Welcome

The study of automated Natural Language Generation has had a long and varied history. Usually overshadowed by larger efforts in parsing, semantic analysis, grammar development, lexical studies, and lately statistical processing, progress is slower in NLG than in some other areas of Computational Linguistics. And though the importance of the topic has always been recognized, the difficulty of the topic has usually not been appreciated by most people not directly involved with generation. Undeservedly, generation is often seen as somewhat easier than parsing and semantic analysis, simply because it is easier to build a low-quality realizer than a low-quality parser or analyzer. But when the stages of text planning and sentence planning are factored in, and the problem of expressive variation is faced, the true complexity of generation becomes apparent. That's when one sees the need for much deeper theories of discourse, lexis, and pragmatics than are currently available!

NLG has been fortunate, though, in having a dedicated and loyal core set of practitioners. Their ongoing concern is reflected in the active workshop series. About a decade after some of the first papers on sentence generation appeared, the first NLG Workshop was held. Soon, the international workshops became a regular biennial series, alternating between North America and Europe. From the rather modest beginning as a small workshop in Germany in 1983, the INLG workshop has become a sought-after event, regularly attended by around 60 researchers: Stettenfels, Germany (1983); Stanford University, California (1984); Nijmegen, The Netherlands (1986); Santa Catalina Island, California (1988); Dawson, Pennsylvania (1990); Trento, Italy (1992); Kennebunkport, Maine (1994); Herstmonceaux, England (1996); Niagara-on-the-Lake, Canada (1998). In addition, the European workshops, held in the intervening years since 1987, have also become an ongoing series.

We are in the fortunate position today of being able to wonder whether we should change the workshops into conferences. This year, an unprecedentedly large number of papers was submitted. Registration soon reached capacity of near 100. The traditional number of around 60 attendees seems to be a thing of the past. New projects, on all aspects of NLG, seem to be thriving.

There are also encouraging signs of awareness of the need to fund NLG research, and of its practical utility in commercial systems. The European Union, some European countries, some larger Japanese software companies, and the Canadian Government have shown continued willingness to fund NLG. Even the decade-long absence of funding from the larger US funding agencies may perhaps soon come to an end.

Many thanks are due to the following sponsors:
- the University of Waterloo’s Institute for Computer Research (ICR), for funding, administrative supplies, and the services of Jean Webster;
- the American Association for Artificial Intelligence (AAAI), for funding to support student attendance;
- the University of Waterloo’s Academic Development Fund, for funding of administrative costs.

I would like to thank the program committee and the local arrangements committee, listed at left, for their very hard work in making this workshop so successful. Special thanks to Chrysanne DiMarco and Graeme Hirst, who continued the tradition of holding the workshop in very pleasant surroundings.

With all this positive news, welcome to the 1998 international natural language generation workshop!

Eduard Hovy, Program Chair
Information Sciences Institute
Marina del Rey, CA
June, 1998
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Workshop Program

Tuesday, August 4

18:00 Reception
19:30 Dinner

Wednesday, August 5

Session 1: Planning and Generation with Multiple Media
8:30 Opening
8:45 Invited talk: Natural Language Generation Journeys to Interactive 3D Worlds
James C. Lester, William H. Bares, Charles B. Callaway, Stuart G. Towns
9:30 Communicative Goal-Driven NL Generation and Data-Driven Graphics Generation:
An Architectural Synthesis for Multimedia Page Generation
John Bateman, Thomas Kamps, Jörg Kleinz, Klaus Reichenberger
10:00 A Principled Representation of Attributive Descriptions for Generating Integrated Text and
Information Graphics Presentations
Nancy Green, Giuseppe Carenini, Johanna Moore

10:30 Break

Session 2: Architectural Questions
11:00 An Architecture for Opportunistic Text Generation
Chris Mellish, Mick O'Donnell, Jon Oberlander, Alistair Knott
11:30 Controlled Realization of Complex Objects by Reversing the Output of a Parser
David McDonald
12:00 De-Constraining Text Generation
Stephen Beale, Sergei Nirenburg, Evelyne Viegas, Leo Wanner

12:30 Lunch

Session 3: Joint Planning of Content and Formulation
14:00 Automatic Generation of Subway Directions: Salience Gradation as a Factor for Determining
Message and Form
Lidia Fraczak, Guy Lapalme, Michael Zock
14:30 Introducing Maximal Variation in Text Planning for Small Domains
Erwin Marsi
14:45 A New Approach to Expert System Explanations
Regina Barzilay, Owen Rambow, Daryl McCullough
15:00 Macroplanning with a Cognitive Architecture for the Adaptive Explanation of Proofs
Armin Fiedler
15:15 Discussion

15:30 Break

Outing
16:00 Scenic tour to Niagara Falls and dinner
22:30 Return to hotel
Thursday, August 6

Session 4: Sentence Planning 1: Inference and Content
9:00 Experiments Using Stochastic Search for Text Planning
Chris Mellish, Alistair Knott, Jon Oberlander, Mick O'Donnell
9:30 Abductive Reasoning for Syntactic Realization
Ralf Klabunde, Martin Jansche
10:00 Generating Warning Instructions by Planning Accidents and Injuries
Daniel Ansari, Graeme Hirst

10:30 Break

Session 5: Sentence Planning 2: Subtasks
11:00 Discourse Marker Choice in Sentence Planning
Brigitte Grote, Manfred Stede
11:30 Clause Aggregation using Linguistics Knowledge
James Shaw
11:45 Attention during Argument Generation and Presentation
Ingrid Zukerman, Richard McConachy, Kevin Korb
12:00 Planning Dialogue Contributions with New Information
Kristiina Jokinen, Hideki Tanaka, Akio Yokoo
12:15 Discussion
12:30 Lunch

12:30 Session 6: Relationships between Semantics, Syntax, Lexis, and Morphology
14:00 Generation of Noun Compounds in Hebrew: Can Syntactic Knowledge be Fully Encapsulated?
Yael Dahan Netzer, Michael Elhadad
14:30 Textual Economy through Close Coupling of Syntax and Semantics
Matthew Stone, Bonnie Webber
14:45 A Language-Independent System for Generating Feature Structures From Interlingua Representations
Murat Temizsoy, Ilyas Cicekli
15:00 Toward Multilingual Protocol Generation for Spontaneous Speech Dialogues
Jan Alexandersson, Peter Poller
15:15 Discussion
15:30 Break

16:00 ROMVOX
Text-to-speech synthesis of Romanian
Attila Ferencz, Teodora Ratiu, Maria Ferencz, Tünde-Csilla Kovács, István Nagy, Diana Zaiu

16:20 MultiMeteo
Interactive weather report generation
José Coch

16:40 MLWFA
Multilingual weather forecasts
Tianfang Yao, Dongmo Zhang, Qian Wang

16:00 FLAUBERT
User-friendly multilingual NLG
Frédéric Meunier, Laurence Danlos

16:20 GoalGetter
Generation of spoken soccer reports
Mariët Theune, Esther Klabbers

16:40 GBGen
Large-scale domain-indep. GB syntax
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17:00 Circsum-Tutor
Content planning in a tutoring system
Reva Freedman, Stefan Brandle, Michael Glass, Jung Hee Kim, Yujian Zhou, Martha Evens

17:20 WYSIWYM
Knowledge editing with NL feedback
Richard Power, Donia Scott

18:00 Dinner

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9:15 Approaches to Surface Realization with HPSG
Graham Wilcock
9:30 The Mutilx Generator and its Environment: Application and Development
Christian Matthiessen, Licheng Zeng, Marilyn Cross, Ichiro Kobayashi, Kazuhiro Teruya, Canzhong Wu
9:45 A Flexible Shallow Approach to Text Generation
Stephan Busemann and Helmut Horacek
10:00 The Practical Value of N-Grams in Generation
Irene Langkilde, Kevin Knight
10:15 Discussion
10:30 Break

Session 8: Constructing the Input
11:00 Generation as a Solution to its Own Problem
Donia Scott, Richard Power, Roger Evans
11:15 EXEMPLARS: A Practical, Extensible Framework for Dynamic Text Generation
Michael White, Ted Caldwell
11:30 Discussion

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