

## CV – Agnar Aamodt, May 2018

Born: 19.06.1950  
Working Address: Department of Computer Science, Faculty of Information Technology and Electrical Engineering, Norwegian University of Science and Technology (NTNU)  
Email: [agnar@ntnu.no](mailto:agnar@ntnu.no)

### Education

1975 MSc (siv.ing.) in Electrical Engineering, specialization in Biomedical Engineering, NTNU  
1991 PhD (dr.ing.) in Computer Science, specialization in Artificial Intelligence, NTNU

### Employments

1975 – 1977 Research Librarian at NTNU University Library, Trondheim  
1977 – 1979 Educational scholarship at Norwegian Document Data, Oslo  
1979 – 1991 Research Scientist at SINTEF Information and Communication Technology, Trondheim  
1991 – 1992 Research Scientist at Vrije Universiteit Brussels, AI Laboratory, Brussels  
1992 – 1994 Professorial scholarship at NTNU, Department of Computer and Information Science  
1994 – 2007 Professor at NTNU, Department of Computer and Information Science  
- Head of Intelligence Systems Group (1999 – 2013)  
2007 – 2008 Senior Developer at Verdande Technology AS, Trondheim  
2008 – pres. Professor at NTNU, Department of Computer Science  
- Deputy Head of Department for Research (2013 – 2016)

### Other scientific merits

2015- Editorial Board, International Journal of Collaborative Intelligence  
2011- Editorial Board, International Journal of Intelligence Science  
1998- Editorial Board, International Journal of Computational Intelligence and Applications  
1995 Programme Co-Chair of 1.st International Conference on Case-Based Reasoning  
2003 Conference Chair of 5<sup>th</sup> International Conference on Case-Based Reasoning  
1994- Reviewer in a number of EU projects, evaluator of a number of EU project proposals  
1985- Program Committee member of more than 80 conferences and workshops, incl. IJCAI, ECAI

### Main topics of research

- Artificial Intelligence methods for data analysis, decision support, and machine learning
- Capture and reuse of personal and group-level experiences through case-based reasoning
- Knowledge analysis and modeling, ontology development and utilization

### Experience as leader/head of projects

Principal investigator and leading role of several national and international research projects.

### Evaluation committees

- Head of the Norwegian National Committee for Appointment to Professorship on Personal Merits in Computer Science (2002-2010).
- Member of 10 evaluation committees for national and foreign professorship positions
- Member of 19 PhD and Habilitation evaluation committees at universities in 7 countries

### International collaboration

- Longer visits at universities in Austin, Brussels, Barcelona, Auckland, Lyon, Aberdeen, Alessandria
- Professional network with a range of universities in Europe, US, Brazil, India, China, New Zealand

### Supervision of students

- Supervised 7 PhD students as main supervisor - currently main supervisor for 3 PhD candidates
- Supervised 57 MSc students as main supervisor.

### Publication figures

- Papers in international journals and conferences with peer-review: 85
- Google Scholar citations 10.800, h-index 29.

### **Selected publications in international journals and conferences with peer review - last 5 years**

1. Tor Gunnar Houeland, Agnar Aamodt: A Learning System based on Lazy Metareasoning. *Progress in Artificial Intelligence*, 2017, ISSN(online) 2192-6360 (print) 2192-6352. Springer, 2017, 18pgs.
2. Bjørn Magnus Mathisen, Agnar Aamodt, Helge Langseth: Data driven case base construction for prediction of success of marine operations . In Ruiz-Granados and Kofod-Petersen (Editors), Twenty-Fifth International Conference on Case-Based Reasoning (ICCBR 2017), Workshop Proceedings, Ceur-ws.org, (link at <http://www.iccbr.org/iccbr17/workshops.html>), pp. 102-111.
3. Tale Prestmo, Kerstin Bach, Agnar Aamodt, Paul Jarle Mork: Evolutionary Inspired Adaptation of Exercise Plans for Increasing Solution Variety. ICCBR 2017, Trondheim. *Lecture Notes in Computer Science*, LNCS, Volume 10339, pp. 272-286.
4. Kari Fosshaug Skjold, Marthe Sofie Oynes, Kerstin Bach, Agnar Aamodt: IntelliMeal - Enhancing Creativity by Reusing Domain Knowledge in the Adaptation Process. Workshop Computer Cooking Contest, ICCBR 2017, 2017-06-26.
5. Paal Skalle, Agnar Aamodt, Isak Swahn: Detection of failures and interpretation of causes during drilling operations. ADIPEC, Abu Dhabi, Nov. 2016. SPE-183 022-MS.
6. Kerstin Bach, Tomasz Szymon Szczepanski, Agnar Aamodt, Odd Erik Gundersen, Paul Jarle Mork: Case Representation and Similarity Assessment in the SELFBACK Decision Support System. ICCBR 2016. *Lecture Notes in Computer Science* 2016; Volume 9969, pp. 32-46.
7. Hoda Nikpour, Agnar Aamodt, Paal Skalle: Diagnosing Root Causes and Generating Graphical Explanations by Integrating Temporal Causal Reasoning and CBR. ICCBR 2016, Workshops Proceedings. CEUR Workshops Proceedings Vol.1815, ISSN 1613-0073, pp. 162-172.
8. Kerstin Bach, Tomasz Szczepanski, Agnar Aamodt, Odd Erik Gundersen, and Paul Jarle Mork. Case Representation and Similarity Assessment in the SELFBACK Decision Support System ICCBR 2016, Atlanta, Oct.-Nov. 2016.
9. Sizov, Gleb; Ozturk, Pinar; Aamodt, Agnar. Evidence-driven retrieval in textual CBR: Bridging the gap between retrieval and reuse. The 22nd International Conference on Case-Based Reasoning (ICCBR 2015). *Lecture Notes in Computer Science* 2015 ;Volum 9343. s. 351-365.
10. Kofod-Petersen, Anders; Andersen, Ole Johan; Aamodt, Agnar. Case-based reasoning for improving traffic flow in urban intersections. The 22nd International Conference on Case-Based Reasoning (ICCBR 2014). *Lecture Notes in Computer Science* 2014 ;Volum 8765. p. 215-229
11. Ozturk, Pinar; Munoz-Avila, Hector; Aamodt, Agnar. Explanation of opportunities. I: The 22nd International Conference on Case-Based Reasoning (ICCBR 2014), Workshop on Case-Based Agents, Workshop Proceedings. Cork, Ireland: International Conference on Case-Based Reasoning 2014 s. 4-16
12. Pål Skalle, Agnar Aamodt, Karin Lauman: Integrating human related errors with technical errors to determine causes behind offshore accidents. *Safety Science*, Online publ.: DOI , Printed publ.: Vol. 63, March 2014. Elsevier. pp 179-191.
13. Samad Valipour Shokouhi, Pål Skalle, Agnar Aamodt: An overview of case-based reasoning applications in drilling engineering. *Artificial Intelligence Review*; Volume 41 (3), March 2014, p. 317-329.
14. Pål Skalle, Agnar Aamodt, Odd Erik Gundersen: Experience Transfer for Process Improvement. *Engineering Applications of Artificial Intelligence*, 26 (2013), Elsevier, 2013. pp 2206-2214.
15. Odd Erik Gundersen, Frode Sørmo, Agnar Aamodt, Pål Skalle: A real-time decision support system for high cost oil-well drilling operations. *AI Magazine*, Volume 34, Number 1, Spring 2013. ISSN-0738-4602. pp 21-32.
16. Pål Skalle, Agnar Aamodt, Odd Erik Gundersen: Detection of Symptoms for Revealing Causes Leading to Drilling Failures. *SPE Drilling & Completion* Volum 28 (2). 2013. pp. 182-193.

### **Patents**

1. Agnar Aamodt, Pål Skalle, Odd Erik Gundersen, Frode Sørmo: Method and system for monitoring a drilling operation. Reg. 2009-03-16. GB Patent no.: GB GB2460556, US Patent no.: US20100235101.