Bibliography of Research in Natural Language Generation

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November 1993

CMU-CS-93-216

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Abstract

This document provides a 1200+ entry bibliography of natural language generation research. The BibTeX sources for the bibliography are available by anonymous ftp.

This work was supported in part by Fujitsu Laboratories, Ltd., and in part by a National Science Foundation (NSF) Graduate Fellowship.

Keywords: Natural Language Generation

1. Introduction

This document provides a comprehensive bibliography of Natural Language Generation research. The bibliography includes over 1,200 BibTeX-formated entries and is available free by anonymous ftp.

When compiling this bibliography, we began by including relevant references from several PhD theses, books, conferences and workshops, including the natural language generation workshops (IWNLGS, ENLGWS), natural language processing conferences (ANLP, TINLAP, SPEECH), artificial intelligence conferences (AAAI, SCAI, ECAI, GWAI, IJCAI, CAIA), and computational linguistics and cognitive science conferences (ACL, COLING, EACL, COGSCI). Tracing backwards from these references, we filled in some of the holes in the bibliography. Where possible, we've consulted the original source to verify the accuracy of the citations.[1]

In any undertaking of this magnitude, errors and omissions are hard to avoid. We apologize in advance to any author who has been overlooked, and welcome corrections and additions. We intend to continue updating the BibTeX database. Please send updates by E-mail to `mkant@cs.cmu.edu`.

We originally intended to produce an annotated and cross-indexed guide to the NLG literature, but ran out of time. The field is growing so fast that if we were to wait until the guide was finished, it would already be obsolete.

2. Obtaining the BibTeX Bibliography by FTP

The bibliography is maintained in the form of a BibTeX file. To obtain the bibliography, connect by anonymous ftp to `ftp.cs.cmu.edu` [128.2.206.173] using username "`anonymous`" and password "`name@host`" (your email address). The file `nlg-bib.tar.gz`, a gzipped[2] tar file, is located in the directory

    user/ai/software/nlp/nlg/bib/mk/.

and includes the BibTeX file `nlg.bib` and this report `nlg-bib.tex`. If your site runs the Andrew File System, you can find the file in the AFS directory

    /afs/cs.cmu.edu/project/ai-repository/ai/software/nlp/nlg/bib/mk/.

3. Overviews of NLG Research

There have been several good surveys of work in natural language generation. Mann *et al* [698] reviews work prior to 1982. More recent (and also more technical) overviews may be found in McDonald's article in

[1]We found a surprising number of incorrect citations in the reference sections of these papers. Incorrect citations that appeared in one paper tended to propagate to later papers.

[2]GZIP is a patent-free compression program that achieves a better compression ratio than COMPRESS. It is available free by anonymous ftp from `prep.ai.mit.edu` [18.71.0.38] in the `pub/gnu/` directory.

the Encyclopedia of Artificial Intelligence [774, 782], McKeown and Swartout's article in the 1987 Annual Review of Computer Science [808] (also reprinted in Zock and Sabah's book [809]), and Kempen's survey [594]. Robin [991] and Cumming [217] summarize work on lexical selection. Mann [696] and Joshi [553] discuss the differences between the synthesis and analysis of natural language. Hovy gives an overview of trends in research on the discourse structure of monologic text, focusing on the structuralist and functionalist approaches [486].

For a survey of work on expert system explanation, which is a distinct and fairly large subfield of natural language generation, consult Moore and Swartout [858]. The characteristics of a good explanation facility are discussed in Moore and Paris [857]. Suthers surveys explanation planning mechanisms [1104].

For a survey of work on machine translation, see Slocum's article in *Computational Linguistics* [1080].

Summaries of recent work and current issues in natural language generation also appear in Hovy and McCoy [492], Mykowiecka [868], and Fedder [323], as well as in the proceedings of the natural language generation workshops.

Since 1983 there have been regular international workshops on natural language generation, and European workshops since 1987. The proceedings from some of these workshops have been published in book form:

International NLG Workshops			
#	Year	Location	References
1	1983	Stuttgart, Germany	
2	1984	Stanford, California	
3	1986	Nijmegen, The Netherlands	[593]
4	1988	Los Angeles, California	[917]
5	1990	Pittsburgh, Pennsylvania	[923, 156]
6	1992	Trento, Italy	[229]
European NLG Workshops			
#	Year	Location	References
1	1987	Abbey de Royaumont, France	[1215, 1216]
2	1989	Edinburgh	[230]
3	1991	Innsbruck, Austria	[468]

Perrault and Grosz's article in the 1986 Annual Review of Computer Science [937] surveys work on natural language interfaces. See also Rich [985]. NLI work is relevant to NLG, but most work in NLI focuses on the understanding end of the interface. Simmons [1072] is a much older survey of work on question-answering.

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