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|  |  | Catherine HavasiLuminoso675 Massachusetts AveCambridge, MA 02139 - USAT: (617) 901-8577 E: havasi@luminoso.com |
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| Employment |  | **Luminoso**, Cambridge, Massachusetts USAChief Strategy Officer, February 2018 – PresentCo-founder and CEO, December 2010 – February 2018**Massachusetts Institute of Technology**, Cambridge, Massachusetts USAResearch Affiliate, MIT Media Lab, July 2013 – September 2016Research Scientist and Director of Digital Intuition, MIT Media Lab, May 2011 – July 2013  |
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| Education |  | **Brandeis University**, Waltham, Massachusetts USA Ph.D., Computer Science, June 2009* Thesis: Discovering Semantic Relations Using Singular Value Decomposition
* Adviser: Professor James Pustejovsky
* Areas of Study: Computational linguistics, machine learning, and lexical resources

**Massachusetts Institute of Technology**, Cambridge, Massachusetts USAPostdoc, MAS, July 2009 - May 2011Research Affiliate, March 2006 – July 2009M.Eng., Computer Science, Spring 2004* Thesis: Bayesian Modeling of Manner and Path Psychological Data
* Advisers: Professors Robert Berwick and Jesse Snedeker
* Areas of Study: Cognitive modeling, Bayesian learning, and child language development
* S.B., Computer Science and Computer Engineering, Spring 2003
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| Selected Publications |  | **[1]** Catherine Havasi, Robert Speer, James Pustejovsky, and Henry Lieberman. *Digital Intuition: Applying Common Sense Using Dimensionality Reduction*. IEEE Journal ofIntelligent Systems, July 2009. **[2]** Robert Speer, Catherine Havasi, and Henry Lieberman. *AnalogySpace: Reducing the dimensionality of common sense knowledge. Proceedings of AAAI 2008*, July 2008.**[3]** Catherine Havasi, Robert Speer, and Jason Alonso. *ConceptNet 3: a flexible, multi-lingual semantic network for common sense knowledge*. In Recent Advances in Natural Language Processing, Borovets, Bulgaria, September 2007.  |
| Additional Peer-Reviewed Publications |  | **[1]** Speer, Robert, Joshua Chin, and Catherine Havasi. "ConceptNet 5.5: An Open Multilingual Graph of General Knowledge." In AAAI, pp. 4444-4451. 2017.**[2]** Shafto, Carissa L., Catherine Havasi, and Jesse Snedeker. "On the plasticity of semantic generalizations: Children and adults modify their verb lexicalization biases in response to changing input." Developmental psychology 50, no. 3 (2014): 794.**[3]** Hayden, Kasia, Dan Novy, Catherine Havasi, Michael Bove, Santiago Alfaro, and Rob Speer. "Narratarium: An immersive storytelling environment." In International Conference on Human-Computer Interaction, pp. 536-540. Springer, Berlin, Heidelberg, 2013.**[4]** Havasi, Catherine, Erik Cambria, Björn Schuller, Bing Liu, and Haixun Wang. "Statistical Approaches to Concept-Level Sentiment Analysis." IEEE Intelligent Systems 28, no. 3 (2013): 0006-9.**[5]** Speer, Robert, and Catherine Havasi. "*ConceptNet 5: A large semantic network for relational knowledge*." In The People’s Web Meets NLP, pp. 161-176. Springer Berlin Heidelberg, 2013.**[6]** Speer, Robert, and Catherine Havasi. "*Representing General Relational Knowledge in ConceptNet 5*." In LREC, pp. 3679-3686. 2012.**[7]** Havasi, Catherine, Richard Borovoy, Boris Kizelshteyn, Polychronis Ypodimatopoulos, Jon Ferguson, Henry Holtzman, Andrew Lippman, Dan Schultz, Matthew Blackshaw, and Greg Elliott. "*The glass infrastructure: Using common sense to create a dynamic, place-based social information system.*" AI Magazine 33, no. 2 (2012): 91.**[8]** Dinakar, Karthik, Birago Jones, Catherine Havasi, Henry Lieberman, and Rosalind Picard. "*Common sense reasoning for detection, prevention, and mitigation of cyberbullying*." ACM Transactions on Interactive Intelligent Systems (TiiS) 2, no. 3 (2012): 18**[9]** Gold, Kevin, Catherine Havasi, Michael Anderson, and Kenneth C. Arnold. "*Comparing Matrix Decomposition Methods for Meta-Analysis and Reconstruction of Cognitive Neuroscience Results*." In FLAIRS Conference. 2011.**[10]** Havasi, Catherine, Robert Speer, and Justin Holmgren. "*Automated color selection using semantic knowledge*." Proceedings of AAAI CSK, Arlington, USA 2, no. 9 (2010).**[11]** Speer, Robert, Catherine Havasi, and Harshit Surana. "*Using Verbosity: Common Sense Data from Games with a Purpose*." In FLAIRS Conference. 2010.**[12]** Cambria, Erik, Robert Speer, Catherine Havasi, and Amir Hussain. "Senticnet: *A publicly available semantic resource for opinion mining*." Artificial Intelligence (2010): 14-18. **[13]** Speer, Robert H., Catherine Havasi, K. Nichole Treadway, and Henry Lieberman. "*Finding your way in a multi-dimensional semantic space with Luminoso*." In Proceedings of the 15th international conference on Intelligent user interfaces, pp. 385-388. ACM, 2010.**[14]** Speer, Robert, Catherine Havasi, Nichole Treadway, and Henry Lieberman. "*Visualizing common sense connections with Luminoso*." In Proceedings of the first international workshop on Intelligent visual interfaces for text analysis, pp. 9-12. ACM, 2010.**[15]** Havasi, Catherine, Jason B. Alonso, and Robert Speer. "*Reducing the Dimensionality of Data Streams using Common Sense*." In Collaboratively-Built Knowledge Sources and AI. 2010.**[16]** Hayden, Kasia, Dan Novy, Catherine Havasi, Michael Bove, Santiago Alfaro, and Rob Speer. "*Narratarium: An Immersive Storytelling Environment*." In HCI International 2013-Posters’ Extended Abstracts, pp. 536-540. Springer Berlin Heidelberg, 2013.**[17]** Alonso, Jason Bernardino, Kenneth C. Arnold, and Catherine Havasi. "*Envisioning a Robust, Scalable Metacognitive Architecture Built on Dimensionality Reduction*." In Metacognition for Robust Social Systems. 2010.**[18]** Speer, Rob, Kenneth Arnold, and Catherine Havasi. "*Divisi: Learning from semantic networks and sparse SVD." In Proc*. 9th Python in Science Conf.(SCIPY 2010). 2010.**[19]** Havasi, Catherine, Robert Speer, Kenneth C. Arnold, Henry Lieberman, Jason B. Alonso, and Jesse Moeller. "*Open Mind Common Sense: Crowd-sourcing for Common Sense*." In Collaboratively-Built Knowledge Sources and AI. 2010.**[20]** Catherine Havasi, Robert Speer and James Pustejovsky. *Coarse Word-Sense Disambiguation Using Common Sense*. Proceedings of the AAAI 2010 Symposium on Common Sense Knowledge.**[21]** Catherine Havasi, Robert Speer and Justin Holmgren. *Automated Color Selection**Using Semantic Knowledge*. To appear in the Proceedings of the AAAI 2010 Symposium on Common Sense Knowledge.**[22]** Erik Cambria, Robert Speer and Catherine Havasi. *SenticNet: a Publicly Available**Semantic Resource for Opinion Mining*. To appear in the Proceedings of the AAAI2010 Symposium on Common Sense Knowledge.**[23]** Catherine Havasi, Robert Speer, and Jason Alonso*. Reducing the Dimensionality of Data Streams using Common Sense*. Proceedings of the 2010 Workshop on Collaboratively-built Knowledge Sources and Artificial Intelligence. **[24]** Jason Alonso, Kenneth Arnold, and Catherine Havasi. *Envisioning a Robust, Scalable Metacognitive Architecture Build on Dimensionality Reduction*. Proceedings of2010 AAAI Workshop on Meta-Cognition.**[25]** Robert Speer, Catherine Havasi, and Harshit Surana *Using Verbosity: Common Sense Data from Games with a Purpose*. Proceedings of the 23rd International FLAIRS Conference, May 2010.**[26]** Robert Speer, Catherine Havasi, Nichole Treadway, and Henry Lieberman*. Finding Your Way in a Multi-dimensional Semantic Space with Luminoso*. In Proceedings ofIntelligent User Interfaces, January 2010.**[27]** Erik Cambria, Amir Hussain, Catherine Havasi, and Chris Eckl. *AffectiveSpace:**Blending Common Sense and Affective Knowledge to Perform Emotive Reasoning*. Workshop on Opinion Mining and Sentiment Analysis, November 2009.**[28]** Catherine Havasi, Robert Speer, and James Pustejovsky. *Automatically Suggesting Semantic Structure for a Generative Lexicon Ontology*. Proceedings of GenerativeLexicon, September 2009.**[29]** Catherine Havasi, Robert Speer, James Pustejovsky, and Henry Lieberman. *Digital**Intuition: Applying Common Sense Using Dimensionality Reduction.* IEEE Journal ofIntelligent Systems, July 2009.**[30]** Jason Alonso, Catherine Havasi, and Henry Lieberman. *PerspectiveSpace: Opinion**modeling with dimensionality reduction.* User Modeling, Adaption, and Personalization (UMAP), June 2009.**[31]** Robert Speer, Jayant Krishnamurthy, Catherine Havasi, Dustin Smith, KennethArnold, Henry Lieberman. *An interface for targeted collection of common sense knowl-**edge using a mixture model*. In Proceedings of Intelligent User Interfaces, February2009.**[32]** Catherine Havasi, Robert Speer, and Jason Alonso. *ConceptNet: A lexical resource**for common sense knowledge*. In Recent Advances in Natural Language Processing, Volume 5. John Benjamins Publishers, Amsterdam & Philadelphia, 2009.**[33]** Robert Speer, Catherine Havasi, and Henry Lieberman. *AnalogySpace: Reducing**the dimensionality of common sense knowledge*. Proceedings of AAAI 2008, July 2008.**[34]** Catherine Havasi, Robert Speer, and Jason Alonso. *ConceptNet 3: a flexible, multi-lingual semantic network for common sense knowledge*. In Recent Advances in NaturalLanguage Processing, Borovets, Bulgaria, September 2007.**[35]** Catherine Havasi, James Pustejovsky, and Anna Rumshisky. *An evaluation of the**Brandeis Semantic Ontology*. In Proceedings of the Fourth International Workshopon Generative Approaches to the Lexicon, Paris, France, 2007.**[36]** Ben Wellner, James Pustejovsky, Catherine Havasi, Roser Sauri and AnnaRumshisky. *Classification of Discourse Coherence Relations: An Exploratory Study**using Multiple Knowledge Sources*. In Proceedings of the Special Interest Group onDiscourse and Dialogue 2006, Sydney, Australia, 2006.**[37]** James Pustejovsky, Catherine Havasi, Jessica Littman, Roser Sauri, Anna Rumshisky, and Marc Verhagen. *Towards a generative lexical resource: The Brandeis**Semantic Ontology*. Proceedings of the Fifth Language Resource and Evaluation Conference, 2006.**[38]** Catherine Havasi, James Pustejovsky, and Marc Verhagen. *BULB: A Unified Lexical Browser*. Proceedings of the Fifth Language Resource and Evaluation Conference, 2006. **[39]** Anna Rumshisky, Patrick Hanks, Catherine Havasi, James Pustejovsky. *Constructing a Corpus-based Ontology using Model Bias*. Proceedings of The Florida Artificial Intelligence Research Society Conference, 2006.**[40]** Catherine Havasi and Jesse Snedeker. *Investigation of the Development and Plasticity of the Manner-Path Lexicalization Bias in English Speaking Adults and Children*. Proceedings of the International Association for the Study of Child Language, 2005.**[41]** Robert Speer and Catherine Havasi. *Meeting the Computer Halfway: Language Processing in the Artificial Language Lojban*. Proceedings of the Student Oxygen Workshop, 2005.**[42]** Catherine Havasi and Jesse Snedeker. *The Adaptability of the Manner-Path bias in**Children*. Proceedings of the BU Child Language Development Conference, 2004.**[43]** Catherine Havasi and Jesse Snedeker. *The Adaptability of Language Specific Verb Lexicalization Biases*. Proceedings of Cognitive Science Society Conference, 2004. |
| Awards and Etc. |   | * **Recent Advances in Natural Language Processing, Xerox award for best student paper on semantic processing,** 2007
* **NSF Graduate Research Fellowship**, 2004
* **First to use crowd-sourcing for artificial intelligence**
* **Guest Editor**: IEEE Intelligent Systems, ACM Transactions on Interactive Intelligent Systems, O'Reilly, Elsevier
* **Organizing committee, NAACL 2015**
* **Several technology patents**
* **Major non-academic speaking:** SXSW, TTI Vanguard, TMRE, State Department, ACT-IAC, Strange Loop, Digital Shoreditch **Upcoming:** Poptech, World Economic Forum Academy
* **Founding organizer committee member of Boston Data Week**
* **Numerous academic conference and workshop chairs, program committees, and reveiws**
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| Major Non-profit work |  | **Learning Unlimited**A non-profit which enables college students to run outreach programs for middle and high school students.* Founding member, board of directors Spring 2009 – December 2011
* Director of Development and Corporate Relations Spring 2009 – December 2010
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