



Maria M. Hedblom

Ph.D. in Computer Science

Education

- 04/14 - 03/18 **Phd in Artificial Intelligence** [University of Magdeburg, Germany](#)
At the intersection between classic knowledge representation, cognitive linguistics and developmental psychology my phd research focused on image schemas and concept invention as part of the high-profile international research project Coinvent.2005
PhD Thesis: *Image Schemas and Concept Invention: Cognitive, Logical, and Linguistic investigations*
- 08/12 - 11/13 **Master's Degree in Cognitive Science** [University of Linköping, Sweden](#)
Main subjects: Computer Science, Linguistics, Psychology.
Master Thesis: *A Cognition-Based Definition of Creativity and A Proposition for Approaching Creativity Artificially.*
- 09/11 - 09/12 **Erasmus exchange year** [Osnabrück University, Germany](#)
Main subjects: Computer Science, Linguistics, Neuroscience.
- 09/09 - 09/13 **Bachelor's Degree in Cognitive Science** [University of Linköping, Sweden](#)
Main subjects: Research Methodology, Computer Science, Psychology
Bachelor Thesis: *The Role of Working Memory in Creative Insight: Correlation analysis of working memory capacity, creative insight and divergent thinking.*
- 08/08 - 06/09 **Literature studies** [University of Linköping, Sweden](#)
Main subjects: Literature, Text analysis, Writing.
- 08/06 - 06/08 **International Physics Engineering Program - Japanese** [Linköping Technical University, Sweden](#)
Main subjects: Mathematics, Physics, Japanese.
- 08/02 - 06/05 **Nature Science Gymnasium - Computer Science and Mathematics** [Berzeliuskolan, Linköping, Sweden](#)
Scientific Secondary School.
Main subjects: Mathematics, Nature Science, Computer Science.

Information

Nationality: Swedish
Year of birth: 1986

Contact

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Social

LinkedIn: goo.gl/3Hq1Hb
Google Scholar: goo.gl/1y8toL

Current Affiliation

Conceptual and Cognitive
Modelling Research Group
(CORE)
KRDB Research centre
Faculty of Computer Science
Free University of Bozen



Languages

Swedish ★★★★★
English ★★★★★
German ★★★★★
Italian ★★★★★
Japanese ★★★★★
Spanish ★★★★★

Computer Skills

Latex
MicroSoft Office
Python programming
Photoshop
Rapid weaver
Wordpress
NN-sim Emergent
Tobii Eye Tracking software

Research Skills

Research methods:
Qualitative,
Quantitative,
Ethnographic.
Statistical data analysis
Communication analysis
Language technology
Eye-tracking

Awarded Grants

Student Scholarship, 04/16
- KR Conference
Travel Grant, 11/15
- Shapes 3.0 Committee
Mobility Grant, 09/15-02/16
- AI*IA, Italian Asso. of AI
PhD-scholarship, 07/14-12/16
- OVGU, Uni. of Magdeburg
Travel Grant, 06/14
- PROSECCO
PhD Scholarship, 04/14-10/16
- Coinvent project
Erasmus Scholarship, 03/12
Erasmus Scholarship, 10/11

Academic Work and Teaching Experience

- 02/18 - 01/19 **Assistant researcher (AR)** [Faculty of Computer Science](#)
[Free University of Bozen-Bolzano, Italy](#)
Working for the project OCEAN at the CORE group at the KRDB research centre.
- 12/15 - 06/17 **Visiting researcher/Teaching assistant** [Faculty of Computer Science](#)
[Free University of Bozen-Bolzano, Italy](#)
Working on the European Union funded project Coinvent, as well as the internally funded projects CIAO and LOGIS.
Teaching: Technical and Scientific Communication and Supervision of a master student project
- 02/17 - 09/17 &
04/14 - 11/15 **Researcher/Teaching assistant** [Institute of Knowledge and Language Engineering](#)
[University of Magdeburg, Germany](#)
Working in the Theoretical Computer Science group.
Teaching: Student project on formalising image schemas, Seminar on computational creativity and Survey of research on the frontiers of computer science
- 08/12 - 03/13 **Teaching assistant** [Department of Computer and Information Science](#)
[Linköping University, Sweden](#)
Teaching: Introduction to cognitive science, Programming and discrete mathematics, Programming and logic and Cognitive modelling.

Academic responsibilities

- Co-chair: Early Career Symposium (ECS) at FOIS 2018, September 17-21 2018
Cape Town, South Africa
- Co-chair: *Cognition and OntologieS (CAOS 3)*, September 2018
Workshop at JOWO, Cape Town, South Africa
- Chair: Image Schema Day III (ISD3), 21-23 September 2017
Workshop at JOWO, Bozen-Bolzano, Italy
- Chair: *Cognition and OntologieS (CAOS) 2*, April 18 2017
Symposium at the AISB convention, Bath, UK
- Co-organiser: *Image schema day II*, August 22 2016
Workshop on image schemas and conceptual blending, Bozen-Bolzano, Italy
- Chair: *Cognition and OntologieS (CAOS)*, July 6 2016
Workshop at the FOIS conference, Annecy, France
- Publicity chair: *The Joint Ontology Workshop (JOWO)*, July 6 2016
Joint workshops at the FOIS conference, Annecy, France
- Local Organizer: *IAOA'S 3rd Interdisciplinary Summer School on Ontological Analysis*, June 27 - July 1 2016, Free University of Bozen-Bolzano, Italy
- Chair: *Image schema day*, October 2 2015
Workshop on image schemas at the Free University of Bozen-Bolzano
- Publicity chair: Kvit 2013, a student organized science conference.
Linköping University, Sweden

Selected Attended Conferences

JOWO 2017, Bolzano
ICMC 2017, Osnabrück
AISB 2017, Bath
FOIS 2016, Annecy
RaAM 2016, Berlin
KR 2016, Cape Town
DL 2016, Cape Town
AISC 2015, Genoa
CONTEXT 2015, Lanarca
UNILOG 2015, Istanbul
CC Week 2015, London
AIC 2014, Turin
FOIS 2014, Rio de Janeiro
ICCC 2014, Ljubljana

Research Interests

Artificial Intelligence
Developmental psychology
Creativity
Conceptualisation
Cognitive linguistics
Theory of mind
Neuroinformatics
Computational linguistics

Hobbies

Travel
Painting
Literature
Mountain climbing

Volunteer Work and Elected Office

- 08/12 - 05/13 **Board member of Kvit: PR** [University of Linköping, Sweden](#)
I was part of the Kvit-group that annually organizes the student science conference Kvit (Cognitive Science and Information Technology).
- 09/09 - 08/12 **Cinema projectionist** [The Movie Association Kårullen, Linköping University](#)
- 06/08 - 06/10 **Chairman** [The Movie Association Kårullen, Linköping University](#)
I was elected as Chairman for the university Cinema Association Kårullen. This meant I was responsible for running the cinema, its finances and leading the board. I was also the official representative and was responsible for organising the many collaborations with companies and other organisations.
- 09/11 - 09/13 **Board member: PR** [The Cinema Association Kårullen, Linköping University](#)

Selected Publications

"Under the Super-Suit: What Superheroes Can Reveal About Inherited properties in Conceptual Blending", Hedblom M. M., Peñaloza, R., Kutz, O. and Guizzardi, G., Proc. of ICCG, Salamanca, Spain, (2018) p. 216-223

"Breaking into Pieces: An Ontological Approach to Conceptual Model Complexity Management", Figueiredo, G., Duchardt, A., Hedblom, M. M., and Guizzardi, G., Proc. of RCIS, Nantes, France (2018)

"In, Out and Through: Formalising some dynamic aspects of the image schema Containment", Hedblom, M. M., Gromann, D., and Kutz, O., Proc. of KKR@SAC, Pau, France, (2018) p. 918-925

"Between Contact and Support: Introducing a logic for image schemas and directed movement", Hedblom, M. M., Kutz, O., Mossakowski, T., and Neuhaus, F., Proc. of AI*IA, Bari, Italy, (2017)

"Kinesthetic Mind Reader: A Method to Identify Image Schemas in Natural Language", Gromann, D. and Hedblom, M. M., Proc. of Advancements in Cognitive Systems (ACS), Troy, New York, US (2017)

"A narrative in three acts: Using combinations of image schemas to model events", Besold, T. R., Hedblom, M. M. and Kutz, O., Biological Inspired Cognitive Architectures 19:10-20, (2017)

"Image schemas in computational conceptual blending", Hedblom, M. M., Kutz, O. and Neuhaus, F., Cognitive Systems Research 39:42-57, (2016)

"Choosing the Right Path: Image Schema Theory as a Foundation for Concept Invention", Hedblom, M. M., Kutz, O. and Neuhaus, F., Journal of Artificial General Intelligence 6(1):21-54, (2015)

Breaking Down Finance: A method for concept simplification by identifying movement structures from the image schema PATH-following, Gromann, D., Hedblom, M. M., Proc. of the Joint Ontology Workshops (JOWO), Annecy, France (2016)

"Shape up, baby! Perception, image schemas and shapes in concept formation", Hedblom, M. M. and Kutz, O., Proc. of Shapes 3.0 Workshop, Lanarca (2015)