

# Chris Baber

## List of Publications by Year in descending order

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165  
papers

3,566  
citations

147801

31  
h-index

175258

52  
g-index

186  
all docs

186  
docs citations

186  
times ranked

2303  
citing authors

#	ARTICLE	IF	CITATIONS
1	Distributed situation awareness in dynamic systems: theoretical development and application of an ergonomics methodology. <i>Ergonomics</i> , 2006, 49, 1288-1311.	2.1	370
2	What really is going on? Review of situation awareness models for individuals and teams. <i>Theoretical Issues in Ergonomics Science</i> , 2008, 9, 297-323.	1.8	271
3	Command and control in emergency services operations: a social network analysis. <i>Ergonomics</i> , 2006, 49, 1204-1225.	2.1	130
4	A Tool to Assess the Comfort of Wearable Computers. <i>Human Factors</i> , 2005, 47, 77-91.	3.5	111
5	Event analysis of systemic teamwork (EAST): a novel integration of ergonomics methods to analyse C4i activity. <i>Ergonomics</i> , 2006, 49, 1345-1369.	2.1	101
6	Human error identification techniques applied to public technology: predictions compared with observed use. <i>Applied Ergonomics</i> , 1996, 27, 119-131.	3.1	98
7	Representing situation awareness in collaborative systems: A case study in the energy distribution domain. <i>Ergonomics</i> , 2008, 51, 367-384.	2.1	82
8	Multi-agency operations: Cooperation during flooding. <i>Applied Ergonomics</i> , 2012, 43, 38-47.	3.1	78
9	Task analysis for error identification: a methodology for designing error-tolerant consumer products. <i>Ergonomics</i> , 1994, 37, 1923-1941.	2.1	72
10	From ethnography to the EAST method: A tractable approach for representing distributed cognition in Air Traffic Control. <i>Ergonomics</i> , 2010, 53, 184-197.	2.1	67
11	Using social network analysis and agent-based modelling to explore information flow using common operational pictures for maritime search and rescue operations. <i>Ergonomics</i> , 2013, 56, 889-905.	2.1	61
12	Error by design: methods for predicting device usability. <i>Design Studies</i> , 2002, 23, 363-384.	3.1	60
13	Towards a definition and working model of stress and its effects on speech. <i>Speech Communication</i> , 1996, 20, 3-12.	2.8	54
14	The comfort assessment of wearable computers. , 0, , .		54
15	Ergonomics of wearable computers. <i>Mobile Networks and Applications</i> , 1999, 4, 15-21.	3.3	52
16	Uses of accelerometer data collected from a wearable system. <i>Personal and Ubiquitous Computing</i> , 2007, 11, 117-132.	2.8	48
17	Distributed situation awareness in an Airborne Warning and Control System: application of novel ergonomics methodology. <i>Cognition, Technology and Work</i> , 2008, 10, 221-229.	3.0	48
18	Effect of Head-Mounted Displays on Posture. <i>Human Factors</i> , 2007, 49, 797-807.	3.5	45

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19	Workload and the use of automatic speech recognition: The effects of time and resource demands. <i>Speech Communication</i> , 1996, 20, 37-53.	2.8	43
20	An evaluation of multimodal interactions with technology while learning science concepts. <i>British Journal of Educational Technology</i> , 2011, 42, 266-290.	6.3	43
21	Validating task analysis for error identification: reliability and validity of a human error prediction technique. <i>Ergonomics</i> , 2005, 48, 1097-1113.	2.1	41
22	The design of the SensVest. <i>Personal and Ubiquitous Computing</i> , 2005, 9, 6-19.	2.8	40
23	Using critical path analysis to model multimodal human-computer interaction. <i>International Journal of Human Computer Studies</i> , 2001, 54, 613-636.	5.6	39
24	Contrasting paradigms for the development of wearable computers. <i>IBM Systems Journal</i> , 1999, 38, 551-565.	3.0	38
25	A systems approach to human error identification. <i>Safety Science</i> , 1996, 22, 215-228.	4.9	37
26	Assessing the Wearability of Wearable Computers. <i>Proceedings International Symposium on Wearable Computers</i> , 2006, , .	0.0	37
27	Crime scene investigation as distributed cognition. <i>Pragmatics and Cognition</i> , 2006, 14, 357-385.	0.4	37
28	Virtual Reality: A Tool for Assembly?. <i>Presence: Teleoperators and Virtual Environments</i> , 2000, 9, 486-496.	0.6	35
29	Wearable Computers: A Human Factors Review. <i>International Journal of Human-Computer Interaction</i> , 2001, 13, 123-145.	4.8	35
30	Cognitive aspects of tool use. <i>Applied Ergonomics</i> , 2006, 37, 3-15.	3.1	35
31	Modelling error recovery and repair in automatic speech recognition. <i>International Journal of Man-Machine Studies</i> , 1993, 39, 495-515.	0.7	34
32	Speech technology for automatic teller machines: an investigation of user attitude and performance. <i>Ergonomics</i> , 1998, 41, 962-981.	2.1	34
33	Modelling of human alarm handling response times: a case study of the Ladbroke Grove rail accident in the UK. <i>Ergonomics</i> , 2008, 51, 423-440.	2.1	34
34	The risks associated with Artificial General Intelligence: A systematic review. <i>Journal of Experimental and Theoretical Artificial Intelligence</i> , 2023, 35, 649-663.	2.8	34
35	Automatic Speech Recognition in Adverse Environments. <i>Human Factors</i> , 1996, 38, 142-155.	3.5	33
36	The application of SHERPA (Systematic Human Error Reduction and Prediction Approach) in the development of compensatory cognitive rehabilitation strategies for stroke patients with left and right brain damage. <i>Ergonomics</i> , 2015, 58, 75-95.	2.1	30

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37	Task analysis for error identification: Theory, method and validation. <i>Theoretical Issues in Ergonomics Science</i> , 2002, 3, 212-227.	1.8	29
38	Using an integrated methods approach to analyse the emergent properties of military command and control. <i>Applied Ergonomics</i> , 2009, 40, 636-647.	3.1	27
39	Expertise in Crime Scene Examination. <i>Human Factors</i> , 2012, 54, 413-424.	3.5	27
40	Tool use as distributed cognition: how tools help, hinder and define manual skill. <i>Frontiers in Psychology</i> , 2014, 5, 116.	2.1	27
41	Designing habitable dialogues for speech-based interaction with computers. <i>International Journal of Human Computer Studies</i> , 2001, 54, 637-662.	5.6	25
42	Integrated digital communities: combining web-based interaction with text messaging to develop a system for encouraging group communication and competition. <i>Interacting With Computers</i> , 2004, 16, 93-113.	1.5	25
43	Scalable Proactive Event-Driven Decision Making. <i>IEEE Technology and Society Magazine</i> , 2014, 33, 35-41.	0.8	25
44	A Cognitive Model of How People Make Decisions Through Interaction with Visual Displays. , 2017, , .		25
45	What the Jeweller's Hand Tells the Jeweller's Brain: Tool Use, Creativity and Embodied Cognition. <i>Philosophy and Technology</i> , 2019, 32, 283-302.	4.3	24
46	An experimental comparison of test and symbols for in-car reconfigurable displays. <i>Applied Ergonomics</i> , 1992, 23, 255-262.	3.1	23
47	User evaluation of augmented reality systems. , 0, , .		23
48	Alarm-initiated activities: an analysis of alarm handling by operators using text-based alarm systems in supervisory control systems. <i>Ergonomics</i> , 1995, 38, 2414-2431.	2.1	22
49	The ergonomics of command and control. <i>Ergonomics</i> , 2006, 49, 1131-1138.	2.1	21
50	WESTT (workload, error, situational awareness, time and teamwork): an analytical prototyping system for command and control. <i>Cognition, Technology and Work</i> , 2008, 10, 199-207.	3.0	20
51	Combining network analysis with Cognitive Work Analysis: insights into social organisational and cooperation analysis. <i>Ergonomics</i> , 2015, 58, 434-449.	2.1	20
52	Defining and evaluating context for wearable computing. <i>International Journal of Human Computer Studies</i> , 2004, 60, 798-819.	5.6	19
53	Measuring team skills in crime scene investigation: exploring ad hoc teams. <i>Ergonomics</i> , 2008, 51, 1463-1488.	2.1	19
54	Assessing the physical loading of wearable computers. <i>Applied Ergonomics</i> , 2007, 38, 237-247.	3.1	18

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55	A Human Factors Study of Technology Acceptance of a Prototype Mobile Augmented Reality System for Science Education. <i>Advanced Science Letters</i> , 2011, 4, 3342-3352.	0.2	18
56	Mobile technology for crime scene examination. <i>International Journal of Human Computer Studies</i> , 2009, 67, 464-474.	5.6	17
57	A Prototype for Credit Card Fraud Management. , 2017, , .		17
58	The Impact of Cervical Musculoskeletal Disorders on UK Consultant Plastic Surgeons. <i>Annals of Plastic Surgery</i> , 2017, 78, 602-610.	0.9	17
59	Objective Metrics for the Evaluation of Simple Surgical Skills in Real and Virtual Domains. <i>Presence: Teleoperators and Virtual Environments</i> , 2003, 12, 207-221.	0.6	16
60	The effect of four user interface concepts on visual scan pattern similarity and information foraging in a complex decision making task. <i>Applied Ergonomics</i> , 2018, 70, 6-17.	3.1	16
61	Neck muscle activity and perceived pain and discomfort due to variations of head load and posture. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, 123-31.	0.5	16
62	Subjective evaluation of usability. <i>Ergonomics</i> , 2002, 45, 1021-1025.	2.1	15
63	Distributed cognition at the crime scene. <i>AI and Society</i> , 2010, 25, 423-432.	4.6	15
64	Factors affecting users' choice of words in speech-based interaction with public technology. <i>International Journal of Speech Technology</i> , 1997, 2, 45-59.	2.2	14
65	On the cost-effectiveness of ergonomics. <i>Applied Ergonomics</i> , 2003, 34, 407-411.	3.1	14
66	End-User Perception Towards Pervasive Cardiac Healthcare Services: Benefits, Acceptance, Adoption, Risks, Security, Privacy and Trust. , 2011, , .		14
67	Evaluating contextual information for wearable computing. , 0, , .		13
68	Creating and using interactive narratives. , 2012, , .		13
69	A Systematic Approach for Developing Decision Aids: From Cognitive Work Analysis to Prototype Design and Development. <i>Systems Engineering</i> , 2016, 19, 79-100.	2.7	13
70	Embedded human computer interaction. <i>Applied Ergonomics</i> , 2002, 33, 273-287.	3.1	12
71	Multimodal control of sensors on multiple simulated unmanned vehicles. <i>Ergonomics</i> , 2011, 54, 792-805.	2.1	12
72	Intelligent Assistive System Using Real-Time Action Recognition for Stroke Survivors. , 2014, , .		12

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73	Visualizing interactive narratives. , 2014, , .		12
74	Ecological Interface Design, the Proximity Compatibility Principle, and Automation Reliability in Road Traffic Management. IEEE Transactions on Human-Machine Systems, 2019, 49, 241-249.	3.5	12
75	Feedback requirements for automatic speech recognition in the process control room. International Journal of Man-Machine Studies, 1992, 37, 703-719.	0.7	11
76	Modelling the effects of constraint upon speech-based humanâ€™computer interaction. International Journal of Human Computer Studies, 1999, 50, 85-107.	5.6	11
77	Modelling elderly cardiac patients decision making using Cognitive Work Analysis: Identifying requirements for patient decision aids. International Journal of Medical Informatics, 2015, 84, 430-443.	3.3	11
78	Evaluating the Effect of Uncertainty Visualisation in Open Learner Models on Studentsâ€™™ Metacognitive Skills. Lecture Notes in Computer Science, 2017, , 15-27.	1.3	11
79	Identification, classification and management of errors in automated component assembly tasks. International Journal of Production Research, 1993, 31, 1853-1863.	7.5	10
80	Comparing speech versus text displays for alarm handling. Ergonomics, 1997, 40, 1240-1254.	2.1	10
81	Collaborative sense-making during simulated Intelligence Analysis Exercises. International Journal of Human Computer Studies, 2016, 86, 94-108.	5.6	10
82	Social Networks and Mobile Games: The Use of Bluetooth for a Multiplayer Card Game. Lecture Notes in Computer Science, 2004, , 98-107.	1.3	10
83	Can speech be used for alarm displays in â€™process controlâ€™™ type tasks?. Behaviour and Information Technology, 1992, 11, 216-226.	4.0	9
84	Usability and EC Directive. Displays, 1992, 13, 151-160.	3.7	9
85	Designing for consumers: editorial. Applied Ergonomics, 1998, 29, 1-3.	3.1	9
86	From public technology to ubiquitous computing: implications for ergonomics Editorial. Ergonomics, 1998, 41, 921-926.	2.1	9
87	Development of a generic activities model of command and control. Cognition, Technology and Work, 2008, 10, 209-220.	3.0	9
88	A comparison of shared and distributed situation awareness in teams through the use of agent-based modelling. Theoretical Issues in Ergonomics Science, 2016, 17, 8-41.	1.8	9
89	Application of Human Error Identification (HEI) Techniques to Cognitive Rehabilitation in Stroke Patients with Limb Apraxia. Lecture Notes in Computer Science, 2013, , 463-471.	1.3	9
90	Making ergonomics accountable: Reliability, validity and utility in ergonomics methods. Applied Ergonomics, 2022, 98, 103583.	3.1	9

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91	Elderly Cardiac Patients' Medication Management: Patient Day-to-Day Needs and Review of Medication Management System. , 2013, , .		8
92	Workflows and individual differences during visually guided routine tasks in a road traffic management control room. Applied Ergonomics, 2017, 61, 79-89.	3.1	8
93	Preliminary Investigations into the Use of Wearable Computers. , 1998, , 313-325.		8
94	Evaluation in human-computer interaction. , 2005, , 357-387.		8
95	A mobile health device to help people with severe allergies. , 2008, , .		7
96	Objective classification of performance in the use of a piercing saw in jewellery making. Applied Ergonomics, 2015, 51, 211-221.	3.1	7
97	Creating Affording Situations: Coaching through Animate Objects. Sensors, 2017, 17, 2308.	3.8	7
98	Automation Reliability and Decision Strategy: A Sequential Decision Making Model for Automation Interaction. Proceedings of the Human Factors and Ergonomics Society, 2018, 62, 144-148.	0.3	7
99	Instructions and demonstration as media for training new users of Automatic Speech Recognition Devices. Behaviour and Information Technology, 1990, 9, 371-379.	4.0	6
100	Automatic Speech Recognition, Noise and Workload. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 762-765.	0.3	6
101	Wearable Technology for Crime Scene Investigation. , 0, , .		6
102	Supporting Naturalistic Decision Making Through Location-Based Photography: A Study of Simulated Military Reconnaissance. International Journal of Human-Computer Interaction, 2010, 26, 147-172.	4.8	6
103	Intelligent Adaptive Systems: an interaction-centred design perspective. Ergonomics, 2017, 60, 1458-1459.	2.1	6
104	Designing Smart Objects to Support Affording Situations: Exploiting Affordance Through an Understanding of Forms of Engagement. Frontiers in Psychology, 2018, 9, 292.	2.1	6
105	Editorial: The cybernetic return in Human Factors and Ergonomics. Applied Ergonomics, 2019, 79, 86-90.	3.1	6
106	The effect of known decision support reliability on outcome quality and visual information foraging in joint decision making. Applied Ergonomics, 2020, 86, 103102.	3.1	6
107	A resources model for distributed sensemaking. Cognition, Technology and Work, 2018, 20, 651-664.	3.0	5
108	Patient-centred cardio vascular disease management - user perceptions. Journal of Assistive Technologies, 2012, 6, 105-122.	0.8	4

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109	Thinking Through Tools: What Can Tool-Use Tell Us About Distributed Cognition?. Studies in Logic, Grammar and Rhetoric, 2015, 41, 25-40.	0.1	4
110	Rule and theme discovery in human interactions with an 'internet of things'. , 2015, , .		4
111	Predicting upper limb discomfort for plastic surgeons wearing loupes based on multi-objective optimization. Cogent Engineering, 2017, 4, 1398702.	2.2	4
112	The Dynamics of Distributed Situation Awareness. Proceedings of the Human Factors and Ergonomics Society, 2017, 61, 277-281.	0.3	4
113	Drilling Into Dashboards: Responding to Computer Recommendation in Fraud Analysis. IEEE Transactions on Human-Machine Systems, 2019, 49, 633-641.	3.5	4
114	Formalizing Distributed Situation Awareness in Multi-Agent Networks. IEEE Transactions on Human-Machine Systems, 2022, 52, 1166-1175.	3.5	4
115	Design of a Minimal Interface for two-way strategic information flow for urban operations. , 0, , .		3
116	MsSAM: Methods to Support Shared Analysis for Mobile Investigators. A Task Analysis to Support the Integration of Wearable Computer Technology into Crime Scene Investigation. Measurement and Control, 2005, 38, 83-87.	1.8	3
117	Analyzing the Role of Communications Technology in C4i Scenarios: A Distributed Cognition Approach. Journal of Intelligent Systems, 2006, 15, .	1.6	3
118	Using 1/f Scaling to Study Variability and Dexterity in Simple Tool using Tasks. Proceedings of the Human Factors and Ergonomics Society, 2015, 59, 431-435.	0.3	3
119	Spontaneous bimanual independence during parallel tapping and sawing. PLoS ONE, 2017, 12, e0178188.	2.5	3
120	Designing visual analytics for collaborative activity. , 2014, , 327-334.		3
121	Movement consistency during repetitive tool use action. PLoS ONE, 2017, 12, e0173281.	2.5	3
122	Tool Use as Gesture: new challenges for maintenanceand rehabilitation. , 0, , .		3
123	Towards the definition of a modelling framework for meaningful Human-IoT Interactions. , 0, , .		3
124	Comparison of GUIs and CUIs: appropriate ranges of actions and ease of use. Displays, 1993, 14, 207-215.	3.7	2
125	Multi-Platform Crime Scene Investigation Field Tool. , 2007, , .		2
126	Joint Human-Automation Decision Making in Road Traffic Management. Proceedings of the Human Factors and Ergonomics Society, 2017, 61, 385-389.	0.3	2



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127	Thinking with Hands, Acting with Minds: Embodied Cognition and Creative Practice. <i>Advances in Intelligent Systems and Computing</i> , 2019, , 225-234.	0.6	2
128	Purposeful tool use in early lithic technologies. <i>Adaptive Behavior</i> , 2021, 29, 169-180.	1.9	2
129	Distributed Cognition at the Crime Scene. , 2013, , 131-146.		2
130	An approach to designing interactive decision aid for cardiac patients. , 2011, , .		2
131	Supporting Crime Scene Investigation. , 2007, , 103-116.		2
132	Virtual risks: Rich domain risk and technology transfer failure as design criteria in the Sheffield Knee Arthroscopy Trainer (SKATS). <i>Virtual Reality</i> , 1999, 4, 192-202.	6.1	1
133	Can support systems adversely affect cell performance?. <i>International Journal of Production Economics</i> , 2000, 65, 43-54.	8.9	1
134	Ubiquitous digital imaging systems. , 2001, 4306, 425.		1
135	Using gestures to learn about graphs: the contribution of multimodal technology. , 0, , .		1
136	Macrocognition in Day-To-Day Police Incident Response. <i>Frontiers in Psychology</i> , 2016, 7, 293.	2.1	1
137	Towards the Quantification of Human-Robot Imitation Using Wearable Inertial Sensors. , 2017, , .		1
138	Coaching through smart objects. , 2017, , .		1
139	The Cybernetic Return in Human Factors/Ergonomics (HFE). <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2019, 63, 894-898.	0.3	1
140	Visualising alignment to support studentsâ€™ judgment of confidence in open learner models. <i>User Modeling and User-Adapted Interaction</i> , 2020, 30, 159-194.	3.8	1
141	The look of writing in reading. Graphetic empathy in making and perceiving graphic traces. <i>Language Sciences</i> , 2021, 84, 101363.	1.0	1
142	Wearable Information Appliances for the Emergency Services: HotHelmet. <i>Lecture Notes in Computer Science</i> , 1999, , 314-316.	1.3	1
143	Distributed Cognition at the Crime Scene. , 2017, , 43-59.		1
144	Human Factors of Multi-modal Ubiquitous Computing. <i>Lecture Notes in Computer Science</i> , 1999, , 346-348.	1.3	1

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145	Student Preferences for Visualising Uncertainty in Open Learner Models. Lecture Notes in Computer Science, 2017, , 445-449.	1.3	1
146	Human-agents Interactions in Multi-Agent Systems: A Case Study of Human-UAVs Team for Forest Fire Lookouts. , 2020, , .		1
147	Conflicts Resolution and Situation Awareness in Heterogeneous Multi-agent Missions using Publish-subscribe Technique and Inferential Reasoning. , 2020, , .		1
148	Methods and tools in user centred design for information technology. Applied Ergonomics, 1992, 23, 359-360.	3.1	0
149	A Novel Integration of Human Factors Methods to Analyse C4i Activity; A Chemical Incident Case Study Carried Out with the UK Fire Service. Proceedings of the Human Factors and Ergonomics Society, 2004, 48, 518-522.	0.3	0
150	Missing Key Information. Proceedings of the Human Factors and Ergonomics Society, 2015, 59, 200-204.	0.3	0
151	After phrenology: neural reuse and the interactive brain. Ergonomics, 2017, 60, 1173-1174.	2.1	0
152	Demonstration of a Prototype for Credit Card Fraud Management. , 2017, , .		0
153	Towards the Analysis of Movement Variability in Human-Humanoid Imitation Activities. , 2017, , .		0
154	The Use of Narrative in the Prototyping of Serious Games for Criminal Investigation. , 2009, , .		0
155	Human Error, Engineering Psychology and System Safety. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 1255-1260.	0.4	0
156	Understanding movement variability of simplistic gestures using an inertial sensor. , 2016, , .		0
157	Tackling the Zombie Apocalypse: sensemaking in simulated disaster management. , 0, , .		0
158	Predicting transaction time for dual-tasks using critical path. , 2017, , 223-230.		0
159	Human Factors Methods Integration: A Case Study in the Railway Industry. , 2017, , 521-542.		0
160	EAST in Energy Distribution Operations. , 2018, , 65-81.		0
161	EAST in Railway Maintenance. , 2018, , 109-133.		0
162	EAST in Air Traffic Control. , 2018, , 19-38.		0

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163	EAST in Military Command and Control. , 2018, , 39-63.		0
164	Using the Toulmin Model of Argumentation to Explore the Differences in Human and Automated Hiring Decisions. , 2020, , .		0
165	Handling Uncertainties in Distributed Constraint Optimization Problems using Bayesian Inferential Reasoning. , 2020, , .		0