Neil T Heffernan

List of Publications by Year
in descending order

101	2,544	304743 22	265206 42
papers	citations	h-index	g-index

114	114	114	1152
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identifying Struggling Students by Comparing Online Tutor Clickstreams. Lecture Notes in Computer Science, 2021, , 290-295.	1.3	0
2	Classifying Math Knowledge Components via Task-Adaptive Pre-Trained BERT. Lecture Notes in Computer Science, 2021, , 408-419.	1.3	3
3	Using Past Data to Warm Start Active Machine Learning: Does Context Matter?. , 2021, , .		7
4	Examining Student Effort on Help through Response Time Decomposition. , 2021, , .		7
5	Toward Personalizing Students' Education with Crowdsourced Tutoring. , 2021, , .		9
6	The automated grading of student open responses in mathematics. , 2020, , .		16
7	Effectiveness of Crowd-Sourcing On-Demand Assistance from Teachers in Online Learning Platforms. , 2020, , .		16
8	Context-Aware Attentive Knowledge Tracing. , 2020, , .		146
9	Effect of Immediate Feedback on Math Achievement at the High School Level. Lecture Notes in Computer Science, 2020, , 263-267.	1.3	3
10	Refusing to Try. , 2019, , .		3
11	Backtalk: Donâ€™t eliminate homework. Make it more effective. Phi Delta Kappan, 2019, 100, 80-80.	0.6	2
12	Save Your Strokes: Chinese Handwriting Practice Makes for Ineffective Use of Instructional Time in Second Language Classrooms. AERA Open, 2019, 5, 233285841989032.	2.1	6
13	Generalizability of Methods for Imputing Mathematical Skills Needed to Solve Problems from Texts. Lecture Notes in Computer Science, 2019, , 396-405.	1.3	4
14	Understanding the Complexities of Chinese Word Acquisition within an Online Learning Platform. , 2019, , .		0
15	ElectronixTutor: an intelligent tutoring system with multiple learning resources for electronics. International Journal of STEM Education, 2018, 5, 15.	5.0	47
16	Contextual factors affecting hint utility. International Journal of STEM Education, 2018, 5, 13.	5.0	12
17	Using Design Patterns for Math Preservice Teacher Education. , 2018, , .		2
18	Guidance counselor reports of the ASSISTments college prediction model (ACPM). , 2017, , .		5

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19	Using correlational topic modeling for automated topic identification in intelligent tutoring systems. , 2017, , .		2
20	An Integrated Look at Middle School Engagement and Learning in Digital Environments as Precursors to College Attendance. Technology, Knowledge and Learning, 2017, 22, 243-270.	4.9	16
21	Learning Curve Analysis Using Intensive Longitudinal and Cluster-Correlated Data. Procedia Computer Science, 2017, 114, 250-257.	2.0	0
22	Sequencing content in an adaptive testing system. , 2017, , .		3
23	Using natural language processing tools to develop complex models of student engagement. , 2017, , .		3
24	Feedback Design Patterns for Math Online Learning Systems. , 2017, , .		2
25	Improving Sensor-Free Affect Detection Using Deep Learning. Lecture Notes in Computer Science, 2017, , 40-51.	1.3	47
26	Incorporating Rich Features into Deep Knowledge Tracing. , 2017, , .		64
27	A Memory-Augmented Neural Model for Automated Grading. , 2017, , .		30
28	Observing Personalizations in Learning. , 2017, , .		2
29	Tomorrow's EdTech Today: Establishing a Learning Platform as a Collaborative Research Tool for Sound Science. Teachers College Record, 2017, 119, 1-36.	0.9	8
30	The Future of Adaptive Learning: Does the Crowd Hold the Key?. International Journal of Artificial Intelligence in Education, 2016, 26, 615-644.	5.5	30
31	Optimizing the Amount of Practice in an On-Line Platform. , 2016, , .		2
32	ASSISTments Dataset from Multiple Randomized Controlled Experiments. , 2016, , .		11
33	Predicting student performance on post-requisite skills using prerequisite skill data. , 2016, , .		14
34	The assessment of learning infrastructure (ALI). , 2016, , .		13
35	Enhancing the efficiency and reliability of group differentiation through partial credit. , 2016, , .		1
36	AXIS. , 2016, , .		96

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37	The Opportunity Count Model. , 2016, , .		6
38	Studying Learning at Scale with the ASSISTments TestBed. , 2016, , .		4
39	Exploring college major choice and middle school student behavior, affect and learning. , 2015, , .		4
40	Towards better affect detectors. , 2015, , .		19
41	An analysis of the impact of action order on future performance. , 2015, , .		7
42	Improving Student Modeling Through Partial Credit and Problem Difficulty. , 2015, , .		12
43	Using and Designing Platforms for In Vivo Educational Experiments. , 2015, , .		2
44	Learning, Moment-by-Moment and Over the Long Term. Lecture Notes in Computer Science, 2015, , 654-657.	1.3	3
45	The Prediction of Student First Response Using Prerequisite Skills. , 2015, , .		9
46	Connecting Collaborative & Crowd Work with Online Education. , 2015, , .		9
47	The Role of Student Choice Within Adaptive Tutoring. Lecture Notes in Computer Science, 2015, , 752-755.	1.3	4
48	Blocking Vs. Interleaving: Examining Single-Session Effects Within Middle School Math Homework. Lecture Notes in Computer Science, 2015, , 338-347.	1.3	13
49	Improving Learning Maps Using an Adaptive Testing System: PLACEments. Lecture Notes in Computer Science, 2015, , 517-520.	1.3	1
50	Developing Self-regulated Learners Through an Intelligent Tutoring System. Lecture Notes in Computer Science, 2015, , 840-843.	1.3	4
51	The ASSISTments Ecosystem: Building a Platform that Brings Scientists and Teachers Together for Minimally Invasive Research on Human Learning and Teaching. International Journal of Artificial Intelligence in Education, 2014, 24, 470-497.	5.5	263
52	Population validity for educational data mining models: A case study in affect detection. British Journal of Educational Technology, 2014, 45, 487-501.	6.3	88
53	Reducing Student Hint Use by Creating Buggy Messages from Machine Learned Incorrect Processes. Lecture Notes in Computer Science, 2014, , 674-675.	1.3	5
54	Learning Bayesian Knowledge Tracing Parameters with a Knowledge Heuristic and Empirical Probabilities. Lecture Notes in Computer Science, 2014, , 150-155.	1.3	23

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55	The Effect of Automatic Reassessment and Relearning on Assessing Student Long-Term Knowledge in Mathematics. Lecture Notes in Computer Science, 2014, , 490-495.	1.3	3
56	Implementation of an Intelligent Tutoring System for Online Homework Support in an Efficacy Trial. Lecture Notes in Computer Science, 2014, , 561-566.	1.3	7
57	Personalizing Knowledge Tracing: Should We Individualize Slip, Guess, Prior or Learn Rate?. Lecture Notes in Computer Science, 2014, , 647-648.	1.3	3
58	Which Is More Responsible for Boredom in Intelligent Tutoring Systems: Students (Trait) or Problems (State)?. , 2013, , .		5
59	Estimating the Effect of Web-Based Homework. Lecture Notes in Computer Science, 2013, , 824-827.	1.3	19
60	Extending Knowledge Tracing to Allow Partial Credit: Using Continuous versus Binary Nodes. Lecture Notes in Computer Science, 2013, , 181-188.	1.3	26
61	Towards an Understanding of Affect and Knowledge from Student Interaction with an Intelligent Tutoring System. Lecture Notes in Computer Science, 2013, , 41-50.	1.3	27
62	A Comparison of Two Different Methods to Individualize Students and Skills. Lecture Notes in Computer Science, 2013, , 836-839.	1.3	1
63	The sum is greater than the parts. SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2012, 13, 37-44.	4.0	55
64	The Student Skill Model. Lecture Notes in Computer Science, 2012, , 399-404.	1.3	19
65	Clustered Knowledge Tracing. Lecture Notes in Computer Science, 2012, , 405-410.	1.3	17
66	Ensembling Predictions of Student Knowledge within Intelligent Tutoring Systems. Lecture Notes in Computer Science, 2011, , 13-24.	1.3	19
67	Clustering Students to Generate an Ensemble to Improve Standard Test Score Predictions. Lecture Notes in Computer Science, 2011, , 377-384.	1.3	32
68	KT-IDEM: Introducing Item Difficulty to the Knowledge Tracing Model. Lecture Notes in Computer Science, 2011, , 243-254.	1.3	96
69	Student Modeling in an Intelligent Tutoring System. , 2011, , 208-236.		4
70	Automatic Physical Database Tuning Middleware for Web-Based Applications. Lecture Notes in Computer Science, 2011, , 361-374.	1.3	0
71	Ethical issues in Computerâ€Assisted Language Learning: Perceptions of teachers and learners. British Journal of Educational Technology, 2010, 41, 796-813.	6.3	24
72	A Quasi-Experimental Evaluation of An On-Line Formative Assessment and Tutoring System. Journal of Educational Computing Research, 2010, 43, 489-510.	5.5	73

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73	The Fine-Grained Impact of Gaming (?) on Learning. Lecture Notes in Computer Science, 2010, , 194-203.	1.3	16
74	Hints: Is It Better to Give or Wait to Be Asked?. Lecture Notes in Computer Science, 2010, , 349-358.	1.3	16
75	Detecting the Moment of Learning. Lecture Notes in Computer Science, 2010, , 25-34.	1.3	15
76	Comparing Knowledge Tracing and Performance Factor Analysis by Using Multiple Model Fitting Procedures. Lecture Notes in Computer Science, 2010, , 35-44.	1.3	61
77	Modeling Individualization in a Bayesian Networks Implementation of Knowledge Tracing. Lecture Notes in Computer Science, 2010, , 255-266.	1.3	165
78	Using Data Mining Findings to Aid Searching for Better Cognitive Models. Lecture Notes in Computer Science, 2010, , 312-314.	1.3	1
79	Milyâ€™s World: A Coordinate Geometry Learning Environment with Game-Like Properties. Lecture Notes in Computer Science, 2010, , 399-401.	1.3	0
80	Learning What Works in ITS from Non-traditional Randomized Controlled Trial Data. Lecture Notes in Computer Science, 2010, , 41-50.	1.3	3
81	A Comparison of Traditional Homework to Computer-Supported Homework. Journal of Research on Technology in Education, 2009, 41, 331-359.	6.5	73
82	Using Mixed-Effects Modeling to Analyze Different Grain-Sized Skill Models in an Intelligent Tutoring System. IEEE Transactions on Learning Technologies, 2009, 2, 79-92.	3.2	16
83	Addressing the assessment challenge with an online system that tutors as it assesses. User Modeling and User-Adapted Interaction, 2009, 19, 243-266.	3.8	202
84	The ASSISTment Builder: Supporting the Life Cycle of Tutoring System Content Creation. IEEE Transactions on Learning Technologies, 2009, 2, 157-166.	3.2	35
85	Performance Driven Database Design for Scalable Web Applications. Lecture Notes in Computer Science, 2009, , 43-58.	1.3	1
86	Copyright and multimedia classroom material: a study from Japan. Computer Assisted Language Learning, 2008, 21, 167-180.	7.1	9
87	Towards designing a user-adaptive web-based e-learning system. , 2008, , .		8
88	Trying to Reduce Bottom-Out Hinting: Will Telling Student How Many Hints They Have Left Help?. Lecture Notes in Computer Science, 2008, , 774-778.	1.3	1
89	Comparing Classroom Problem-Solving with No Feedback to Web-Based Homework Assistance. Lecture Notes in Computer Science, 2008, , 426-437.	1.3	4
90	FM and Web Broadcasting Systems for Mobile Language Listening. , 2007, , .		2

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91	A Web-based Authoring Tool for Intelligent Tutors: Blending Assessment and Instructional Assistance. Studies in Computational Intelligence, 2007, , 23-49.	0.9	10
92	The Short Readings Project: A CALL reading activity utilizing vocabulary recycling. Computer Assisted Language Learning, 2006, 19, 63-77.	7.1	16
93	Addressing the testing challenge with a web-based e-assessment system that tutors as it assesses. , 2006, , .		24
94	Detection and Analysis of Off-Task Gaming Behavior in Intelligent Tutoring Systems. Lecture Notes in Computer Science, 2006, , 382-391.	1.3	68
95	Opening the Door to Non-programmers: Authoring Intelligent Tutor Behavior by Demonstration. Lecture Notes in Computer Science, 2004, , 162-174.	1.3	71
96	Why Are Algebra Word Problems Difficult? Using Tutorial Log Files and the Power Law of Learning to Select the Best Fitting Cognitive Model. Lecture Notes in Computer Science, 2004, , 240-250.	1.3	13
97	Web-Based Evaluations Showing Differential Learning for Tutorial Strategies Employed by the Ms. Lindquist Tutor. Lecture Notes in Computer Science, 2004, , 491-500.	1.3	13
98	The MOOClet Framework: Improving Online Education through Experimentation and Personalization of Modules. SSRN Electronic Journal, 0, , .	0.4	8
99	A Methodology for Discovering How to Adaptively Personalize to Users Using Experimental Comparisons. SSRN Electronic Journal, 0, , .	0.4	1
100	Using and Designing Platforms for In Vivo Educational Experiments. SSRN Electronic Journal, 0, , .	0.4	1
101	Using and Designing Platforms for in Vivo Educational Experiments. SSRN Electronic Journal, 0, , .	0.4	0