731.	0.1	17
93	Twin-Win Model: A human-centered approach to research success. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12590-12594.	7.1	17
94	Facilitating data exploration with query previews: A study of user performance and preference. Behaviour and Information Technology, 2000, 19, 393-403.	4.0	16
95	Monitoring Academic Conferences: Real-Time Visualization and Retrospective Analysis of Backchannel Conversations. , 2012, , .		16
96	Using rhythms of relationships to understand e-mail archives. Journal of the Association for Information Science and Technology, 2006, 57, 1936-1948.	2.6	15
97	Apply or Die: On the Role and Assessment of Application Papers in Visualization. IEEE Computer Graphics and Applications, 2017, 37, 96-104.	1.2	15
98	An experimental evaluation of three touch screen strategies within a hypertext database. International Journal of Human-Computer Interaction, 1989, 1, 41-52.	4.8	14
99	Innovation trajectories for information visualizations: Comparing treemaps, cone trees, and hyperbolic trees. Information Visualization, 2012, 11, 87-105.	1.9	14
100	Visual overviews for discovering key papers and influences across research fronts. Journal of the Association for Information Science and Technology, 2009, 60, 2219-2228.	2.6	13
101	Interactive Network Exploration to Derive Insights: Filtering, Clustering, Grouping, and Simplification. Lecture Notes in Computer Science, 2013, , 2-18.	1.3	13
102	Increasing Recognition of Wrong-Patient Errors through Improved Interface Design of a Computerized Provider Order Entry System. International Journal of Human-Computer Interaction, 2018, 34, 383-398.	4.8	13
103	A Temporal Pattern Search Algorithm for Personal History Event Visualization. IEEE Transactions on Knowledge and Data Engineering, 2012, 24, 799-812.	5.7	12
104	TreeVersity. Transportation Research Record, 2013, 2392, 48-58.	1.9	12
105	Discovering temporal changes in hierarchical transportation data: Visual analytics & text reporting tools. Transportation Research Part C: Emerging Technologies, 2015, 51, 167-179.	7.6	12
106	An evaluation of jump-ahead techniques in menu selection. Behaviour and Information Technology, 1987, 6, 97-108.	4.0	11
107	Visual Information Seeking: Tight Coupling of Dynamic Query Filters with Starfield Displays. , 2003, , 7-13.		11
108	Colourâ€coded pixelâ€based highly interactive Web mapping for georeferenced data exploration. International Journal of Geographical Information Science, 2005, 19, 413-428.	4.8	11

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109	Community Response Grids: Using Information Technology to Help Communities Respond to Bioterror Emergencies. Biosecurity and Bioterrorism, 2007, 5, 335-346.	1.2	11
110	Enabling teachers to explore grade patterns to identify individual needs and promote fairer student assessment. Computers and Education, 2008, 51, 1467-1485.	8.3	11
111	A photo history of SIGCHI. Interactions, 2002, 9, 17-23.	1.0	11
112	Future directions for humanâ€computer interaction. International Journal of Human-Computer Interaction, 1990, 2, 73-90.	4.8	10
113	Designing to Facilitate Browsing: A Look Back at the Hyperties Workstation Browser. New Review of Hypermedia and Multimedia, 1991, 3, 101-117.	1.2	10
114	Visualizing medical records with LifeLines. , 1998, , .		10
115	Component-based, user-constructed, multiple-view visualization. , 2001, , .		9
116	Exploring personal media: A spatial interface supporting user-defined semantic regions. Journal of Visual Languages and Computing, 2006, 17, 254-283.	1.8	9
117	Graph Analytics-Lessons Learned and Challenges Ahead. IEEE Computer Graphics and Applications, 2011, 31, 18-29.	1.2	9
118	Reducing wrong patient selection errors: exploring the design space of user interface techniques. AMIA ... Annual Symposium proceedings, 2014, 2014, 1056-65.	0.2	9
119	Engagement and construction: Educational strategies for the post-TV era. Journal of Computing in Higher Education, 1993, 4, 106-116.	6.1	8
120	Finding governmental statistical data on the Web: A study of categorically organized links for the FedStats topics page. Journal of the Association for Information Science and Technology, 2004, 55, 1008-1015.	2.6	8
121	A National Initiative for Social Participation. Science, 2009, 323, 1426-1427.	12.6	8
122	TreeCovery: Coordinated dual treemap visualization for exploring the Recovery Act. Government Information Quarterly, 2012, 29, 212-222.	6.8	8
123	Technology-Mediated Social Participation: The Next 25 Years of HCI Challenges. Lecture Notes in Computer Science, 2011, , 3-14.	1.3	8
124	Visual Exploration across Biomedical Databases. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 536-550.	3.0	7
125	Exploring Data Distributions: Visual Design and Evaluation. International Journal of Human-Computer Interaction, 2013, 29, 77-95.	4.8	7
126	Designing AI to Work WITH or FOR People?. , 2021, , .		7

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127	Human Responsibility for Autonomous Agents. IEEE Intelligent Systems, 2007, 22, 60-61.	4.0	6
128	Evaluating visual and statistical exploration of scientific literature networks. , 2011, , .		6
129	TreeVersity: Comparing tree structures by topology and node's attributes differences. , 2011, , .		6
130	Artificial Intelligence for Humankind: A Panel on How to Create Truly Interactive and Human-Centered AI for the Benefit of Individuals and Society. Lecture Notes in Computer Science, 2021, , 335-339.	1.3	6
131	Snap-Together Visualization: A User Interface for Coordinating Visualizations via Relational Schemata. , 2003, , 341-348.		5
132	MediaFinder. , 2003, , .		4
133	Toward an enriched (and revitalized) sense of help: Summary of an ASIS&T 2005 panel session. Bulletin of the American Society for Information Science, 2007, 32, 23-26.	0.2	4
134	Commentary: extraordinary excitement empowering enhancing everyone. Human-Computer Interaction, 2022, 37, 243-245.	4.4	4
135	Distance learning. , 1998, , .		3
136	Supporting statistical electronic table usage by citizens. Communications of the ACM, 2003, 46, 52-54.	4.5	3
137	Creativity and collaboration: Revisiting cybernetic serendipity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1837-1843.	7.1	3
138	Using interactive visualizations of WWW log data to characterize access patterns and inform site design. , 2001, 52, 331.		3
139	Codex, memex, genex. , 1998, , .		2
140	Visually Exploring Social Participation in Encyclopedia of Life. , 2012, , .		2
141	Installation, orientation, and layout. , 2020, , 55-66.		2
142	Human-Centered AI: A New Synthesis. Lecture Notes in Computer Science, 2021, , 3-8.	1.3	2
143	Tutorial: Human-Centered AI: Reliable, Safe and Trustworthy. , 2021, , .		2
144	Evaluating three museum installations of a hypertext system. , 1989, 40, 172.		2

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145	Understanding human reactivites and relationships. Interactions, 2002, 9, 40-53.	1.0	2
146	Advanced graphic user interfaces. ACM Computing Surveys, 1996, 28, 144.	23.0	2
147	Elastic windows: design, implementation, and evaluation of multi-window operations. Software - Practice and Experience, 1998, 28, 225-248.	3.6	1
148	Information visualization advanced interface and Web design. , 1998, , .		1
149	Using elastic windows for World-Wide Web Browsing. , 1998, , .		1
150	Broadening Access to Large Online Databases by Generalizing Query Previews. , 2003, , 31-37.		1
151	Visualizing Digital Library Search Results with Categorical and Hierarchical Axes. , 2003, , 169-177.		1
152	Inventing discovery tools: combining information visualization with data miningâ€â€Keynote for Discovery Science 2001 Conference, November 25â€“28, 2001, Washington, DC.. , 2003, , 378-385.		1
153	Visualizing Functional Data with an Application to eBayâ€™s Online Auctions. , 2008, , 873-898.		1
154	Lightning and Thunder: The Early Days of Interactive Information Visualization at the University of Maryland. IEEE Computer Graphics and Applications, 2022, 42, 103-113.	1.2	1
155	Envisioning help resources for the future information ecology: Toward an enriched sense of help. Proceedings of the American Society for Information Science and Technology, 2006, 42, n/a-n/a.	0.2	0
156	Designing communityâ€based emergency communication system: A preliminary study. Proceedings of the American Society for Information Science and Technology, 2008, 45, 1-3.	0.2	0
157	Understanding social computing participation with visual exploration tools. , 2009, , .		0
158	A trip report on creativity & cognition 1999. ACM SIGCHI Bulletin, 2000, 32, 43-46.	0.1	0
159	Direct Annotation: A Drag-and-Drop Strategy for Labeling Photos. , 2003, , 58-65.		0
160	Commentary on â€œVisualization in Operations Management Researchâ€• INFORMS Journal on Data Science, 0, , .	1.6	0