Personal Details

Name:	Michael Elhadad
Date and place of birth:	28 Jul 1963, Meknes, Morocco
Email:	elhadad@cs.bgu.ac.il
URL:	http://www.cs.bgu.ac.il/~elhadad/
ORCID:	https://orcid.org/0000-0002-5629-2351
ISI Word of Science:	https://www.webofscience.com/wos/author/record/AIB-3614-2022
Address at Work :	Department of Computer Science, BGU, Beer-Sheva 84105
Telephone at Work:	(08) 6477874
Address at Home:	Nitzana 12, Beer Sheva, 84748

Education

Ecole Centrale Paris, France.
Diplôme d'ingénieur, Applied Mathematics, 1985.

M. Sc., Computer Science, 1986.
Columbia University, Department of Computer Science.

Ph. D., Computer Science, 1992.
Columbia University, Department of Computer Science.
Advisor: Prof. Kathleen McKeown.
Title of thesis: "Using Argumentation to Control Lexical Choice: A Functional Unification Implementation" (Cited by 200 Google Scholar)

Employment History

- October 2010-present: Associate Professor, Ben Gurion University, Department of Computer Science.

- April 2000-Oct 2010: Senior Lecturer, Ben Gurion University, Department of Computer Science.

- 1997-2022: R&D manager, Dalet. I am one of the six founders (in 1991) of the Dalet group. I was responsible for R&D at Dalet. Dalet (www.dalet.com) is a world leading software provider in the professional broadcasting market for digital audio and TV automation, newsroom software and Internet broadcasting. Dalet has products installed in more than 2,000 stations worldwide, including BBC, NPR, ABC, NBC, FOX or CBC. As R&D manager, I managed a team of about 250 software engineers worldwide.

- 1994-2000: Lecturer, Ben-Gurion University of the Negev. Dept of Mathematics and Computer Science.

- 1992-1994: Postdoc, Ben-Gurion University of the Negev.

- 1985-1992: Research Assistant, Columbia University, Dept of Computer Science.

Professional Activities

(a) Editor of scientific or professional journal:

Transactions of the Association for Computational Linguistics, MIT Press, Editorial Board, since 2020.
Computational Linguistics, MIT Press, Editorial Board, 1999–2001.

Area Chair of Recent Conferences: ARR (ACL Rolling Review), ACL 2023, ACL 2022, EMNLP 2022, EMNLP 2021, NAACL 2021 Area Chair, Outstanding Area Chair award EMNLP 2020, EMNLP 2019 (Senior Area Chair), IJCAI 2019 (Senior Area Chair)

Reviewer of Recent Conferences: ACL 2021, COLING 2020, ACL 2020, ACL 2019, ACL 2018, NAACL 2018, EMNLP 2018, LREC 2018, COLING 2018, ACL 2016, LREC 2016, EMNLP 2015, ACL 2015, NAACL 2015, ACL 2014, COLING 2014, EMNLP 2014, ACL 2013, EMNLP 2013, ACL-HLT 2012, EMNLP 2012, EMNLP 2011, ACL-HLT 2011, ACL-HLT 2010, EMNLP 2010, ISCOL 2010, NAACL-HLT 2009, ACL-IJCNLP 2009, EMNLP 2009, EACL 2009, ACL 2008, NAACL 2008, EMNLP 2008, ACL 2007, NAACL 2007, COLING 2007, ENLG 2007, ACL 2006.

(b) Organization of Academic Conferences:

First International Conference on Natural Language Generation (INLG'2000), Mitzpe Ramon, Israel, Program Chair and Organizer (http://www.cs.bgu.ac.il/~nlg2000) (about 200 participants).

AAAI Spring Symposium Series 1998, Symposium on Text Summarization, Organizing committee.

(c) Positions in professional/scientific societies:

Elected Secretary of the ACL SIGGEN group (Association for Computational Linguistics — Special Interest Group on Text Generation) — 1993–1998

Educational activities:

(a) Courses Taught:

Natural Language Processing
Advanced Topics in Natural Language Processing
Systems Programming (fully designed the course content 2000)
Principles of Programming Languages (full reform of the course content 2017)
Computational Linguistics, Natural Language Processing
Software Engineering

Advanced Topics in Artificial Intelligence
Advanced Topics on Programming Languages
Computer Architecture and Assembler
Operating Systems
Advanced Topics in Operating Systems
Introduction to Computer Science
Data Structures.

(b) Research Students:

Graduated PhD:

1. Yael Netzer (1998 - Graduated 2006): Application of Natural Language Generation to Augmentative Communication: Designing Efficient Input Definition Languages for Autistic Children (Adjoint Lecturer BGU)

2. Meni Adler (2002 - Graduated 2008): Hebrew Morphological Disambiguation: An Unsupervised Stochastic Word-based Approach (Adjoint Lecturer BGU)

3. Yoav Goldberg (2005 - Graduated 2011): Syntactic Parsing in Semitic Languages (Professor at Bar-Ilan University)

4. Rafi Cohen (2008 - Graduated 2013): Analysis of Electronic Health Records in Hebrew (VP Research at Chorus.ai / acquired by ZoomInfo 2022).

5. Tal Baumel (2014 - Graduated 2018): Abstractive Summarization (Microsoft Research)

6. Jumana Nassour: (2014 - Graduated 2020): Semantic Analysis of Scientific Articles: Building Concept Maps with Neural Models (Google Research)

Current PhD Students:

1. Ben Eyal: *Text to SQL - Compositional Cross-lingual Semantic Parsing*, since 2018.

Current MSc. Thesis:

1. Amir Bachar: *Data Augmentation for Visual Question Answering*, since 2021

Completed MSc. Thesis:

1. Nitzan Cohen: *Checking Presuppositions in Visual Question Answering*, 2023.

2. Roy Eisenstadt: *Neural Data to Text Generation*, 2022.

3. Yarin Kuper: *Visual Question Answering*, 2021.

4. Tair Hakman: *Evaluation Methods for Visual Question Answering*, 2021.

5. Rina Galperin: *Entity Linking in Hebrew Medical Text*, 2021.

6. Yonatan Biton: *Natural Language Processing for Hebrew Medical Information*, graduated 2020.

7. Asi Sheffer: *Deep Learning-based Scene Description*, graduated 2018.

8. Dan Schulman: *Question-Answering in a Domestic Robotic Context*, graduated 2018.

9. Matan Eyal: *Question-Answering Evaluation Methods for Abstractive Summarization*, graduated 2018.

10. Ben Eyal: *Frame-semantics for Hebrew*, graduated 2018.

11. Tal Achimeir: *Generating Text from Images*, graduated 2016.

12. Tal Baumel: *Query Chain Focused Summarization*, graduated 2014.

13. Iddo Aviram: *Statistical Topic Models*, graduated 2013.

14. Gabi Stanowski: *Text Paraphrasing Models in Hebrew*, graduated 2012.

15. Masha Igra: *Sentiment Analysis using Topic Models*, graduated 2012.

16. Yonatan Lev: *Detecting Spelling and Syntax Errors in Hebrew*, graduated 2012.

17. Eran Tomer: *Automatic Vocalization of Hebrew Text*, graduated 2011.

18. Nadav Bin-nun: *Generation of Cross-word Problems*, 2009.

19. Ziv Ben-Eliahu: *Composite Business Process Models with Error Handling using BPMN*, 2009.

20. David Gabay: *Automatic Authorship Recognition in Hebrew*, 2008.

21. Oren Hazai: *Text Classification using Cohesion Models*, 2005.

22. Ofer Biller: *Semantic Input Specification for Natural Language Generation*, 2004.

23. Naama Ben Mordechai: *Named Entity Recognition in Hebrew*, 2004.

24. Gennadiy Lemberski: *Named Entity Recognition in Hebrew*, 2002.

25. Meni Adler: *Hebrew Morphological analysis*, 2001.

26. Reuven Yagel: *A Corba-based Testing Platform for Distributed Programming*, 2000.

27. Barak Bar-Oryon: *An Optimizing Compiler for FUF*, 1999.

28. Mark Kharitonov: *Design and Implementation of a Compiler for FUF — A Functional Unification Formalism*, 1998

29. Yael Netzer: *Hebrew Generation Grammar* 1998

30. Regina Barzilay: *Automatic Text Summarization* 1998 (now full professor at MIT)

31. Marina Markus: *Development of Visual Languages* 1998

32. Rinat Gedalia: *Automatic Business Letter Composition* 1997

Awards, Citations, Honors, Fellowships

1. Outstanding Area Chair, EMNLP 2020 Summarization Track.

2. Outstanding Reviewer, ACL 2019.

3. Best Student Paper Award ACL-SRW 2012: Rafi Cohen, Yoav Goldberg and **M. Elhadad**, "Domain Adaptation of a Dependency Parser with a Class-Class Selectional Preference Model"

4. Best Paper Award RECOMB 2011: Shay Zakov, Yoav Goldberg, **M. Elhadad**, and Michal Ziv-Ukelson, "Rich parameterization improves RNA structure prediction," Proceedings of the 15th Annual International Conference on Research in Computational Molecular Biology, 2011

5. The Ralph Selig Career Development Chair in Information Theory, 1998–1999, Ben Gurion University.

6. Awarded Wolf Fund Postdoctoral Prize — 1993–1994.

7. Fully supported research fellow in Computer Science at Columbia University, 1986–1992.

8. Lurcy Foundation fellowship, 20K$, 1985-86. Provided full-year support for graduate studies.

Scientific Publications

(a) h-index 8 (ISI), 29 (GS), I10-index 60 (GS)

(b) Total number of citations 209 (ISI), 193 excluding self-citation (ISI), 5,559 (Google Scholar)

(c) Refereed articles in scientific journals and books:

1. K. McKeown^{PI}, **M. Elhadad**^{S}, Y. Fukumoto^S, J. Lim^S, C. Lombardi^S, J. Robin^S, and F. Smadja^S. "Natural Language Generation in COMET." In *Current Research in Language Generation,* C. Mellish, R. Dale, and M. Zock, editors, Academic Press, London, GB, 1990, pp.103–139.
(Cited by 90 Google Scholar)

2. K. McKeown^{PI}and **M. Elhadad**^{S}, "A contrastive study of Functional Unification Grammar for surface language generation: a case study in choice of connectives." In *Natural Language Generation in Artificial Intelligence and Computational Linguistics* C. Paris, W. Swartout and W. Mann editors, Kluwer Academic Publisher, 1991, pp.351–396.
(Cited by 37 Google Scholar)

3. **M. Elhadad**^{C}and J. Robin^C, "Controlling Content Realization with Functional Unification Grammars", In *Automated Natural Language Generation*, Springer Verlag, 1992, pp.89–104.
(Cited by 7 ISI, 86 Google Scholar)

4. **M. Elhadad**[PI], "Using Argumentation in Text Generation", *Journal of Pragmatics*, 24 (1995) 189–220, North Holland, Elsevier. B.
(2014 ISI Impact factor 0.831, Q2, Cited by 21 ISI, 69 Google Scholar)

5. **M. Elhadad**[PI], "Lexical Choice for Complex Noun Phrases: Structure, Modifiers, and Determiners," *Journal of Machine Translation*, Impact Factor 2.9, Q2, Kluwer (now Springer), 11 (1996) 159–184.
(Cited by 9 Google Scholar)

6. **M. Elhadad**[S], K. McKeown[PI] and J. Robin[S], "Lexical Choice and Floating Constraints in Text Generation", *Computational Linguistics*, MIT Press, 23 (1997) 195–239. A*
(2009 ISI Impact Factor: 2.212, Q1, Cited by 13 ISI, 82 Google Scholar)

7. G. Trzewik[S], E. Gudes[PI], A. Meisels[PI], G. Solotorevsky[S], **M. Elhadad**[C], "TRAPS-A Time Dependent Resource Allocation Language", in *International Journal of Expert Systems 10 (1)*, 53-91, B
(ISI Impact Factor 0.154, Q4, Cited by 5 Google Scholar)

8. M. Balaban[PI] and **M. Elhadad**[PI], "On the Need for Visual Formalisms in Computer Music," *Leonardo Journal*, MIT Press, 32 (1999), No. 2, 127–134. A
(2007 ISI Impact Factor: 1.094 - as part of Computer Music Journal, Cited by 7 Google Scholar)

9. R. Barzilay[S] and **M. Elhadad**[PI], "Using Lexical Chains for Text Summarization", in *Advances in Automatic Text Summarization*, Inderjeet Mani and Mark T. Maybury (eds.), MIT Press, 1999.
(**Cited by 1,569** Google Scholar)

10. M. Balaban[PI], E. Barzilay[S] and **M. Elhadad**[PI], "Abstraction as a Means for End-User Computing in Creative Applications," in *IEEE Transactions on Systems, Man, and Cybernetics, Part A*, Vol.32, No.6, Nov.2002, 640–653, A
(ISI Impact Factor: 2.183, Q1, Cited 4 ISI, Google Scholar 11)

11. **M. Elhadad**[PI], A. Sturm[PI] and M. Balaban[PI], "Effective Business Process Outsourcing: The Prosero Approach," in *International Journal of Interoperability in Business Information Systems (IBIS)*, Vol.3, No.1, Jan.2008. B
(Cited by 20 Google Scholar)

12. Yoav Goldberg[S] and **M. Elhadad**[PI], "Identification of Transliterated Foreign Words in Hebrew Script," in *Computational Linguistics and Intelligent Text Processing*, Lecture Notes in Computer Science, Springer, Volume 4919, 466–477, 2008.
(Cited by 4 ISI, 27 Google Scholar)

13. Yael Netzer[C], David Gabay[S], Meni Adler[C], Yoav Goldberg[S], and **M. Elhadad**[PI], "Ontology Evalutation through Text Classification," in L. Chen et al. (Eds.): APWeb and WAIM, LNCS

5731, pp. 210-221, Springer-Verlag, Berlin Heidelberg, 2009
(Cited by 7 ISI, 31 Google Scholar)

14. **M. Elhadad**[PI], M. Adler[C], Y. Netzer[C], D. Gabay[S], Y. Goldberg[S], "Automatic Evaluation of Search Ontologies in the Entertainment Domain using Text Classification," in "Applied Semantic Technologies: Using Semantics in Intelligent Information Processing," Taylor and Francis, 2011
(Cited by 11 Google Scholar)

15. **M. Elhadad**[C], "Book Review: Natural Language Processing with Python (Bird et al)," in *Computational Linguistics*, MIT Press, 36, A*
(Q1 2009 ISI Impact Factor: 2.212, Cited by 2 ISI).

*16. Raphael Cohen[S], Avitan Gefen[S], **M. Elhadad**[PI] and Ohad S. Birk[PI]. "Clinical Synopsis Search in OMIM" in BMC Bioinformatics 2011, Volume 12. A*
(Impact factor: 3.03, Classified "Highly Accessed" by PubmedCentral, Cited by 8 ISI, 18 Google Scholar)

*17. Shay Zakov[S], Yoav Goldberg[S], **M. Elhadad**[PI], and Michal Ziv-Ukelson[PI], "Rich parameterization improves RNA structure prediction," in Journal of Computational Biology. November 2011: 1525-1542 (first appeared in RECOMB 2011: Proceedings of the 15th Annual International Conference on Research in Computational Molecular Biology, 2011 where it received Best Paper Award), A*
(Cited by 11 ISI, 86 Google Scholar)

*18. Raphael Cohen[S], Noemie Elhadad[PI] and **M. Elhadad**[PI], "Redundancy in Electronic Health Record Corpora: Analysis, Impact on Text Mining Performance and Mitigation Strategies" in BMC Bioinformatics 2013, 14:10. A*
(Impact factor: 3.233, Q1, Cited by 41 ISI, 100 Google Scholar)

*19. Yoav Goldberg[S], **M. Elhadad**[PI], "Word-segmentation, Unknown-word Resolution and Morphological Agreement in a Hebrew Parsing System", in Computational Linguistics, 2013, MIT Press. A*
(Impact factor 2.212, Q1, Cited by 12 ISI, 33 Google Scholar)

*20. Raphael Cohen[S], **M. Elhadad**[PI] and Ohad S. Birk[PI]. "Analysis of free online physician advice services," PLOS ONE, March 2013. A
(Impact factor: 3.234, Q1, Cited by 4 ISI, 14 Google Scholar).

*21. Raphael Cohen[S], Iddo Aviram[S], Noemie Elhadad[PI], **M. Elhadad**[PI], "Redundancy-Aware Topic Modeling for Patient Record Notes," PLOS ONE (2014), A
(Impact factor: 3.234, Q1, Cited by 33 ISI, 70 Google Scholar).

*22. Tal Baumel[S], **M. Elhadad**[PI], "A Survey of Neural Models for Abstractive Summarization," Chapter in *Automatic Text Extraction* (2018), Marina Litvak and Natalia Vanetik, Editors, World

Scientific.

*23. J Nassour[S], **M Elhadad**[PI], A Sturm[PI], E Yu, "Evaluating the comprehension of means-ends maps," in *Software and Systems Modeling*, 2019,18:3, pp.1885-1903, Springer. A*
(Impact factor: 2.660, Q1, 1 Google Scholar)

*24. J. Nassour[S], D. Leykin, **M. Elhadad**[PI], and O. Cohen, "Computational Text Analysis of a Scientific Resilience Management Corpus: Environmental Insights and Implications," Journal of Environmental Informatics, 2019. A
(Impact factor: 4.521, Cited by 5 ISI, 8 Google Scholar)

*25 Y Bitton[S], R Cohen, T Schifter, E Bachmat[PI], **M Elhadad**[PI], N Elhadad[PI] "Cross-lingual Unified Medical Language System entity linking in online health communities," Journal of the American Medical Informatics Association 27 (10), 1585-1592, 2020. A*
(Impact factor: 4.112, Q1, Cited by 3 Google Scholar)

(d) Refereed Articles in Conference Proceedings

1. **M. Elhadad**[S], Doree Duncan Seligmann[S], Steven Feiner[PI], Kathleen R McKeown[PI], "A common intention description language for interactive multi-media systems", A new generation of intelligent interfaces in *Proceedings of the IJCAI89 workshop on intelligent interfaces*, p.46-51,
(Cited by 20 Google Scholar, no acceptance rate published)

2. **M. Elhadad**[S]and K. McKeown[PI] "Generating Connectives," *Proceedings of COLING 1990*, Helsinki, Finland. A
(Cited by 90 Google Scholar, Acceptance rate 30%)

3. **M. Elhadad**[PI] "Types in Functional Unification Grammar." In *Proceedings of ACL'90*, Pittsburgh, PA, 1990. A*
(Cited by 2 ISI, 48 Google Scholar, Acceptance rate 20%)

4. **M. Elhadad**[PI] "Generating Adjectives to Express the Speaker's Argumentative Intent," *Proceedings of AAAI'91*, Anaheim, CA, 1991. A*
(Cited by 22 Google Scholar, Acceptance rate 24%)

5. **M. Elhadad**[S], S. Feiner[PI], K. McKeown[PI]and D. Seligmann[S], "Generating Customized Text and Graphics in the COMET Explanation Testbed," *Proceedings of the 1991 Winter Simulation Conference, WSC 91*, Phoenix, AZ, 1991. B
(Cited by 1 ISI, 9 Google Scholar, no acceptance rate published)

6. **M. Elhadad**[PI]. "Generating Coherent Argumentative Paragraphs," *Proceedings of COLING 1992*, Nantes, France. A

(Cited by 15 Google Scholar, acceptance rate 30%)

7. **M. Elhadad**[PI] "Generating Argumentative Judgment Determiners," *Proceedings of AAAI'93*, pp.344–349. A*
(Cited by 2 ISI, 9 Google Scholar, Acceptance rate 24%)

8. A. Tulloch[C] and **M. Elhadad**[C]. "What makes Linguistic Realization Difficult," *Proceedings of the Australian Conference on AI IA96*, 1996. B (No acceptance rate published)

9. **M. Elhadad**[PI] and R. Barzilay[S], "Using lexical chains for text summarization," *Proceedings of the International Workshop on Scalable Text Summarization, ISTS-ACL'97*, Madrid. A
(Cited by 1569 Google Scholar, no acceptance rate published)

10. Hongyan Jing[S], Regina Barzilay[S], Kathleen McKeown[PI], and **M. Elhadad**[PI], "Summarization Evaluation Methods: Experiments and Analysis," *Proceedings of the AAAI Symposium on Intelligent Summarization*, March 23–25, 1998, Stanford University, CA., A
(Cited by 302 Google Scholar, no acceptance rate published)

11. **M. Elhadad**[PI] and Y. Netzer-Dahan[S], "Generating Determiners and Quantifiers in Hebrew", *Proceedings of the ACL Workshop on Computational Treatment of Semitic Languages*, Montreal, 1998. A
(Cited by 4 Google Scholar, no acceptance rate published)

12. **M. Elhadad**[PI] and Y. Netzer-Dahan[S], "Generation of Noun Compounds in Hebrew: Can Syntactic Knowledge be Fully Encapsulated?" *Proceedings of INLG'98*, Niagara on the Lake, Ontario. B
(Cited by 5 Google Scholar, acceptance rate 40%)

13. R. Barzilay[S], K. McKeown[PI] and **M. Elhadad**[PI], "Information Fusion in the Context of Multi-Document Summarization," *Proceedings of ACL'99*, Maryland, 1999, 550–557, A*
(Cited by 527 Google Scholar, Acceptance rate 25%)

14. Y. Netzer-Dahan[S] and **M. Elhadad**[PI], "Bilingual Hebrew-English Generation of Possessives and Partitives: Raising the Input Abstraction Level," *Proceedings of ACL'99*, Maryland, 1999, 144–151. A*
(Cited by 2 Google Scholar, Acceptance rate 25%)

15. Hongyan Jing[S], Yael Dahan Netzer[S], **M. Elhadad**[PI] and Kathy McKeown[PI], "Integrating a Large-Scale, Reusable Lexicon with a Natural Language Generator" *Proceedings of INLG'2000*, Mitzpe Ramon, 2000, 140–148. B
(Cited by 10 Google Scholar, acceptance rate 40%)

16. **M. Elhadad**[PI], Yael Netzer[S], Reginal Barzilay[S] and Kathleen McKeown[PI], "Ordering Circumstantials for Multi-document Summarization" Presented at *BISFAI'01*, June 2001. C

(Cited by 3 Google Scholar, no acceptance rate published)

17. Ofer Biller[S], **M. Elhadad**[PI], Yael Netzer[C], "Interactive Authoring of Logical Forms for Multilingual Generation", in Proceedings of the European Workshop on Natural Language Generation, 2005, Aberdeen. B
(Cited by 12 Google Scholar, no acceptance rate published)

18. Meni Adler[S] and **M. Elhadad**[PI], "An Unsupervised Morpheme-Based HMM for Hebrew Morphological Disambiguation", in Proceedings of COLING-ACL 2006, Sydney, Australia. A*
(Cited by 9 ISI, 89 Google Scholar, Acceptance rate 23%)

19. Yoav Goldberg[S], Meni Adler[S], and **M. Elhadad**[PI], "Noun Phrase Chunking in Hebrew Influence of Lexical and Morphological Features", in Proceedings of COLING-ACL 2006, Sidney, Australia. A*
(Cited by 18 Google Scholar, Acceptance rate 23%)

20. Yael Netzer[C], Ofer Biller[PI], **M. Elhadad**[PI] and Yoav Goldberg[S], "Generating Language from BlissSymbols Using Semantic Authoring", in Proceedings of ISAAC 2006, Germany. C
(Cited by 4 Google Scholar, no acceptance rate published)

21. Yael Netzer[C] and **M. Elhadad**[C], "Using Semantic Authoring for Blissymbols Communication Boards," in Proceedings of Human Language Technology Conference of the North American Chapter of the Association of Computational Linguistics, New York, USA, June 4-9, 2006. A*
(Cited by 11 Google Scholar, Acceptance rate 24%)

22. Yoav Goldberg[S] and **M. Elhadad**[PI], "SVM Model Tampering and Anchored Learning: A Case Study in Hebrew NP Chunking", in Proceedings of ACL 2007, Prague, Czech Republic. A*
(Cited by 12 Google Scholar, Acceptance rate 22.3%)

23. Yael Netzer[C], Meni Adler[S], David Gabay[S], **M. Elhadad**[PI], "Can you tag the modal? You should", in Proceedings of the ACL 2007 Workshop on Semitic Languages Processing, Prague, Czech Republic. B
(Cited by 12 Google Scholar, no acceptance rate published)

24. Meni Adler[S], Yoav Goldberg[S] and **M. Elhadad**[PI], "Unsupervised Lexicon-Based Resolution of Unknown Words for Full Morpholological Analysis," in Proceedings of the ACL 2008 Conference, Ohio State University. A*
(Cited by 26 Google Scholar, Acceptance rate 25%)

25. Yoav Goldberg[S], Meni Adler[S] and **M. Elhadad**[PI], "EM Can Find Pretty Good HMM POS-Taggers (When Given a Good Start)," in Proceedings of the ACL 2008 Conference, Ohio State University. A*
(Cited by 86 Google Scholar, Acceptance rate 25%)

26. Yoav Goldberg[S] and **M. Elhadad**[PI], "splitSVM: Fast, Space-Efficient, non-Heuristic, Polynomial Kernel Computation for NLP Applications," in Proceedings of the ACL 2008 Conference, Ohio State University. A*
(Cited by 90 Google Scholar, Acceptance rate 25%)

27. Meni Adler[S], Yael Netzer[C], David Gabay[S], Yoav Goldberg[S] and **M. Elhadad**[PI], "Tagging a Hebrew Corpus: The Case of Participles," in Proceeding of the LREC 2008 Conference, Marrakesh, Morroco. B
(Cited by 1 ISI, 11 Google Scholar, acceptance rate 60%)

28. Yael Netzer[C], Meni Adler[S] and **M. Elhadad**[PI], "Word Prediction in Hebrew: Preliminary and Surprising Results," in Proceedings of the ISAAC 2008 Conference, Montreal C
(Cited by 5 Google Scholar, no acceptance rate published).

29. Ziv Ben-Eliahu[S], David Gabay[S] and **M. Elhadad**[PI], "Using Wikipedia Links to Construct Word Segmentation Corpora," in Proceedings of the WIKIAI-08 Workshop, AAAI-2008 Conference, Chicago. B
(Cited by 8 Google Scholar, no acceptance rate published)

30. Yoav Goldberg[S], Reut Tsarfaty[C], Meni Adler[S] and **M. Elhadad**[PI], "Enhancing Unlexicalized Parsing Performance using a Wide Coverage Lexicon, Fuzzy Tag-set Mapping, and EM-HMM-based Lexical Probabilities," EACL 2009, Athens, Greece. A
(Cited by 34 Google Scholar, Acceptance rate 28%)

31. Yael Netzer[C], David Gabay[S], Yoav Goldberg[S] and **M. Elhadad**[PI], "Gaiku : Generating Haiku with Word Associations Norms," in NAACL Workshop on Computational Approaches to Linguistic Creativity, 2009, A
(Cited by 95 Google Scholar, acceptance rate 50%)

32. Yoav Goldberg[S] and **M. Elhadad**[PI], "On the Role of Lexical Features for Sequence Labeling," EMNLP 2009, Singapore. A*
(Cited by 15 Google Scholar, Acceptance rate 34%)

33. Yoav Goldberg[S] and **M. Elhadad**[PI], "Hebrew Dependency Parsing: Initial Results," IWPT 2009, Paris. B
(Cited by 27 Google Scholar,)

34. Raphael Cohen[S] and **M. Elhadad**[PI], "Rule Based knowledge integration method for medication information extraction," I2B2 2009, 3rd I2B2 Shared-Task Challenges in Natural Language Processing for Clinical Data Medication Extraction Challenge. B

35. Yoav Goldberg[S] and **M. Elhadad**[PI], "An Efficient Algorithm for Easy-First Non-Directional Dependency Parsing," NAACL 2010, Los Angeles. A

(Cited by 239 Google Scholar, Acceptance rate 31%)

36. Yoav Goldberg[S] and **M. Elhadad**[PI], "Easy-First Dependency Parsing of Modern Hebrew," SPMRL 2010, an NAACL/HLT workshop on Statistical Parsing of Morphologically Rich Languages, Los Angeles. B
(Cited by 37 Google Scholar, no acceptance rate published)

37. Yoav Goldberg[S] and **M. Elhadad**[PI], "Inspecting the Structural Biases of Dependency Parsing Algorithms," CoNLL 2010, Uppsala, Sweden. A
(Cited by 14 Google Scholar, Acceptance rate 31%)

*38. Shay Zakov[S], Yoav Goldberg[S], **M. Elhadad**[PI] and Michal Ziv-Ukelson[PI], "Rich Parameterization Improves RNA Structure Prediction," RECOMB-2011 A*
(Best paper award, Cited by 86 Google Scholar, Acceptance rate 28%)

*39. Yoav Goldberg[S] and **M. Elhadad**[PI], "Joint Hebrew Segmentation and Parsing using a PCFG-LA Lattice Parser" ACL-2011 (Short Paper), Portland, Oregon. A*
(Cited by 27 Google Scholar, Acceptance rate 26%)

*40. Rafi Cohen[S], Yoav Goldberg[S] and **M. Elhadad**[PI], "Domain Adaptation of a Dependency Parser with a Class-Class Selectional Preference Model", ACL-SRW 2012, Korea (Best Student Paper Award). A
(Cited by 14 Google Scholar, Acceptance rate 45%)

*41. Rafi Cohen[S] and **M. Elhadad**[PI], "Syntactic Dependency Parsers for Biomedical-NLP," AMIA Proceedings 2012, pp121-128, Chicago, Illinois. A
(Cited by 9 Google Scholar)

*42. Rafi Cohen[S] and **M. Elhadad**[PI], "Effect of Out Of Vocabulary terms on inferring eligibility criteria for a retrospective study in Hebrew EHR," Proceedings of the 2013 Workshop on Biomedical Natural Language Processing (BioNLP 2013), pages 116-119, Sofia, Bulgaria, August 4-9 2013. B
(Cited by 2 Google Scholar, no acceptance rate published)

*43. **M. Elhadad**[C], Sabino Miranda-Jimenez[C], Josef Steinberger[C], and George Giannakopoulos[C] "Multi-document multilingual summarization corpus preparation, Part 2: Czech, Hebrew and Spanish" Proceedings of the 2013 MultiLing Workshop on Multi-Lingual Multi-document Summarization, ACL, Sofia, Bulgaria, August 2013. B
(Cited by 14 Google Scholar, no acceptance rate published)

*44. Tal Baumel[S], Rafi Cohen[C] and **M. Elhadad**[PI], "Query Chain Focused Summarization," ACL 2014, Baltimore, Maryland. A*
(Cited by 8 ISI, 23 Google Scholar, Acceptance rate 26%)

*45. Tal Baumel[S], Rafi Cohen[C] and **M. Elhadad**[PI], "Topic Concentration in Query Focused Summarization Datasets," AAAI 2016, Phoenix, Arizona. A*
(Cited by 11 ISI, 26 Google Scholar, Acceptance rate 26%)

*46. Avi Hayoun[S], and **M. Elhadad**[PI], "The Hebrew FrameNet," In Proceedings of The 10th Language Resources and Evaluation Conference, LREC 2016. Portoroz, Slovenia. B
(Cited by 1 ISI, 13 Google Scholar, Acceptance rate 26%)

*47. T. Baumel[S], R. Cohen[S], **M. Elhadad**[PI], "Sentence Embedding Evaluation Using Pyramid Annotation," ACL 2016, 1st Workshop on Evaluating Vector Space Representations for NLP, pages 145-149, Berlin, Germany, B
(Cited by 5 Google Scholar, Acceptance rate 50%)

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(Cited by 81 Google Scholar, Acceptance rate 22.6%)

*51. B Eyal[S], **M Elhadad**, "Building a Hebrew Semantic Role Labeling Lexical Resource from Parallel Movie Subtitles," In Proceedings of LREC The 12th Language Resources and Evaluation Conference, pp. 5934-5942. 2020. B
(Acceptance rate 60%)

*52. R. Eisenstadt[S], **M Elhadad**, "Neural Micro-Planning for Data to Text Generation Produces more Cohesive Text," In DT4TP: Discourse Theories for Text Planning, Workshop at the International Conference on Natural Language Generation INLG 2020. B
(Acceptance rate 31.1%)

*53. Y Bitton[S], G Stanowski, R Schwartz, **M Elhadad**, "Automatic Generation of Contrast Sets from Scene Graphs:Probing the Compositional Consistency of GQA," NAACL 2021, Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, pages 94105 June 611, 2021. A
(Cited by 16 Google Scholar, Acceptance rate 22%)

*54. Yonatan Bitton[S], Gabriel Stanovsky, **Michael Elhadad**, Roy Schwartz, "Data Efficient Masked Language Modeling for Vision and Language," Findings of the Association for Computational Linguistics: EMNLP 2021, pages 3013-3028 November 711, 2021. A*
(Cited by 10 Google Scholar, Acceptance rate 30%)

*55. R Eisenstadt[S], **M Elhadad**, "Evaluation Guidelines to Deal with Implicit Phenomena to Assess Factuality in Data-to-Text Generation," Proceedings of the 1st Workshop on Understanding Implicit and Underspecified Language, ACL Sept. 2021, B
(Acceptance rate not published)

*56. R Galperin[S], Shachar Schnapp[S], **M Elhadad**, "Cross-Lingual UMLS Named Entity Linking using UMLS Dictionary Fine-Tuning," Proceedings of the ACL (Findings), May. 2022, A*
(Acceptance rate 30%)

Research Grants

Israel Science Ministry — Infrastructure Grant, with Prof Ido Dagan, Bar-Ilan University, Exploratory Search and Summarization using Textual Entailment, 2012-2015, NIS 1M (co-PI)

Israel Science Foundation — Syntactic Parsing in Hebrew, 2011-2015, NIS 1M (PI)

Israel Science Ministry — Technology and Halacha program: Semantic Search in Halachic Sources, 2010, NIS 80K. (PI)

BGU Deutsche Telekom Laboratories – SeReCo: Security Requirements Combiner and Assessor, 2009-2010, US$0.6M (PI)

BGU Deutsche Telekom Laboratories – Smart Search: Summarization of Search Results using Ontological Knowledge, 2008-2009, US$0.5M (PI)

BGU Deutsche Telekom Laboratories – Prosero: Orchestration of Business Processes in a Service Oriented Architecture, 2006-2008, US$2M (PI)

Israel Science Ministry — with Alon Ittai, Yoad Winter (Technion), Shuly Winter (Haifa), National Center for Hebrew Computational Linguistics — NIS 1M/year. 2003–2006 (co-PI)

Israel Science Foundation — with Mira Balaban, Structure and Interpretation of Musical Concepts — NIS 70K/year. 2003–2005 (co-PI)

European Community (ESPRIT) — with Michael Codish (BGU), Manuel Hermenegildo (UPM, Madrid), Dalet SA (Paris), RadioWeb: Automatic Generation of Web Sites for the Broadcasting

Industry — $800K 1998–1999. (PI)

Keren Ezvonot — with Michael Codish (BGU), Editor for Blind Users with Hebrew Text-to-speech support — NIS100K, 1998. (co-PI)

Binational Scientific Foundation (BSF) — with Kathleen McKeown, Columbia University, Text Generation and Summarization of Multiple Textual Sources — $60K 1996–1999. (PI)

Israeli Science Ministry — Infrastructure Grant — with Yaakov Choueka, Ido Dagan and Tomi Klein (Bar Ilan), Development of Hebrew Text Generation Tools and Automatic Summarization — $150K 1995–1998 (for the BGU team). (co-PI)

Intel – Equipment for research and projects laboratory — with Klara Kedem, Shlomi Dolev and Michael Codish — $25K, 1996. (co-PI)

Israeli Science Ministry – Computational Techniques for Bilingual Text Generation, $40K 1994–1997. (PI)

(c) Distributed Research Software

FUF and SURGE text generation system: distributed to over 50 research sites worldwide and used for teaching purposes at 6 US universities and at BGU. FUF is also used in two recent textbooks on natural language generation as the main teaching tool for generation. FUF is the most widely used text generation system in the world and includes SURGE, one of the largest generation grammars implemented. The software is available free under the General Public License and is distributed on the Ben Gurion University Web site (http://www.cs.bgu.ac.il/surge).

- The technical report: *An Overview of SURGE: A reusable comprehensive syntactic realization component* is cited 223 times in Google Scholar.

- The technical report: *FUF: The Universal Unifier User Manual* is cited 145 times in Google Scholar.

Automatic Summarization Prototype: the system is described in several publications and was developed with Regina Barzilay during her MSc work in 1998. The system produces short summaries of arbitrary English text, relying on the notion of lexical chains. The evaluation benchmark used to validate the system has been used by several other researchers in the field of summarization and is posted at http://www.cs.bgu.ac.il/summarization-results. A fast implementation of the system has been developed by Greg Silver at University of Delaware and is available at http://www.eecis.udel.edu/~silber/research.htm. The papers describing this system remain the 5 most cited papers in the field of Automatic Summarization in 2020 as measured by Google Scholar (with over 1,500 aggregated citations).

RadioWeb - automatic generation of Web Sites: I was the coordinator of the European Community project FP5 RadioWeb. The project consortium involved BGU, University of Madrid and Dalet. A RadioWeb working prototype has been put in operation at the largest Spanish radio broadcaster (Cadena Ser) and at ABC Radio in New York. The system automatically produces formatted Web pages containing streaming audio from a database of audio and meta data.

Hebrew Natural Language Processing Tools:
http://www.cs.bgu.ac.il/∼elhadad/nlpproj
Includes software to provide context-sensitive morphological analysis of modern Hebrew text, detect and classify named entity, dependency and constituent-based syntactic parsing, Wikification of Hebrew text (automatic creation of links from text to relevant Wikipedia articles), and a generation grammar for Hebrew written in FUF. Since 2006, over 70 papers have been published by the BGU group on this project in ACL conferences (with over 1,500 aggregated citations).