2003 ACL Lifetime Achievement Award

Makoto Nagao: ACL Award Winner! The ACL Lifetime Achievement Award The ACL Lifetime Achievement Award was instituted on the occasion of the 40th anniversary meeting of the Association. The award will henceforth be presented for scientific achievement, of both theoretical and applied nature, in the field of Computational Linguistics. The executive committee of the ACL will nominate and select at most one award recipient annually at its winter meeting, considering the originality, depth, breadth and impact of the entire body of the nominees' work in computational linguistics. The award is a crystal trophy (the nearly transparent object being present to Aravind Joshi in the accompanying photo), and the recipient is invited to give a 45-minute speech on his views on the development of Computational Linguistics at the annual meeting. The speech is introduced by the announcement of the award, which is confidential until then. The Recipient of the 2003 ACL Lifetime Achievement Award The Association for Computational Linguistics is proud to present its 2003 Lifetime Achievement Award to Prof. Makoto Nagao, the 23rd president of Kyoto University. The award was presented at the 41rst meeting of the ACL on July 9, 2003.

A Brief Laudatio

Prof. Nagao graduated from Kyoto University in 1959, attended graduate school at Kyoto until 1961, then joined Kyoto University as an assistant professor. He became a professor of Kyoto University in 1973. He is now the president of Kyoto University.

Although he has worked on an extremely wide variety of topics such as image analysis and understanding, I'd like to focus on three major contributions of his to natural language processing here. They are (1) machine translation, (2) linguistic technology for working with languages like Japanese, and (3) digital libraries.

If I were to list all of the major contributions Prof. Nagao has made to machine translation we'd be here all afternoon, so I'll just mention three of his major contributionsto MT here.

Prof. Nagao was instrumental in the Mu project for machine translation. This was a transfer-model-based machine translation system developed between 1982 and 1986 that translated abstracts of technical papers in the natural sciences. It was the first successful MT system between two languages having a radically different syntactic structure, namely English and Japanese.

Second, Prof. Nagao proposed and was a strong proponent of example-based MT in the early 80's. Since then example-based MT has been a central research topic in MT, and ATR (Japan) (which he was central in the organization of) uses example-based MT in their MT system.

Third, Prof. Nagao has contributed service to the field in ways to numerous to list. To name just one, he was instrumental in the creation of the International Association of Machine Translation (IAMT), and served as its first president.

Leaving Machine Translation and turning to the field of linguistic tools for analyzing languages like Japanese, I'd like to note two major contributions Prof. Nagao has made in this area.

In early 90's, Prof. Nagao developed the Japanese morphological analyzer named JUAMN, which is the first combination of segmenter and morphological analyzer for a morphologically agglutinative language with an orthography that doesn't mark word boundaries reliably. He showed that in Japanese it is advantageous to perform word segmentation, morphological analysis and POS tagging at the same time. JUAMN's accuracy was 95%, and it spurred the development of numerous other systems based on the same principles, some of which now achieve up to 98% accuracy.

Prof. Nagao also developed a dependency-based syntactic parser called KNP that is especially appropriate for free word languages such as Japanese.

Turning to digital libraries, Prof. Nagao has personally conducted and coordinated some of the most important digital library research in Japan. The Adriadne system, which he was instrumental in developing, has influenced the research and development of digital libraries in Japan and throughout the world. He made significant technical contributions in areas such as inter- and intra-content indexing of documents that exploits NLP technology that will be dear to most of our hearts. He has also made significant suggestions regarding the social and legal framework in which documents are manipulated and shared, addressing issues such as copyright, electronic books, publishers and education.

For reason's of time I've had to skip over many of Prof. Nagao's scientific contributions to the field, and most of his service to government, academia and science in general.

We're not the first organization to recognize Prof. Nagao's contributions. In 1993 he was awarded the IEEE Emanuel R. Piore Award, in 1997 he received Medal of Honor from the International Association for Machine Translation, and in 1997

he received the Purple Ribbon Medal from Japanese Prime Minister's Office, to name just a few of the awards he has received. I hope he'll proudly display the Life-Time Achievement Award from the Association for Computational Linguistics together with the other impressive awards he has already received.

Ladies and gentlemen, colleagues and fellow members, please join me in congratulating Prof. Nagao for receiving the highest honour that the Association for Computational Linguistics can bestow: the Lifetime Achievement Award. Mark Johnson

ACL President
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