Anna Hjalmarsson

Speech Music and Hearing, CSC, KTH

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Research interests

Spoken dialogue systems, spoken language generation in dialogue systems, incremental dialogue processing, empirical analysis and modelling of intonation and discourse, evaluation of dialogue systems, embodied conversational agents.

Employment

2010 –	Speech, Music and Hearing, KTH, Researcher
2009 – 2010	Researcher, Columbia University, New York, USA
2004 – 2010	Speech, Music and Hearing, KTH, PhD student
2003 – 2004	Speech, Music and Hearing, KTH, research engineer

Academic Studies

2004 – 2010	KTH, Stockholm	Doctoral Thesis in Speech Communication
1998 – 2003	Linköping University	Degree of Master of Science in Cognitive Science
1994 – 1998	Katedralskolan, Skara	Gymnasieskola (High school)
1996 – 1997	Whangarei Girls' High School, New Zealand	Exchange student

Programming Skills

Java, scripting languages

Natural Languages

Native speaker of Swedish. Fluent in English.

Professional Activities

Workshops and Conferences

I have been part of the organizing committee for:
- The international SemDial workshop (Diaholmia), Workshop on the semantics and pragmatics of dialogue, 2009.
- The Swedish Fonetik meeting at KTH, 2007.

I have been a part of the program committee for:
- SEMDIAL 2010 (Workshop Series on the Semantics and Pragmatics of Dialogue)
- SEMDIAL 2011 (Workshop Series on the Semantics and Pragmatics of Dialogue)
- SEMDIAL 2012 (Workshop Series on the Semantics and Pragmatics of Dialogue)
- EMNLP-CoNLL 212 (Conference on Empirical Methods in Natural Language Processing and Computational Natural Language Learning)
- NoDaLiDa 2013 (The Nordic Conference of Computational Linguistics)
- IVA 2013 (Workshop on Real-time Conversations with Virtual Agents)
- NAACL HLT 2013 (The Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies).

I have been an associate chair for:
- ICMI 2013 (ACM International Conference on Multimodal Interaction)

Reviewing assignments for journals:

- Advances in Human-Computer Interaction, 2011.

Approved grants:

- Project leader of "Classifying and deploying pauses for flow control in conversational systems" (VR #2011-6152). Funding from the Swedish Research Council (2.400.000 SEK).

Other activities

- Member of the Postgraduate Students' Council at the School of Computer Science, KTH, (2005-2007).
- Member of the SemDial Advisory Board since 2009.
- Webmaster at the Department of Speech, Music and Hearing since 2009.
- Union representative for SACO in the School of Computer Science and Communication's co-ordinating group (samverkansgrupp) since 2011.

Pedagogical achievements

Supervision:

Master's thesis supervision:

- Klarenfjord, J. (2008). Nja, ja and aa - Data collection and analyses of cue phrases with focus on generation of responsives in dialogue systems. Master's thesis, KTH.
- Raux, J. (2013). Exploring text-to-scene feedback as an alternative for second language acquisition. Master's thesis, KTH.

PhD thesis supervision (current):

- Martin Johansson, assistant supervisor

Teaching:

- In charge of Applied phonetics (Fonetiska tillämpningar) at Stockholm University, 2011 and 2012.
- Lecturer at the Architecture of Language (Språkets arkitektur) at Stockholm University, 2011-2013.
- Lecturer at Introduction to Computational Linguistics (Introduktion till datorlingvistik) at Stockholm University, 2013.
- Supervisor at Degree Project in Computer Science, First Level (DD143X), 2013.

Pedagogical courses (12 hp):

- Forskarhandledning (LH207V), 3 hp, 2012.
- Lärande och undervisning (LH201V) 7,5 hp, 2011-2012.
- Applied pedagogy for Graduate Students, 1,5 hp, 2006

Peer-Reviewed Journals

2012   Skantze, G., & Hjalmarsson, A. Towards Incremental Speech Generation in Conversational Systems. Computer Speech & Language, 27(1), 243-262.

2011   Hjalmarsson, A., The additive effect of turn-taking cues in human and synthetic voice. Speech Communication, 53(1), (pp. 23-35).

2009   Wik, P., & Hjalmarsson, A. Embodied conversational agents in computer assisted language learning. Speech communication.

2008   Edlund, J., Gustafson, J., Heldner, M., & Hjalmarsson, A. Towards human-like spoken dialogue systems. Speech Communication, 50(8-9), (pp. 630-645).

Other Peer-Reviewed Publications

2013   Heldner, M., Hjalmarsson, A., & Edlund, J., Backchannel relevance spaces. In Prosody: Proceedings of XIth Conference (pp. 137-146). Tartu 2012.

2013   Skantze, G., Hjalmarsson, A., & Oertel, C., Exploring the effects of gaze and pauses in situated human-robot interaction. To be published in 14th Annual Meeting of the Special Interest Group on Discourse and Dialogue - SIGDial. Metz, France.

2013   Skantze, G., Oertel, C., & Hjalmarsson, A., User feedback in human-robot interaction: Prosody, gaze and timing. To be published in Proceedings of Interspeech.

2013   Strömbergsson, S., Hjalmarsson, A., Edlund, J., & House, D. (2013). Timing responses to questions in dialogue. In Proceedings of Interspeech 2013. Lyon, France.

2012   Edlund, J., Heldner, M., & Hjalmarsson, A., 3rd party observer gaze during backchannels. In Proceedings of the Interspeech 2012 Interdisciplinary Workshop on Feedback Behaviors in Dialog. Skamania Lodge, WA, USA.

2012   Edlund, J., & Hjalmarsson, A., Is it really worth it? Cost-based selection of system responses to speech-in-overlap. In Proceedings of the IVA 2012 workshop on Realtime Conversational Virtual Agents (RCVA 2012). Santa Crux, CA, USA.

2012   Edlund, J., Hjalmarsson, A., & Tånnander, C., Unconventional methods in perception experiments. In Proceedings of Nordic Prosody XI. Tartu, Estonia.

2012   Hjalmarsson, A., & Oertel, C., Gaze direction as a Back-Channel inviting Cue in Dialogue. In IVA 2012 workshop on Realtime Conversational Virtual Agents. Santa Cruz, CA, USA.

2012   Edlund, J., Alexandersson, S., Beskow, J., Gustavsson, L., Heldner, M., Hjalmarsson, A., Kallionen, P., & Marklund, E., Harnessing 3rd party observer gaze for a continuous measure of the appropriateness of a speaker change. In proceedings of LREC 2012. Istanbul, Turkey.

2011   Hjalmarsson, A., & Laskowski, K., Measuring final lengthening for speaker-change prediction. In Proceedings of Interspeech 2011. Florence, Italy.

2011   Heldner, M., Edlund, J., Hjalmarsson, A., & Laskowski, K., Very short utterances and timing in turn-taking. In Proceedings of Interspeech 2011. Florence, Italy.

2010   Hirschberg, J., Hjalmarsson, A., & Elhadad, N., "You're as Sick as You Sound" Using Computational Approaches for Modeling Speaker State to Gauge Illness and Recovery. In Neustein, A. (Ed.), Mobile Environments, Call Centers and Clinics, (pp. 305-322), Springer.

2010   Skantze, G., & Hjalmarsson, A., Towards Incremental Speech Generation in Dialogue Systems. In Proceedings of SIGdial. Tokyo, Japan.

2010   Hjalmarsson, A., The vocal intensity of turn-initial cue phrases and filled pauses in dialogue. In Proceedings of SIGdial. Tokyo, Japan.

2009   Beskow, J., Carlson, R., Edlund, J., Granström, B., Heldner, M., Hjalmarsson, A., & Skantze, G. Multimodal Interaction Control. In Waibel, A., & Stiefelhagen, R. (Eds.), Computers in the Human Interaction Loop (pp. 143-158). Berlin/Heidelberg: Springer.

2009   Hjalmarsson, A. On cue - additive effects of turn-regulating phenomena in dialogue. In Diaholmia.

2008   Hjalmarsson, A. Speaking without knowing what to say... or when to end. In Proceedings of SIGDial. Columbus, Ohio, USA.

2008   Hjalmarsson, A., & Edlund, J. Human-likeness in utterance generation: effects of variability. In Perception in Multimodal Dialogue Systems - Proceedings of the 4th IEEE Tutorial and Research Workshop on Perception and Interactive Technologies for Speech-Based Systems, PIT 2008, Kloster Irsee, Germany, June 16-18, (pp. 252-255). Berlin/Heidelberg: Springer

2007   Hjalmarsson, A., Wik, P., & Brusk, J. Dealing with DEAL: a dialogue system for conversation training. In Proceedings of SigDial (pp. 132-135). Antwerp, Belgium.

2007   Wik, P., Hjalmarsson, A., & Brusk, J. DEAL A Serious Game For CALL Practicing Conversational Skills In The Trade Domain. In Proceedings of SLATE 2007

2007   Brusk, J., Lager, T., Hjalmarsson, A., & Wik, P. DEAL Dialogue Management in SCXML for Believable Game Characters. In Proceedings of ACM Future Play 2007 (pp. 137-144).

2005   Hjalmarsson, A. Towards user modelling in conversational dialogue systems: A qualitative study of the dynamics of dialogue parameters. In Proceedings of Interspeech. Lisbon, Portugal.

Doctoral Thesis

2010   Hjalmarsson, A., Human interaction as a model for spoken dialogue system behaviour, Doctoral Thesis in Speech Communication, KTH, Stockholm, Sweden 2010

Honors and Awards

SIGDIAL 2010 BEST PAPER AWARD for "Towards Incremental Speech Generation in Dialogue Systems", Gabriel Skantze and Anna Hjalmarsson