

Curriculum Vitae for Morten Goodwin



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Position: Associate Professor, University of Agder
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Date of birth: 23rd of November 1980

Education

- **2008 - 2011:** Ph.D. Degree at Aalborg University department for Computer Science. The thesis title is “**Towards Automated eGovernment Monitoring**”. The thesis was on developing algorithms and techniques for automatic measurement of web site quality.
- **2003 - 2005:** Master Degree at Agder University College , Faculty of Engineering and Science, Information and Communication Technology with the master thesis “**Incremental Web Crawling as a Competitive Game of Learning Automata**”.
Winner of best master thesis of the year. Award at Faculty of Engineering and Science, Agder University College

Research projects

- **2017-(present):** Active researcher Human Chatbot Interaction IKTPLUSS
- **2017-(present):** Active researcher TELMA, NFR
- **2016-(present):** Active researcher iTrack H2020 <http://www.itrack-project.eu>
- **2015-(present):** Active researcher in Global Orchestrated Disaster Defense (GO2D) <http://ciem.uia.no/project/global-orchestrated-disaster-defense-god2>
- **2015- (present):** Coordinator and active researcher for T-Flip (Testdrevet Ferdighetsl ring i Programmering) on techniques to improve automated teaching methods for large university classrooms. <http://tclt.uia.no>
- **2014 –2015:** Coordinator and active researcher in Test Centred Learning Tool working on automatic evaluation of student evaluation in programming. <http://tclt.uia.no>
- **2012 – 2014:** Active researcher in the **SmartRescue** project, funded by Aust Agder Kompetansefond. Morten is working with colony based path finding, mobile sensors, crowd based analysis and smart phone technologies.
- **2012:** Project “Universell utforming – samfunnsmessige konsekvenser ved innf ring av pliktige standarder for web” for the Norwegian Agency for Public Management and eGovernment
- **2008, 2011:** Invited Expert for the Bi-annual United Nations eGovernment Survey (UNPAN/UNDESA) working on assessment methodologies, automatic cross-country web measurements.
- **2008 – 2011:** Principal researcher in the NFR funded **eGovMon** project on automatic assessment of Norwegian public web sites dealing AI technologies for searching in large data and tests which are difficult automate. Morten had a leading role in the technical development.. This includes active cooperation with 21 Norwegian municipalities, the Agency for Public

Management and eGovernment (DIFI), the Norwegian Association of Local and Regional Authorities (KS), Research Institute for Technology and Disability (FTB).

- **2008 – 2010:** Active participant in the EU funded eGovMoNet-project working on cross country web measurement technologies .
- **2009:** Capgemini project on Benchmark Measurement of European eGovernment services. Morten provided automatic measurement of to what extent web sites are accessible for people with special needs.
- **2005 – 2008:** Researcher and system developer for the EU funded *European Internet Accessibility Observatory* (EIAO) at University of Agder. During this period, large parts of my work has been development of methodology and software for EIAO, including contribution to the Unified Web Evaluation Methodology (UWEM).

Relevant Work experience

- **2017-03 – (present):** Deputy director Centre for Artificial Intelligence Research – <http://cair.uia.no>
- **2014-08 – (present):** Coordinator - International Master's Programme in ICT
- **2012-07 - (present):** Associate Professor University of Agder. Research in Artificial Intelligence. Teaching of programming, artificial intelligence, as well as supervising projects on master and PhD level. Part of the ICT group focusing on data mining, machine learning and AI.
- **2014-06 - 2016-04:** Senior Researcher Teknova working on Data Mining for energy net.
- **2012-04 – -06:** Senoir lecturere Noroff University College
- **2011-08 – 2012-03:** Principal researcher at *Tingtun* AS doing research and software development.
- **2008 - 2011-08:** Involved in *Tingtun* AS as a scientific developer and a Ph.D. student. The work focus on automatic benchmarking of eGovernment Services with focus on accessibility and transparency. The work is on developing learning algorithms and web-mining techniques on eGovernment indicators which are difficult to measure automatically.
- **Summer 2009:** *United Nations* Public Administration Network, New York, working with the United Nations eGovernment survey.
- **2005 - 2008:** Researcher at *Agder University College* . Morten was been involved in most parts of the Observatory. Some of my key contributions have been related to the following; Development of the *basis implementation* and methodology for EIAO, *Crawler/Sampling, RDF repositories* where we where able to read /write RDF significantly faster than well known RDF tools such as 3Store and Redland), *Performance* improvements of the Observatory
- **1998 - 1999:** Part time maintainer of Fast MP3 Search for *Fast Search and Transfer ASA*.

Main Research Areas of Interests

- Artificial Intelligence, specially learning algorithms and meta-heuristics, large scale data mining, including web mining, optimisation, deep convolutional and recurrent neural networks, image classification, natural language processing.
- Learning technologies, automated teaching methods, AI in teaching

List of Selected Scientific Publications

2017

- Jan-Vidar Ølberg, Morten Goodwin, Automated Dental Identification with Lowest Cost Path-

Based Teeth and Jaw Separation *Scandinavian Journal of Forensic Science* 2017

- Mehdi Ben Lazreg, Morten Goodwin and Ole-Christoffer Granmo Vector Representation of Non-standard Spellings Using Dynamic Time Wrapping and a Denoising Autoencoder *IEEE CEC 2017*

2016

- Anis Yazidi, John Oommen, Morten Goodwin On Solving the Problem of Identifying Unreliable Sensors Without a Knowledge of the Ground Truth: The Case of Stochastic Environments *IEEE Transactions Cybernetics* 2016
- Morten Goodwin, Anis Yazidi A pattern recognition approach for peak prediction of electrical consumption *Integrated Computer-Aided Engineering, vol. 23, no. 2, pp. 101-113*
- Mehdi Ben Lazreg, Morten Goodwin and Ole-Christoffer Granmo Information Extraction from Crises Related Tweets Using Recurrent Neural Network *Artificial Intelligence Applications and Innovations* 2016
- Morten Goodwin, Anis Yazidi Ant Colony Optimisation Based Classification using Two Dimensional Polygons *ANTS* 2016
- Torry Tufteland, Guro Ødesneltvedt and Morten Goodwin Optimizing PolyACO Training with GPU-Based Parallelization *ANTS* 2016
- Morten Goodwin, Anis Yazidi and Tore Møller Distributed Learning Automata for Solving a Classification Task *IEEE World Congress on Computational Intelligence* 2016
- Mehdi Ben Lazreg and Morten Goodwin Deep Learning for Social Media Analysis in Crises Situations *The Swedish AI Society (SAIS)* 2016
- Bjørnar Hansen, Leonard Loland, Morten Goodwin and Ole-Christoffer Granmo Towards Evacuation Planning of Groups with Genetic Algorithms *The Swedish AI Society (SAIS)* 2016
- Per-Arne Andersen, Christian Kråkevik, Morten Goodwin and Anis Yazidi Adaptive Task Assignment in Online Learning Environments *WIMS* 2016
- Morten Goodwin, Tom Drange Teaching Programming to Large Student Groups through Test Driven Development *CSEDU* 2016

2015

Anis Yazidi, John Oommen, Morten Goodwin On Distinguishing between Reliable and Unreliable Sensors Without a Knowledge of the Ground Truth *2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT)* 2015

- Robin Tollisen, Jon Vegard Jansen, Morten Goodwin, Sondre Glimsdal AIs for Dominion Using Monte-Carlo Tree Search *Current Approaches in Applied Artificial Intelligence* 2015
- Thomas Andre Lian, Marilex Rea Llave, Morten Goodwin, Noureddine Bouhmala Towards Multilevel Ant Colony Optimisation for the Euclidean Symmetric Traveling Salesman Problem *Current Approaches in Applied Artificial Intelligence* 2015
- Morten Goodwin, Christian Auby, Vera Barstad, Educating Programming Students for the Industry. Book chapter in media in teaching and its added value 2015 Accepted (not yet published):

2014

- Morten Goodwin, Anis Yazidi, A Pattern Recognition Approach for Peak Prediction of Electrical Consumption, *Artificial Intelligence Applications and Innovations* IFIP Advances in Information and Communication Technology Volume 436, 2014, pp 265-275
- Lasse Karlsen and Morten Goodwin, Visualization and peak prediction of electricity consumption, *Norsk Informatikkonferanse* 2014
- Vera Barstad, Morten Goodwin and Terje Gjøsæter, Predicting SourceCode Quality with Static Analysis and Machine Learning *Norsk Informatikkonferanse* 2014
- Morten Goodwin, Christian Auby, Per Arne Andersen and Vera Barstad, Bringing Test-Driven

Software Development to University Classrooms, Norsk Informatikkonferanse 2014

- John Daniel Evensen, Morten Goodwin and Sindre Lindahl, File-type Detection Using Naïve Bayes and n-gram Analysis, Norsk Informasjonssikkerhetskonferanse.
 - Jaziar Radianti, Ole-Christoffer Granmo, Parvaneh Sarshar, Morten Goodwin, Julie Dugdale, Jose J. Gonzalez A spatio-temporal probabilistic model of hazard- and crowd dynamics for evacuation planning in disasters, Journal of Applied Intelligence (APIN) 2014
 - Morten Goodwin, Ole-Christoffer Granmo, Jaziar Radianti. Escape Planning in Realistic Fire Scenarios with Ant Colony Optimisation, Journal of Applied Intelligence (APIN) 2014
 - A Novel Strategy for Solving the Stochastic Point Location Problem Using a Hierarchical Searching Scheme. Journal of IEEE Transactions on Systems, Man, and Cybernetics.
- 2013**
- Morten Goodwin, Ole-Christoffer Granmo, Jaziar Radianti, Parvaneh Sarshar and Sondre Glimsdal. Ant Colony Optimisation for Planning Safe Escape Routes, IEA-AIE 2013
 - Ole-Christoffer Granmo, Jaziar Radianti, Morten Goodwin, Julie Dugdale, Parvaneh Sarshar, Sondre Glimsdal and Jose J. Gonzalez. A Spatio-Temporal Probabilistic Model of Hazard- and Crowd Dynamics in Disasters for Evacuation Planning, IEA-AIE 2013
 - Morten Goodwin. Towards Automatic Assessment of Government Web Sites. WIMS 2013
 - Vera Barstad, Vladimir Shulgin, Morten Goodwin and Terje Gjøsæter: Towards a Collaboration Code Review Plugin. NIK 2013
- 2012**
- Morten Goodwin, Iain Sutherland, Frode Roarson and Tom Drange. Assessing the accessibility of e- learning. NOKOBIT 2012
 - Annika Nietzio, Mandana Eibegger, Morten Goodwin, and Mikael Snaprud Following the WCAG 2.0 Techniques: Experiences from designing a WCAG 2.0 checking tool International Conference on Computers Helping People with special Needs 2012
 - Anis Yazidi, Ole-Christoffer Granmo, B. John Oommen, and Morten Goodwin A Hierarchical Learning Scheme for Solving the Stochastic Point Location Problem. The 25th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems 2012
- 2011**
- Annika Nietzio, Mandana Eibegger, Morten Goodwin, Mikael Snaprud: Towards a score function for WCAG 2.0 benchmarking. W3C Online Symposium on Website Accessibility Metrics 2011.
 - Morten Goodwin: Towards Automated eGovernment Monitoring. Ph.D. Thesis. Department of Computer Science, Aalborg University, Denmark, ISSN nr:1601-0590, 332 Pages (defended 2011-08-12),
 - Morten Goodwin, Deniz Susar, Annika Nietzio and Mikael Snaprud, Christian S. Jensen: Global Web Accessibility Analysis of National Government Portals and Ministry Web Sites. Journal of Information Technology and Politics 8(1): 41 - 67 (2011)
 - Morten Goodwin: A solution to the exact match on rare item searches. International Conference on Web Intelligence, Mining and Semantics 2011
- 2010**
- Morten Goodwin Olsen, Mikael Snaprud and Annika Nietzio: Automatic Checking of Alternative Texts on Web Pages. International Conference on Computers Helping People with Special Needs 2010: 425-432
 - Annika Nietzio, Morten Goodwin Olsen, Mandana Eibegger and Mikael Snaprud: Accessibility of eGovernment web sites: Towards a collaborative retrofitting approach, International Conference on Computers Helping People with Special Needs 2010: 468-475

2009

- Morten Goodwin Olsen, Annika Nietzio, Mikael Snaprud and Frank Fardal: Benchmarking and improving the quality of Norwegian municipality web sites. 5th International Workshop on Automated Specification and Verification of Web Systems 2009: 115-128
- Lasse Berntzen and Morten Goodwin Olsen: Benchmarking e-government —a comparative review of three international benchmarking studies. Third International Conference on Digital Society 2009: 77-82 – **Winner of best paper award.**
- Annika Nietzio, Morten Goodwin Olsen, Mikael Snaprud and Rudolph Brynn: eGovernment: New chance or new barrier people with disabilities? 8th International EGOV Conference 2009
- Carlos Casado, Loïc Martinez and Morten Goodwin Olsen: Is it possible to predict the manual web accessibility results using the automatic results? Human Computer Interaction International 2009: 645-653

2008

- Nils Ulltveit-Moe, Morten Goodwin Olsen, Anand B. Pillai, Christian Thomsen, Terje Gjøsæter, Mikael Snaprud: Architecture for large-scale automatic web accessibility evaluation based on the UWEM methodology. Norsk Informatikkonferanse 2008
- Christian Bühler, Helmut Heck, Annika Nietzio, Morten Goodwin Olsen, Mikael Snaprud: Monitoring Accessibility of Governmental Web Sites in Europe. International Conference on Computers Helping People with Special Needs 2008: 410-417

2007

- B. John Oommen, Ole-Christoffer Granmo, Svein Arild Myrer, Morten Goodwin Olsen: Learning Automata-based Solutions to the Nonlinear Fractional Knapsack Problem with Applications to Optimal Resource Allocation. IEEE Transactions on Systems, Man and Cybernetics, Part B 37(1): 166-175 (2007)
- Trabelsi Walid, Morten Goodwin Olsen: Distributing resource allocation based on simulated user interaction. Proceedings of Technology for Participation Conference 2007: 114-126.
- Anis Yazidi, Morten Goodwin Olsen: Increasing participation for mobile map applications. Proceedings of Technology for Participation Conference 2007: 107-113.
- Annika Nietzio, Nils Ulltveit-Moe, Terje Gjøsæter, Morten Goodwin Olsen, Mikael Snaprud: A Framework for Quality Assurance for Data from Large Scale Accessibility Evaluations. Human Computer Interaction International 2007

Note: Morten Goodwin changed his name from Morten Goodwin Olsen to Morten Goodwin in 2010