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Proceedings



Second International Workshop on Parsing Technologies

13-15 February 1991



Sheraton Cancun Resort & Towers (Cancun, Mexico)

I W P T '91

Proceedings of the Second International Workshop on Parsing Technologies

> February 13-25, 1991 Cancun, Mexico





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Preface

WELCOME to the International Workshop on Parsing Technologies.

Parsing was the first topic in computational linguistics to separate itself from the relatively incoherent background of 'ad hoc' approaches to machine translation and information retrieval. While the emergence, in the early sixties, of general parsing algorithms that could take account of the ambiguity and nondeterminism that are apparently endemic to natural language was a cause for excitement, it would, I think have surprised those that experienced it to know how vigorous the field would remain after thirty years. This is due to a number of factors: Formal grammars and related processes have proved to be rich in mathematical properties, a fact that is attested to abundantly by the papers in this volume. It could certainly not have been foreseen that such a wide range of grammatical formalisms would emerge, partly as a response to transformational grammar. Furthermore, the notions of reversible, declarative, and psychologically plausible formalisms had yet to emerge. Statistical and connectionist approaches to grammar could only develop against a richer set of grammatical ideas.

All of these things have preserved the position of parsing as an exciting and continually changing field. And they have made the task of those responsible for the program of this conference especially difficult. I am therefore especially grateful to the program committee, Robert Berwick, Harry Bunt, Eva Hajicova, Aravind Joshi, Ronald Kaplan, Robert Kasper, Makoto Nagao, Masaru Tomita, and Yorick Wilks for their efforts. Masaru Tomita is, of course, especially to be thanked for realizing the need for a series of workshops of this kind, for arranging the first of them, and for his invaluable contributions to the planning of this one. In fact the only person to whom we owe a greater debt is Joan Maddamma, secretary to Prof. Tomita with whom I've developed a close working relationship: I made all the errors in the planning of the meeting, and she fixed them all up.

I look forward to a very exciting three days. I hope you will find the papers informative, the company stimulating, and the weather warm enough.

Martin Kay IWPT '91 Program Chair

Workshop Committee

Program Committee:

Martin Kay, Xerox PARC Chairman

Robert Berwick, Massachusetts Institute of Technology

Harry Bunt, Tilburg University

Eva Hajicova, Charles University

Aravind Joshi, University of Pennsylvania

Ronald Kaplan, Xerox PARC

Robert Kasper, University of Ohio

Masaru Tomita, Carnegie Mellon University

Makoto Nagao, Kyoto University

Yorick Wilks, New Mexico State University

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#### **Workshop Organizers**

Masaru Tomita, Carnegie Mellon University General Chairman

> Martin Kay, Xerox Corporation Program Chairman

Joan Maddamma, Carnegie Mellon University Coordinator/Secretary

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Carnegie Mellon University - (USA)

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