



Dr. Ulli Waltinger

Digital Nomad | Founder
| Researcher | Innovator |
Intrapreneur | Leader

Bold - Committed - OpenMinded

CONTACT

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RESEARCH

Artificial Intelligence - 100 %

Machine Learning - 100 %

NLP - 100 %

Information Retrieval - 100 %

Responsible AI - 90 %

Cognitive Science - 80 %

Symbolic Learning - 80 %

Profile

- Ulli Waltinger is the Associate Vice President for Artificial Intelligence & IoT (#AloT) at Siemens Advanta Consulting and a Fellow of the Siemens AI Lab.
- Prior he was the Technology Head of the Siemens AI Lab and Head of the Machine Intelligence Research Group at Siemens Technology, Siemens' global research organization.
- Ulli is curious about the foundations of computational intelligence, specifically methodologies that bridge the areas of connectionist and symbolic learning applied to real-world AI and NLP applications.
- He is passionate about enabling an open and interdisciplinary research and innovation culture with meaningful impact to people's life.
- Ulli contributes with >40 publications and >100 talks to the fields of computer science, artificial intelligence, computational linguistics, and cognitive science.
- Ulli's responsibilities cover an annual budget of > € 3,5 mio, leading > 20 talents (direct reports), generating a business impact > € 200 mio, and advising corporate board level
- Prior he worked at the Artificial Intelligence department and the Center of Excellence of Cognitive Interaction Technology at the University of Bielefeld.
- Over the last years, he pushed and led, within Siemens, various AI initiatives, such as the Core Technology Initiative on Deep Learning and Artificial Intelligence 2015, various Hackathons and Bootcamps on AI, and founded together with a passionate team in 2017 the Siemens Artificial Intelligence Lab in Munich.

EDUCATION AND EXPERIENCE

Associate Vice President - Artificial Intelligence & IoT

Siemens Advanta Consulting (Munich, Germany) [May 2021 - Present](#)
Initiating new AloT business opportunities for our partners at a global scale by shaping a culture of innovation, open collaboration, technology excellence, and customer obsession.

- Leading and shaping high-performance teams (>6 DE / >30 WORLD) of deep learning & machine learning experts and consultants, PhDs, and excellent students.
- Responsible for strategic positioning, portfolio, and staffing
- Driving the end-customer co-creation implementation within orientation and incubation phases leading to business impact leads

Technical Fellow

Siemens AI Lab - Siemens AG - Technology (Munich, Bavaria, Germany) [April 2021 - Present](#)

Amplify and shape the profile, collaboration, and impact of the AI Lab together with the partners of the AI ecosystem from outside-in. Enabling an open and interdisciplinary research and innovation culture with an meaningful impact to enhance people's lives.

SOFTWARE

Python - 80 %
Java - 80 %
R - 70 %
C++ - 60 %

MANAGEMENT

AI Development Cycle - 90 %
Design Thinking - 90 %
Innovation Management - 90 %
Project Management - 80 %
Customer Centricity - 90 %
Innovation Culture - 100 %
Scrum - 90 %

LANGUAGE

German - 100 %
English - 100 %

PRINCIPLES

Scientific Rigour - 100 %
Empowered - 100 %
Open Research - 100 %
Collaborative & Fair - 100 %

RESPONSIBILITIES

Financial > 3 mio budget -
People > 20 talents -
Teams > 3 groups -
Business Impact > 200 mio -
Leading complexity > 10 years -
CEO advised > 150 -
Business founded > 3 -
Publications > 40 -
Patents > 6 -

- Enabling an open and interdisciplinary research and innovation culture with meaningful impact through greenfield, hackweek, bootcamp and various other innovation initiatives pushing the transformation
- Defining the ecosystem play from outside-in
- Technology stack: stanford core nlp, deep learning, representation learning, tensor factorization, knowledge graphs, sequence mining, information retrieval, java, python, sinequa, apache lucene, weka, scikit-learn, tableau, sas, r, pandas, numpy



Founder & Technology Head of Siemens AI Lab

Siemens AG - Corporate Technology (Munich, Germany) [Sep 2017 - April 2021](#)

The Siemens AI Lab is drives the accelerated implementation of innovative ideas. We provide a space for collaborative focus, where talents can work on high-impact projects in an inspiring environment. You are contributing to the future of Siemens by doing the things you are most passionate about - with 100% commitment, zero politics and minimal distractions from your usual work obligations.

Key Achievement

- Responsible for strategic positioning, setup definition, staffing, from idea, management inclusion, budget negotiations, to realization, and scale - establishing the new entity
- Implementation of the incubation, coding-sprints, and acceleration formats leading to high-performance team structures with double digit impact
- Nominated Top10 for the Werner von Siemens Award 2018 & 2019
- Winner German Design Award 2018 for Corporate Design
- Enabling the Siemens AI Residency program on industrial AI from process, technology footprint, to implementation leading to new talent blueprint for HR
- Driving the end-customer co-creation implementation within orientation and incubation phases leading to business impact leads
- Facilitating 300x talents/year, colleagues and customers towards meaningful AI-driven innovation from coding sprints, to hackathon, from AI bootcamps, to internal start-ups
- Accelerating 30x projects/year initiatives from ideation, incubation, to scale leading to high impact within business segments and products



Head of Machine Intelligence Research Group

Siemens AG - Corporate Technology (Munich, Germany) [Aug 2016 - Present](#)

The Machine Intelligence research group drives the progress and adoption of AI technology with meaningful impact for Siemens

Key Achievement

- Responsible for Siemens AI and deep learning initiatives from strategic positioning, project coordination, budget negotiations, to technical implementation
- Leading and shaping high-performance teams (>20) of deep learning & machine learning experts, PhDs, and excellent students.

AWARD

Top 5

Werner von Siemens Award
2018 & 2019

Corporate Design

German Design Award 2018

Industry Application

Award

AAAI / IAAI 2013

Thesis Scholarship

Bertelsmann Group 2007

- Developing the AI and Machine Intelligence research strategy within Siemens Corporate Technology leading to multi-year program on Machine Intelligence and within Siemens-Atos alliance
- Defining and implementing the core technology initiative on AI and Deep Learning within Siemens Corporate Technology leading to double digit million research invest
- Responsible for the design, implementation, and world-wide roll-out of the corporate AI trainings curriculum for top200 CEOs and 1500 top manager
- Enabling an open and interdisciplinary research and innovation culture with meaningful impact through greenfield, hackweek, bootcamp and various other innovation initiatives pushing the transformation
- Technology stack: deep learning, representation learning, tensor factorization, knowledge graphs, sequence mining, information retrieval, java, python, sinequa, apache lucene, weka, scikit-learn, tableau, sas, r, pandas, numpy

REFERENCE

Prof. Dr. Alexander Mehler

Professor for Computational
Humanities / Text Technology
Goethe University Frankfurt
am Main

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frankfurt.de

Prof. Dr. Ipke Wachsmuth

Emeritus Professor of Artificial
Intelligence
Bielefeld University

Email : ipke.wachsmuth@uni-
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Michal Skubacz

Head of Industry Software for
Motion Control Systems at
Digital Factory
Siemens AG

Email :
michal.skubacz@siemens.com

Thomas Hahn

Chief Expert Software Officer
Siemens AG

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Portfolio Project Manager Semantic Machine Learning

Siemens AG - Corporate Technology (Munich, Germany) [Oct 2015 - Jul 2016](#)

The Knowledge Management & Retrieval Group combined semantic, symbolic and machine learning technologies developed and integrated Siemens products and services

Key Achievement

- Responsible for the semantic machine learning research portfolio from strategic positioning, project coordination, budget negotiations, to technical implementation
- Lead a team >6 of deep learning & machine learning data scientists
- Developed AI-based predictive maintenance solutions for Siemens Health computed tomography within brown-field environment to optimize down-times and increase service fleet efficiency
- Developed AI-based smart recommendation system for Siemens Health to optimize spare part tourism and increase exchange rate efficiency
- Setup of agile scrum-based software development environment for Siemens Health across >6 teams and >2 locations for incremental builds and delivery to customer
- Lead corporate semantic search connectivity and architecture Initiative for Siemens Energy leading to biggest search and retrieval system index within Siemens worldwide
- Developed multiple proof-of-concepts using machine learning
- Technology stack: deep learning, representation learning, tensor factorization, knowledge graphs, sequence mining, information retrieval, java, python, sinequa, apache lucene, weka, scikit-learn, tableau, sas, r, pandas, numpy



Senior Key Expert Engineer

Siemens AG - Corporate Technology (Munich, Germany) [Jul 2014 - Sep 2015](#)

The Knowledge Management & Retrieval Group combined semantic, symbolic and machine learning technologies developed and

integrated Siemens products and services

Key Achievement

- Responsible for the AI-driven semantic search initiatives from strategic positioning, acquisition, project coordination, budget negotiations, to technical implementation leading to strategic portfolio element
- Setup of agile scrum-based software development environment for Siemens Energy across >6 teams and >4 countries for incremental builds and delivery to customer
- Developed AI-based predictive maintenance solutions for Siemens Health computed tomography within brown-field environment to optimize down-times and increase service fleet efficiency
- Developed AI-based smart recommendation system for Siemens Health to optimize spare part tourism and increase exchange rate efficiency
- Lead corporate semantic search connectivity and architecture initiative for Siemens Energy leading to biggest search and retrieval system index within Siemens worldwide
- Developed multiple proof-of-concepts using machine learning
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○ Research Engineer

Siemens AG - Corporate Technology (Munich, Germany) [Jan 2012 - Jun 2014](#)

The Knowledge Management & Retrieval Group combined semantic, symbolic and machine learning technologies developed and integrated Siemens products and services

Key Achievement

- Responsible for strategic positioning of AI-based and semantic question answering from acquisition, planning, to implementation, and customer deployment
- Lead development of the IAAI-award-winning corporate question answering system for Siemens Energy used by > 4000 users in production
- Development of smart query builder interface for fleet intelligence for Siemens Energy leading to increase customization of fleet reporting and visual analytics
- Setup of agile scrum-based software development environment across multiple teams > 15, countries >3, and cities > 5, leading to high-performance team structure and incremental builds and customer delivery
- Developed NLP-pipeline for market intelligence for Siemens Energy leading to continuous market, customer, and competitor analysis
- Lead consulting of semantic search architectures for Siemens Energy
- Developed multiple proof-of-concepts using ai, machine learning technologies

○ Senior Researcher

University of Bielefeld, Artificial Intelligence Group (Bielefeld, Germany)
[Oct 2010 - Dec 2011](#)

Post-doctoral research at the technical faculty of the university of bielefeld, the artificial intelligence research group and the center of excellence of cognitive interaction technology.

Key Achievement

- Developed wikiqa as a real-time question answering system which enables artificial agents to explore crowd sourced knowledge resources utilizing symbolic and data-driven knowledge representations
- Implemented wikicat as an open topic modeling framework for graph-based topic retrieval
- Implemented nlpproc as a Natural Language Processing Engine using C++ and Java for distributional semantics
- Implemented NLP and IR for query answering and topic detection within multi-agent-architecture of max
- Taught course on intelligent information retrieval
- Advised two graduate assistants on data mining and information extraction
- Research domains: question answering, sentiment classification, topic identification, Conversational agents, human avatars, cognitive interaction, information retrieval

Research Associate

University of Bielefeld, Center of Excellence of Cognitive Interaction (Bielefeld, Germany) [Oct 2009 - Sep 2010](#)

Research associate at the technical faculty of the university of bielefeld, the artificial intelligence research group and the center of excellence of cognitive interaction technology.

Key Achievement

- Developed and implemented a topic detection system for virtual avatar Max
- Implemented a question answering system that connects Wikipedia with virtual avatar
- Implementing natural language processing algorithms using C++ and Java
- Advising and instructing of two graduate assistants on data mining and information extraction
- Enabled to build a technology which enables artificial agents to explore "crowdsourced" knowledge resources generated by large communities of web users.
- Technology: NLP, semantic spaces, machine learning, sentiment analysis, text clustering, topic detection

Research Associate

University of Bielefeld, Technical Faculty (Bielefeld, Germany) [Jan 2007 - Sep 2010](#)

Research associate at the technical faculty of the university of bielefeld, the artificial intelligence research group and the center of excellence of cognitive interaction technology.

Key Achievement

- Provided statistical modeling and information management
- Implemented and evaluated a shallow parser and preprocessing software in C++
- Advised and instructed three

graduate assistants on database management and text technology

- Affiliated with several DFG funded research projects:
- Induction of Document Grammars for the Representation of Logical Hypertext Document Structures as part of the Research Group Text Technological Information Modelling
- BMBF- joint research project Linguistic Networks - Text Technological Representation, Computational Linguistic Synthesis and Physical Modelling
- DFG-research project Automatic Enrichment of OAI Metadata.

○ Research Associate

University of Bielefeld, Faculty of Linguistic (Bielefeld, Germany) [Jun 2008 - Sep 2009](#)

Research associate at the faculty of linguistic of the university of bielefeld

Key Achievement

- Provided statistical modeling and information management
- Developed and implemented a sentiment analysis system
- Developed (Core-Developer Team) and integrated an online web- desktop system (<http://hudesktop.hucompute.org/>) for scientific research groups using C++, Java, JSP and ExtJS
- Implemented and evaluated a shallow parser and preprocessing software in C++
- Advised and instructed three graduate assistants on database management and text technology
- DFG-Research Project Multimodal alignment corpora: statistical modeling and information management. database management, information architecture, linguistic analysis, machine learning

○ Research Associate

University of Bielefeld, Faculty of Linguistic (Bielefeld, Germany) [Jan 2007 - May 2008](#)

Research associate at the faculty of linguistic of the university of bielefeld

Key Achievement

- DFG-Research Project: Scientific Library Services and Information Systems (LIS). Development, testing and evaluation of content based peer2peer-agents (software) for thematic structure and search optimization in digital libraries. peer-2-peer software, text classification, topic detection and tracking.
- Topic-oriented peer-to-peer agents for thematic structure and search optimization in digital libraries
- Designed and implemented a topic detection and tracking system in C++
- Developed a named instance recognition system for natural language texts

○ Founder & Developer

MEDIAcouch (Bielefeld, Germany) [Jan 2005 - Dec 2011](#)

Freelance agency for web- and software development from consulting, concept creation, design, to software implementation.

Key Achievement

- Designed, implemented and launched more than 80 web development projects for world-wide gaming industry from DTP entertainment to Daedalic
- Large-scale software and media consulting for M-Events in Munich, Berlin, Stockholm and Barcelona
- Corporate web- and software development work for Karstadt, Sat1 and Reise.de
- Designed, developed and launched online tamagotchi for Pferd&Pony
- Technologies: PHP, ASP and Adobe Flash AS, Adobe Photoshop, Adobe Illustrator

○ Internship

dtp entertainment AG (Hamburg, Germany) [Feb 2005 - Jun 2005](#)

Computer games, media and software development, management of online/web-projects

Key Achievement

- Developed and launched several web projects for game publisher using PHP/Adobe Flash
- Developed several DVD and CD-ROM applications for product promotion using Zinc/Adobe Flash
- Authored several press releases for the marketing department

○ Co-Founder & Co-head

MAJORmedia (Regensburg, Germany) [Jan 1999 - Dec 2005](#)

Co-founded the cross-media agency focusing on web- and software development

Key Achievement

- Responsible for strategic positioning, project management, and staffing
- Designed, implemented and launched more than 20 web development projects for various customers

○ Internship

CS Softwaredevelopment (Regensburg, Germany) [Jan 2000 - Dec 2000](#)

IT Consulting, Software and Web Development

Key Achievement

- Developed and launched web projects using PHP/ASP
- Involved in the product cycle of a software release (Visual C++)

EDUCATION

○ PhD (Dr. rer. nat), Computer Science, 1.0

University of Bielefeld (Bielefeld, Germany) [2007 - 2011](#)

Thesis: On Social Semantics in Information Retrieval: From Knowledge Discovery to Collective Web Intelligence in the Social Semantic Web
 In this thesis we analyze the performance of social semantics in textual information retrieval. By means of collaboratively constructed knowledge derived from web-based social networks, including both common-sense and domain-specific knowledge, we will establish an improvement in performance of selected tasks within different areas of

information retrieval. This work connects human intelligence with machine learning and natural language processing.

 **M.Sc., Interdisciplinary Media Studies, 1.3**

University of Bielefeld (Bielefeld, Germany) [2004 - 2007](#)

Thesis: Classification and RSS: Development of an ontology for the publication of scientific texts using RSS-Atom. Scholarship awarded by Bertelsmann Group

 **BA (Hons), Multimedia Arts, 2:1**

Middlesex University (London, UK) [2001 - 2004](#)

Thesis: E-paper as a channel of newspaper distribution: A systematic evaluation of current e-paper technologies. Students Year Abroad (10/2003-10/2004): Byron Bay, NWS, Australia

Selected Publications

JOURNAL

- Waltinger, U., Blumoser B. 2019: Responsible AI: Transparenz, Bias und Verantwortung in der KI in: Handelsblatt Journal „Future IT“, December 17th, 2019, pp 8-10
- Cohen, a., Chernova, S., Sonntag, D., Leonetti, M. et al. Waltinger, U., 2014. Reports on the 2014 AAAI Fall Symposium Series, in: AI Magazine, Vol 36, No 3, pp 99-106.
- Waltinger, U., Tecuci, D., Olteanu, M., Mocanu, V., and Sullivan, S. 2014. Natural Language Access to Enterprise Data, in: AI Magazine, Vol 35, No 1, pp 38-52
- Waltinger, U., Beuing, A., Wachsmuth, I. 2012. Connecting Question Answering and Conversational Agents: Contextualizing German Questions for Interactive Question Answering Systems, in: KI – Künstliche Intelligenz: Springer, pp 381-390
- Waltinger, U., Mehler, A., Lösch, M., & Horstmann, W. 2011. Hierarchical Classification of OAI Metadata Using the DDC Taxonomy, in: R. Bernardi, S. Chambers, B. Gottfried, F. Segond, & I. Zaihrayeu (Eds.), *Advanced Language Technologies for Digital Libraries*, 6699. Berlin / Heidelberg: Springer, 29 – 40
- Lösch, M., Waltinger, U., W. Horstmann, & A. Mehler. 2011. Building a DDC-annotated Corpus from OAI Metadata. *Journal of Digital Information*, 12(2)
- Mehler, A., N. Diewald, Waltinger, U., R. Gleim, D. Esch, B. Job, T. Küchelmann, O. Pustyl'nikov, & P. Blanchard. 2011. Evolution of Romance Language in Written Communication: Network Analysis of Late Latin and Early Romance Corpora. *Leonardo*, 44(3)
- Mehler, A., & Waltinger, U. 2009. Enhancing document modeling by means of open topic models: Crossing the frontier of classification schemes in digital libraries by example of the DDC. *Library Hi Tech*, 27(4), 520 – 539
- Mehler, A., Gleim, R., Ernst, A. & Waltinger, U. 2008. WikiDB: Building Interoperable Wiki-Based Knowledge Resources for Semantic Databases. *Sprache und Datenverarbeitung. International Journal for Language Data Processing*, 32(1)

BOOK CHAPTERS

- Waltinger, U., & Breuing, A. 2012. Internet-based Communication, in: A. Mehler, L. Romary, & D. Gibbon (Eds.), *Handbook of Applied Linguistics, Technical Communication*. Berlin/New York: Mouton de Gruyter, pp 533-569
- Cramer, I., Wandmacher, T., & Waltinger, U. 2011. Exploring Resources for Lexical Chaining: A Comparison of Automated Semantic Relatedness Measures and Human Judgements, in: A. Mehler, K.-U.K. Henning Lobin and Harald Lungen and, A. Storrer, & A. Witt (Eds.), *Modeling, Learning and Processing of Text Technological Data Structures*. Berlin/New York: Springer, pp 377-396
- Mehler, A., & Waltinger, U. 2011. Integrating Content and Structure Learning: A Model of Hypertext Zoning and Sounding, in: A. Mehler, K.-U.K. Henning Lobin and Harald Lungen and, A. Storrer, & A. Witt (Eds.),

CONFERENCE

- Poerner, N., Waltinger, U. Schuetze H. 2020. E-BERT: Efficient-Yet-Effective Entity Embeddings for BERT.. Online. Findings of the Association for Computational Linguistics: EMNLP 2020, November 2020
- Poerner, N., Waltinger, U. Schuetze H. 2020. Inexpensive Domain Adaptation of Pretrained Language Models: Case Studies on Biomedical NER and Covid-19 QA. Online. Findings of the Association for Computational Linguistics: EMNLP 2020, November 2020
- Poerner, N., Waltinger, U. Schuetze H. 2020. Sentence Meta-Embeddings for Unsupervised Semantic Textual Similarity. Online. Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL), July 2020
- Buettner, F., Piorkowski, J., McCulloh, I., Waltinger, U.. 2020. Human-Centered AI: Trustworthiness of AI Models and Data Proceedings. Arlington, USA. Proceedings of the AAAI FSS-19, Jan 2020
- Karn, S., Buckley, M., Waltinger, U., and Schütze, H. 2019. News Article Teaser Tweets and How to Generate Them. Minneapolis, USA. Proceedings of the North American Chapter of the Association for Computational Linguistics (NAACL), June 2019 (NAACL-HLT-2019)
- Karn, S., Waltinger, U., and Schütze, H. 2017. End-to-End Trainable Attentive Decoder for Hierarchical Entity Classification. Valencia, Spain. Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2017)
- Sander, M., Waltinger, U., Roshchin, M., and Runkler, T.. 2014. Ontology-based translation of natural language queries to SPARQL. Arlington, VA, US. Proceedings of the Association for the Advancement of Artificial Intelligence (AAAI) Symposium on Natural Language Access to Big Data
- Waltinger, U. and Ostankov, A. 2014. Smart Data Access: Semantic Web Technologies for Energy Diagnostics. Riva del Garda, Italy. Proceedings of the 13th International Semantic Web Conference (ISWC 2014)
- Waltinger, U., Tecuci, D., Olteanu, M., Mocanu, V., and Sullivan, S. 2013. USI Answers: Natural Language Question Answering Over (Semi-) Structured Industry Data . Bellevue, Washington, USA. Proceedings of the Twenty-Fifth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-13/AAAI-13)
- Waltinger, U., Tecuci, D., Picioroaga, F., Grigoras, C., and Sullivan, S. 2013. Market Intelligence: Linked Data-driven Entity Resolution for Customer and Competitor Analysis. Aalborg, North Denmark. Proceedings of the 13th International Conference on Web Engineering (ICWE 2013)
- Clematide, S., Gindl, S., Klenner, M., Petrakis, S., Remus, R., Ruppenhofer, J., Waltinger, U., & Wiegand, M. 2012. MLSA – A Multi-layered Reference Corpus for German Sentiment Analysis, Istanbul, Turkey: European Language Resources Association (ELRA)
- Waltinger, U., Breuing, A., & Wachsmuth, I. 2011. Interfacing Virtual Agents With Collaborative Knowledge: Open Domain Question Answering Using Wikipedia-based Topic Models, in: T. Walsh (Ed.),

- Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI-11). Barcelona, Spain: AAAI Press, 1896 – 1902.
- Waltinger, U. 2011. An Empirical Study on Machine Learning-based Sentiment Classification Using Polarity Clues, in: M.W.M.P. Aalst van der, J. Mylopoulos, M. Rosemann, M.J. Shaw, & C. Szyperski (Eds.), Lecture Notes in Business Information Processing (LNBIP), 75. Valencia, Spain: Springer, 202 – 214
 - Waltinger, U. 2010. GermanPolarityClues: A Lexical Resource for German Sentiment Analysis, in: B.M.K.C. Nicoletta Calzolari (Conference Chair) (Ed.), Proceedings of the Seventh conference on International Language Resources and Evaluation (LREC'10). Valletta, Malta: European Language Resources Association (ELRA)
 - Waltinger, U., & A. Mehler. 2009. Social Semantics and Its Evaluation by Means of Semantic Relatedness and Open Topic Models, in: Proceedings of the 2009 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology, 1. Washington, DC, USA: IEEE Computer Society, 42 – 49
 - Waltinger, U., I. Cramer, & T. Wandmacher. 2009. From Social Networks To Distributional Properties: A Comparative Study On Computing Semantic Relatedness, in: N.A. Taatgen, & H. Rijn van (Eds.), Proceedings of the 31th Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society, 3016 – 3021.

PATENT

- Waltinger U., Metz, D., Wurm, K. 2019: EP 19178645.8-1205 – 1126: Verfahren zur Computer-Implementierten Simulation des Betriebs einer Automatisierungsanlage, Siemens AG
- Hipp, T., Hubauer, T., Waltinger U. 2019: EP19164965.6 – 1126: Sequence Mining in Medical IOT Data, Siemens Healthcare GmbH
- Waltinger, U. 2015 : DE102015225144A1 : System and method for diagnosing at least one serviceable component of a device and / or system, Siemens AG
- Waltinger, U. 2014 : US9704098B2 : Generating a classifier for performing a query to a given knowledge base, Siemens AG
- Waltinger, U. 2014 : US10095727B2 : Data unification device and method for unifying unstructured data objects and structured data objects into unified semantic objects, Siemens AG
- Waltinger, U., Tecuci, D. 2014 : EP2962256A1 : Device and method for answering a natural language question using a number of selected knowledge bases , Siemens AG
- Hubauer T, Lamparter S, Roshchin M, Waltinger, U. 2014 : WO2016045735A1 : Method and system for performing a configuration of an automation system, Siemens AG

TALKS

- Chair: AI in Manufacturing Event: WeConnect Global Leaders Conference, Berlin, November 22nd, 2021
- ReThink AIoT: Technology with Purpose in the Age of Industrial AI Event: 2021 IEEE ICTE Leading Digital Transformation for Society and

Business, Kaunas, Lithuania, August 27nd, 2021

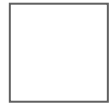
- ReThink AIoT: How to combine Enterprise AI and Industrial AI for Electric Utilities Event: IoT World Solutions Congress – Digital Days, Munich, May 11th, 2021
- AI-powered Business Models in Industrial AI and AIoT Event: IESE Business School, Munich, March 25th, 2021
- AI-driven Business Models Event: TICC Talk at EBS University, March 22nd, 2021
- Jury: AI Hackathon for Mobility Event: Telekom Diversity Hack, February 21st, 2021
- How to scale AI implementations for Businesses Event: The AI Summit New York 2020, December 10th, 2020
- Let's talk Sustainability: The Role of Responsible Industrial AI Event: Siemens Innovation Days 2020, Oslo, Norway, February 5th, 2020
- Leadership in the Age of AI: Encoding Autonomy, Agility, and Purpose in an AI-driven Organization Event: Applied Machine Learning Days at EPFL, Lausanne, Switzerland, January 25th, 2020
- Trustworthy AI – Vertrauen, Fairness, und Bias in der Künstlichen Intelligenz Event: Handelsblatt – Strategisches IT-Management 2020, Munich, Germany, January 20th, 2020
- Connecting the Ecosystem on Industrial AI Event: Manufacturing Association Israel, Tel Aviv, Israel, December 2nd, 2019
- Responsible AI Event: Google Cloud Next 19, London, UK, November 21th, 2019
- AI for Smart Grids and Energy Applications Event: 1st Greek-German Innovation Forum, Athen, Greece, November 18th, 2019
- Unlocking the true potential of AI Event: Corporate Innovation Summit at Web Summit 2019, Lisbon, Portugal, November 6th, 2019
- Enlightened Innovation for the Global Goals – How companies and entrepreneurs can work for a sustainable future Event: United Nations SDG Media Zone at the Web Summit 2019, Lisbon, Portugal, November 6th, 2019
- AI for Sustainability – Responsible Industrial AI and its Role for Sustainability Event: Opening of the AI and Big Data at DTU High Tech Summit 2019, Copenhagen, Denmark, October 30th, 2019
- Ethics in Algorithms and Machine Learning: How Intelligent is Artificial Intelligence Event: Opening of the TUM Institute for Ethics in Artificial Intelligence, Munich, Germany, October 7th, 2019
- Responsible Industrial Artificial Intelligence: How to Accelerate the Impact of Industrial AI at Scale Event: AI Summit Vietnam 2019, Hanoi, Vietnam, August 16th, 2019
- Impact and Future of AI in Industrial Applications and Energy Management Event: Grid Masters Club Summit, Rome, Italy, May 23rd, 2019
- Industrial AI – Responsible AI: Recent Trends in Trust, Fairness, Bias, Robustness in AI & Machine Learning: Event: 1st Digital Ethics Conference in collaboration with the 1st CyberSecurity Tech Summit – Bonn, Germany, March 13th, 2019
- The State of AI – Truth, Data, and Algorithms, Event: House of Beautiful Business, Lisbon, Portugal, November 3-8, 2018
- AI For Business: How to Create Talented Teams and Deliver Successful AI Solutions, Event: Nvidia GPU Technology Conference (GTC), Munich, Germany, October 10th 2018
- AI – Potential for the German Industry Event: Hannover Messe – HMI18, April 25th, 2018

- Artificial Intelligence at Siemens: Teaching Machines to Learn from Blackbox to Explainable, Future Security 2018 – Munich Security Conference, Munich, Germany, February 15th, 2018

PRESS

- Responsible AI – Transparency, Bias, and Responsibility in the Age of Trustworthy Artificial Intelligence Editor: Siemens, Munich, November 26th, 2020
- Blick in die Blackbox: Warum Unternehmen einen neuen KI-Ansatz nutzen sollten. Editor: Handelsblatt, Duesseldorf, March 11th, 2020
- AI Summit: A look inside the Siemens AI lab Event: The AI Summit New York, Virtual, December 10th, 2020
- Handelsblatt: Siemens AI Lab: Start-up-Atmosphäre im Traditionskonzern: Siemens stellt Innovationen in den Mittelpunkt. Editor: Handelsblatt, Munich, January 30th, 2020
- FAZ: Wie Künstliche Intelligenz der Industrie hilft Editor: Frankfurter Allgemeine Zeitung, Stuttgart, October 9th, 2018
- Svet Kapitala: Je kompleksier die Welt wird, desto mehr fordern wir Vereinfachungen – Bolj kompleksen ko postaja svet, bolj zahtevamo njegove poenostavitve Editor: Svet Kapitala, Slovenia, October 4th, 2019
- Innovation Roundtable: Hacking the Future and Accelerating the Implementation of Innovative Ideas: Event: Innovation Roundtable – 2017, Brussel, Belgium, February 19th, 2019

SERVICES



TEACHING - UNIVERSITY OF BIELEFELD

Lectures, seminars, and supervisions performed at University of Bielefeld

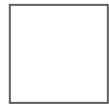
- Intelligent Information Retrieval (2011)
- Representation and processing of multimodal documents (2010)
- Text Technology (2009)
- Digital Terminology (2008)
- Structuring of information (2007)
- Digital Terminology (2007)



THESIS SUPERVISION

Student supervision with Technical University of Munich and Bielefeld University

- Sanjeev Kumar Karn (MA), 2016 – TU Munich
- Malte Sander (MA), 2014 – TU Munich
- Artem Ostankov (MA), 2014 – TU Munich
- Thomas Meyer (MA) – Bielefeld University
- Jan Laußmann Kubina (MA), 2010 – Bielefeld University
- Petra Kubina (MA), 2010 – Bielefeld University
- Tobias Feith (BA), 2010 – Bielefeld University



GROUP PHD

PhD students affiliated to the machine intelligence research group at Siemens

- Usama Yaseen, LMU Germany, 2019 – x
- Yatin Chaudhary, LMU Germany, 2019 – x
- Pankaj Gupta, LMU Germany, 2016 – 2019
- Sanjeev Kumar Karn, LMU Germany, 2016 – 2019



SYMPOSIUM

Human-Centered AI: To facilitate the widespread acceptance of AI systems guiding decision-making in real-world applications.

- Fall Symposium: Human Centered AI: Trustworthiness of AI Models and Data, AAAI 2019 Fall Symposium Series in Arlington, VA, USA, November 7–9, 2019
- Fall Symposium: Natural Language Access to Big Data, AAAI 2014 Fall Symposium Series in Arlington, VA, USA, November 13–15, 2014



MEMBERSHIP

Active member or regular scientific reviewer and contributor to the following organization

- AAAI
- IEEE
- ACL
- Gesellschaft für Informatik (GI)
- Gesellschaft für Sprachtechnologie und Computerlinguistik (GSCL)
- Interest Group on German Sentiment Analysis (IGGSA)

