

Alan M Maceachren

List of Publications by Year in descending order

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121
papers

7,075
citations

70961

41
h-index

71532

76
g-index

133
all docs

133
docs citations

133
times ranked

4156
citing authors

#	ARTICLE	IF	CITATIONS
1	Research Challenges in Geovisualization. <i>Cartography and Geographic Information Science</i> , 2001, 28, 3-12.	1.4	464
2	Visualizing Geospatial Information Uncertainty: What We Know and What We Need to Know. <i>Cartography and Geographic Information Science</i> , 2005, 32, 139-160.	1.4	413
3	Exploratory cartographic visualization: Advancing the agenda. <i>Computers and Geosciences</i> , 1997, 23, 335-343.	2.0	279
4	Visualizing Uncertain Information. <i>Cartographic Perspectives</i> , 1992, , 10-19.	0.1	260
5	A Visualization System for Space-Time and Multivariate Patterns (VIS-STAMP). <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2006, 12, 1461-1474.	2.9	243
6	SensePlace2: GeoTwitter analytics support for situational awareness. , 2011, , .		240
7	Animation and the Role of Map Design in Scientific Visualization. <i>Cartography and Geographic Information Science</i> , 1992, 19, 201-214.	1.1	229
8	Visualization in Modern Cartography: Setting the Agenda. <i>Modern Cartography Series</i> , 1994, , 1-12.	0.3	196
9	Visual Semiotics & Uncertainty Visualization: An Empirical Study. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012, 18, 2496-2505.	2.9	185
10	Geovisualization for knowledge construction and decision support. <i>IEEE Computer Graphics and Applications</i> , 2004, 24, 13-17.	1.0	180
11	Developing a conceptual framework for visually-enabled geocollaboration. <i>International Journal of Geographical Information Science</i> , 2004, 18, 1-34.	2.2	166
12	Geovisual analytics to enhance spatial scan statistic interpretation: an analysis of U.S. cervical cancer mortality. <i>International Journal of Health Geographics</i> , 2008, 7, 57.	1.2	159
13	Constructing knowledge from multivariate spatiotemporal data: integrating geographical visualization with knowledge discovery in database methods. <i>International Journal of Geographical Information Science</i> , 1999, 13, 311-334.	2.2	151
14	Itâ€™s a long, long walk: accessibility to hospitals, maternity and integrated health centers in Niger. <i>International Journal of Health Geographics</i> , 2012, 11, 24.	1.2	133
15	Visualizing Georeferenced Data: Representing Reliability of Health Statistics. <i>Environment and Planning A</i> , 1998, 30, 1547-1561.	2.1	124
16	Multivariate Analysis and Geovisualization with an Integrated Geographic Knowledge Discovery Approach. <i>Cartography and Geographic Information Science</i> , 2005, 32, 113-132.	1.4	124
17	How to Assess Visual Communication of Uncertainty? A Systematic Review of Geospatial Uncertainty Visualisation User Studies. <i>Cartographic Journal</i> , 2014, 51, 372-386.	0.8	120
18	A PATTERN IDENTIFICATION APPROACH TO CARTOGRAPHIC VISUALIZATION. <i>Cartographica</i> , 1990, 27, 64-81.	0.2	107

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19	Combining Usability Techniques to Design Geovisualization Tools for Epidemiology. <i>Cartography and Geographic Information Science</i> , 2005, 32, 243-255.	1.4	103
20	Evaluating the usability of visualization methods in an exploratory geovisualization environment. <i>International Journal of Geographical Information Science</i> , 2006, 20, 425-448.	2.2	98
21	A Comparison of Animated Maps with Static Small-Multiple Maps for Visually Identifying Space-Time Clusters. <i>Annals of the American Association of Geographers</i> , 2006, 96, 740-753.	3.0	93
22	Interface Design for Geographic Visualization: Tools for Representing Reliability. <i>Cartography and Geographic Information Science</i> , 1996, 23, 59-77.	1.1	89
23	Compactness of Geographic Shape: Comparison and Evaluation of Measures. <i>Geografiska Annaler, Series B: Human Geography</i> , 1985, 67, 53-67.	0.8	87
24	Designing a human-centered, multimodal GIS interface to support emergency management. , 2002, , .		86
25	Enabling collaborative geoinformation access and decision-making through a natural, multimodal interface. <i>International Journal of Geographical Information Science</i> , 2005, 19, 293-317.	2.2	84
26	A typology for visualizing uncertainty. , 2005, 5669, 146.		82
27	User-Centered Design for Interactive Maps: A Case Study in Crime Analysis. <i>ISPRS International Journal of Geo-Information</i> , 2015, 4, 262-301.	1.4	75
28	Challenging problems of geospatial visual analytics. <i>Journal of Visual Languages and Computing</i> , 2011, 22, 251-256.	1.8	74
29	Geo-Located Tweets. Enhancing Mobility Maps and Capturing Cross-Border Movement. <i>PLoS ONE</i> , 2015, 10, e0129202.	1.1	68
30	Developing a Geographic Visualization Tool to Support Earth Science Learning. <i>Cartography and Geographic Information Science</i> , 2000, 27, 279-293.	1.4	67
31	Compactness of Geographic Shape: Comparison and Evaluation of Measures. <i>Geografiska Annaler, Series B: Human Geography</i> , 1985, 67, 53.	0.8	67
32	Sampling and Isometric Mapping of Continuous Geographic Surfaces. <i>The American Cartographer</i> , 1987, 14, 299-320.	0.2	66
33	Evaluating the effect of visually represented geodata uncertainty on decision-making: systematic review, lessons learned, and recommendations. <i>Cartography and Geographic Information Science</i> , 2017, 44, 1-21.	1.4	65
34	GeoCorpora: building a corpus to test and train microblog geoparsers. <i>International Journal of Geographical Information Science</i> , 2018, 32, 1-29.	2.2	65
35	GeoTxt: A scalable geoparsing system for unstructured text geolocation. <i>Transactions in GIS</i> , 2019, 23, 118-136.	1.0	57
36	Application of Environmental Learning Theory to Spatial Knowledge Acquisition from Maps. <i>Annals of the American Association of Geographers</i> , 1992, 82, 245-274.	3.0	56

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37	Animated Maps of Aggregate Data: Conceptual and Practical Problems. <i>Cartography and Geographic Information Science</i> , 1991, 18, 221-229.	1.1	54
38	TRAVEL TIME AS THE BASIS OF COGNITIVE DISTANCE— . <i>Professional Geographer</i> , 1980, 32, 30-36.	1.0	51
39	Map Complexity: Comparison and Measurement. <i>The American Cartographer</i> , 1982, 9, 31-46.	0.2	50
40	Supporting visual analysis of federal geospatial statistics. <i>Communications of the ACM</i> , 2003, 46, 59-60.	3.3	50
41	Virtual environments for geographic visualization. , 1999, , .		49
42	Visualization for exploration of spatial data. <i>International Journal of Geographical Information Science</i> , 1999, 13, 285-287.	2.2	49
43	Exploring high-D spaces with multiform matrices and small multiples. , 2003, , 31-38.		47
44	The Role of Complexity and Symbolization Method in Thematic Map Effectiveness. <i>Annals of the American Association of Geographers</i> , 1982, 72, 495-513.	3.0	44
45	Building a geocollaboratory: Supporting Human—Environment Regional Observatory (HERO) collaborative science activities. <i>Computers, Environment and Urban Systems</i> , 2006, 30, 201-225.	3.3	42
46	Design and Implementation of a Model, Web-based, GIS-Enabled Cancer Atlas. <i>Cartographic Journal</i> , 2008, 45, 246-260.	0.8	42
47	Conditioned Choropleth Maps and Hypothesis Generation. <i>Annals of the American Association of Geographers</i> , 2005, 95, 32-53.	3.0	41
48	Visually-Enabled Active Deep Learning for (Geo) Text and Image Classification: A Review. <i>ISPRS International Journal of Geo-Information</i> , 2018, 7, 65.	1.4	38
49	Supporting Group Work in Crisis Management: Visually Mediated Human — GIS — Human Dialogue. <i>Environment and Planning B: Planning and Design</i> , 2006, 33, 435-456.	1.7	35
50	Visual Exploration and Analysis of Historic Hotel Visits. <i>Information Visualization</i> , 2007, 6, 89-103.	1.2	35
51	Distributed usability evaluation of the Pennsylvania Cancer Atlas. <i>International Journal of Health Geographics</i> , 2008, 7, 36.	1.2	35
52	GeoTxt. , 2013, , .		34
53	An evolving cognitive-semiotic approach to geographic visualization and knowledge construction. <i>Information Design Journal</i> , 2001, 10, 26-36.	0.4	33
54	Spatiotemporal crime analysis in U.S. law enforcement agencies: Current practices and unmet needs. <i>Government Information Quarterly</i> , 2013, 30, 226-240.	4.0	33

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55	Moving Geovisualization toward Support for Group Work. , 2005, , 445-461.		32
56	Informing geospatial toolset design: Understanding the process of cancer data exploration and analysis. Health and Place, 2008, 14, 576-607.	1.5	32
57	Geovisual analytics to support crisis management: Information foraging for geo-historical context. Information Visualization, 2012, 11, 339-359.	1.2	32
58	Learning Spatial Information from Maps: Can Orientation-Specificity Be Overcome?â—. Professional Geographer, 1992, 44, 431-443.	1.0	29
59	Designing a web-based learning portal for geographic visualization and analysis in public health. Health Informatics Journal, 2011, 17, 191-208.	1.1	29
60	SensePlace3: a geovisual framework to analyze placeâ€™timeâ€™ attribute information in social media. Cartography and Geographic Information Science, 2018, 45, 420-437.	1.4	28
61	A Linear View of the World: Strip Maps as a Unique Form of Cartographic Representation. The American Cartographer, 1986, 13, 7-26.	0.2	26
62	Natural Conversational Interfaces to Geospatial Databases. Transactions in GIS, 2005, 9, 199-221.	1.0	26
63	Supporting the Process of Exploring and Interpreting Spaceâ€™Time Multivariate Patterns: The Visual Inquiry Toolkit. Cartography and Geographic Information Science, 2008, 35, 33-50.	1.4	26
64	Geovisual analytics and the science of interaction: an empirical interaction study. Cartography and Geographic Information Science, 2016, 43, 30-54.	1.4	26
65	Visualization for constructing and sharing geo-scientific concepts. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5279-5286.	3.3	24
66	Human-GIS interaction issues in crisis response. International Journal of Risk Assessment and Management, 2006, 6, 388.	0.2	23
67	Supporting geographically-aware web document foraging and sensemaking. Computers, Environment and Urban Systems, 2011, 35, 192-207.	3.3	23
68	Symbol Store: sharing map symbols for emergency management. Cartography and Geographic Information Science, 2013, 40, 415-426.	1.4	22
69	Advancing Geovisualization. , 2005, , 691-703.		22
70	Communicating Vague Spatial Concepts in Human-GIS Interactions: A Collaborative Dialogue Approach. Lecture Notes in Computer Science, 2003, , 287-300.	1.0	21
71	Geovisualization and GIScience. Cartography and Geographic Information Science, 2005, 32, 67-68.	1.4	20
72	Card Sorting For Cartographic Research and Practice. Cartography and Geographic Information Science, 2011, 38, 89-99.	1.4	20

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73	Multivariate Display of Geographic Data: Applications in Earth System Science. <i>Modern Cartography Series</i> , 1994, 2, 287-312.	0.3	20
74	MENTAL IMAGE TRANSFORMATIONS IN TERRAIN MAP COMPARISON. <i>Cartographica</i> , 1992, 29, 46-59.	0.2	19
75	Geovisual Analytics Approach to Exploring Public Political Discourse on Twitter. <i>ISPRS International Journal of Geo-Information</i> , 2015, 4, 337-366.	1.4	19
76	Leveraging Big (Geo) Data with (Geo) Visual Analytics: Place as the Next Frontier. <i>Advances in Geographic Information Science</i> , 2017, , 139-155.	0.3	19
77	Constructing Overview + Detail Dendrogram-Matrix Views. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2009, 15, 889-896.	2.9	18
78	Cognitive Themes Emerging from Air Photo Interpretation Texts Published to 1960. <i>ISPRS International Journal of Geo-Information</i> , 2015, 4, 551-571.	1.4	17
79	Map-Mediated GeoCollaborative Crisis Management. <i>Lecture Notes in Computer Science</i> , 2005, , 429-435.	1.0	16
80	Developing Map Symbol Standards through an Iterative Collaboration Process. <i>Environment and Planning B: Planning and Design</i> , 2012, 39, 1034-1048.	1.7	16
81	Geoinformation Technologies to Support Collaborative Emergency Management. <i>Integrated Series on Information Systems</i> , 2008, , 395-420.	0.1	16
82	HerbariaViz: A web-based client-server interface for mapping and exploring flora observation data. <i>Ecological Informatics</i> , 2011, 6, 93-110.	2.3	15
83	Guest Editors' Introduction: Exploring Geovisualization. <i>IEEE Computer Graphics and Applications</i> , 2006, 26, 20-21.	1.0	14
84	The roles of social domains, behavioral risk, health care resources, and chlamydia in spatial clusters of US cervical cancer mortality: not all the clusters are the same. <i>Cancer Causes and Control</i> , 2010, 21, 1669-1683.	0.8	14
85	Cartography as an Academic Field: A Lost Opportunity or a New Beginning?. <i>Cartographic Journal</i> , 2013, 50, 166-170.	0.8	13
86	Characterizing traveling fans: a workflow for event-oriented travel pattern analysis using Twitter data. <i>International Journal of Geographical Information Science</i> , 2020, 34, 2497-2516.	2.2	13
87	Tracing Conceptual and Geospatial Diffusion of Knowledge. <i>Lecture Notes in Computer Science</i> , 2007, , 265-274.	1.0	13
88	Multimodal interface platform for geographical information systems (GeoMIP) in crisis management. , 2004, , .		12
89	A Geovisual Analytic Approach to Understanding Geo-Social Relationships in the International Trade Network. <i>PLoS ONE</i> , 2014, 9, e88666.	1.1	12
90	GeoAnnotator: A Collaborative Semi-Automatic Platform for Constructing Geo-Annotated Text Corpora. <i>ISPRS International Journal of Geo-Information</i> , 2019, 8, 161.	1.4	12

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91	Art and Cartography: Six Historical Essays. <i>Geographical Review</i> , 1988, 78, 451.	0.9	11
92	Geo-historical context support for information foraging and sensemaking: Conceptual model, implementation, and assessment. , 2010, , .		11
93	Construction and first analysis of a corpus for the evaluation and training of microblog/twitter geoparsers. , 2014, , .		11
94	The Evolution of Computer Mapping and Its Implications for Geography. <i>Journal of Geography</i> , 1987, 86, 100-108.	1.8	10
95	Visual Analysis of Historic Hotel Visitation Patterns. , 2006, , .		10
96	Integrating scientific modeling and supporting dynamic hazard management with a GeoAgent-based representation of human-environment interactions: A drought example in Central Pennsylvania, USA. <i>Environmental Modelling and Software</i> , 2009, 24, 1501-1512.	1.9	10
97	Spatial-social network visualization for exploratory data analysis. , 2011, , .		10
98	The geography of sentiment towards the Women's March of 2017. <i>PLoS ONE</i> , 2020, 15, e0233994.	1.1	10
99	Retooling Collaboration: A Vision for Environmental Change Research. <i>Environment</i> , 2005, 47, 8-21.	0.8	9
100	HEALTH GeoJunction: place-time-concept browsing of health publications. <i>International Journal of Health Geographics</i> , 2010, 9, 23.	1.2	9
101	GeoDialogue: A Software Agent Enabling Collaborative Dialogues between a User and a Conversational GIS. , 2008, , .		6
102	A geovisual analytics exploration of the OpenStreetMap crowd. <i>Cartography and Geographic Information Science</i> , 2018, 45, 140-155.	1.4	6
103	Graph-based visual analysis for large-scale hydrological modeling. <i>Information Visualization</i> , 2017, 16, 205-216.	1.2	5
104	GeoCAM: A geovisual analytics workspace to contextualize and interpret statements about movement. <i>Journal of Spatial Information Science</i> , 2011, , .	1.1	5
105	Resolution Control for Balancing Overview and Detail in Multivariate Spatial Analysis. <i>Cartographic Journal</i> , 2008, 45, 261-273.	0.8	4
106	(re)Considering Bertin in the age of big data and visual analytics. <i>Cartography and Geographic Information Science</i> , 2019, 46, 101-118.	1.4	4
107	Erforschung von Bewegungsbeschreibungen durch geovisuelle Analytik. <i>KN - Journal of Cartography and Geographic Information</i> , 2022, 72, 5-27.	1.6	4
108	Map Use and Map Making Education: Attention to Sources of Geographic Information. <i>Cartographic Journal</i> , 1986, 23, 115-122.	0.8	3

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109	Exploring Regional Variation in Spatial Language Using Spatially Stratified Web-Sampled Route Direction Documents. <i>Spatial Cognition and Computation</i> , 2014, 14, 255-283.	0.6	3
110	TIN-based Tag Map Layout. <i>Cartographic Journal</i> , 2019, 56, 101-116.	0.8	3
111	Utility and usability of intrinsic tag maps. <i>Cartography and Geographic Information Science</i> , 2020, 47, 291-304.	1.4	3
112	Augmenting geovisual analytics of social media data with heterogeneous information network mining—Cognitive plausibility assessment. <i>PLoS ONE</i> , 2018, 13, e0206906.	1.1	3
113	Grand challenge award: Data integration visualization and collaboration in the VAST 2008 Challenge. , 2008, , .		2
114	A workflow learning model to improve geovisual analytics utility. Proceedings of the ... International Cartographic conference = Actes de la ... Conf�rence Cartographique Internationale., 2009, , .	0.0	2
115	A SPATIAL AND TOPICAL ASSESSMENT OF DIGITAL GEOGRAPHIC DATABASE ACTIVITIES IN THE U.S.—. <i>Professional Geographer</i> , 1986, 38, 397-405.	1.0	1
116	Guest Editors' Introduction: Special Section on the IEEE Conference on Visual Analytics Science and Technology (VAST). <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012, 18, 660-661.	2.9	1
117	Advancing the theory and practice of system evaluation: a case study in geovisual analytics of social media. <i>International Journal of Cartography</i> , 2020, 6, 202-221.	0.2	1
118	Developing Lightweight, Data-Driven Exploratory Geo-Visualization Tools for the Web. , 2002, , 487-500.		1
119	Differentiating geographic movement described in text documents. <i>Transactions in GIS</i> , 0, , .	1.0	1
120	The Cartography and Spatial Representation Traditions at Penn State. <i>Cartography and Geographic Information Science</i> , 1991, 18, 192-197.	1.1	0
121	Visual Inquiry Toolkit - An Integrated Approach for Exploring and Interpreting Space-Time, Multivariate Patterns. , 2006, 2006, .		0