

Application of Machine Translation during Olympic Games 2008

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Outline



- Background
- MT Application during Olympics 2008
- About Huajian Group Co., Ltd.





Background

- ◆ In 2001, the Chinese government gained the qualification to hold 2008 Olympic Games in Beijing
- ◆ In 2002, the Hi-Tech R&D Program of China (“863” Program) funded a big project named as “Research and Development of Multi-lingual Intelligent Information Service System and Application Demonstration System” (Grant No. 2002AA117010)

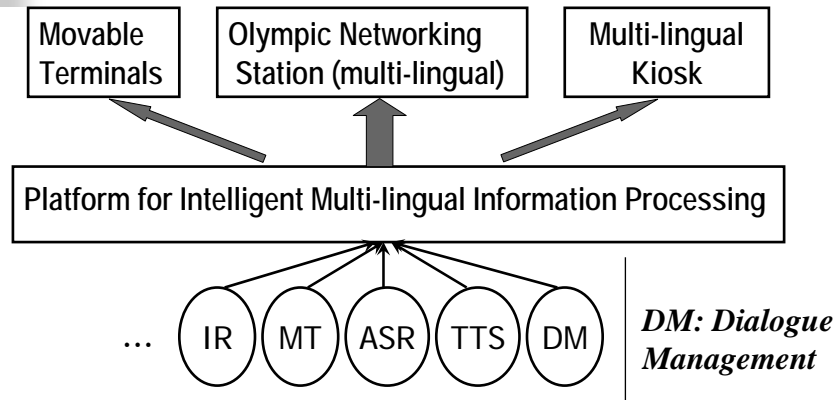


Background

- ◆ Purpose:
R&D of human language technology oriented to 2008 Olympic Games to provide the technical support to reach the goal of “Digital Olympic, Personalized Olympic”.
- ◆ Tasks:
 - Information service (Networking & Kiosk)
 - Computer-aided Multi-lingual translation (off-line)
 - Real-time multi-lingual translation (on site / on line)
 - Multi-lingual service for mobile terminals



Background



- *IR: Information Retrieval*
- *ASR: Auto. Speech Recog.*
- *MT: Machine Translation*
- *TTS: Text to Speech synthesis*



Background

- ◆ Participants:
 - CapInfo Co., Ltd.
 - Institute of Automation, CAS
 - Huajian Group Co., Ltd., CAS
 - Beijing University of Post and Telecommunication
 - TRS Co., Ltd.
 - Institute of Acoustics, CAS
 - Peking University
 - Institute of Computing Technology, CAS



Background

- ◆ Since 2005
 - Text-to-text machine translation or machine assisted translation has been more focused ...
- ◆ Language pairs:
 - Chinese-English
 - Chinese-Japanese
 - Chinese-French
 - Chinese-Spanish
 - Chinese-Russian



MT Application during Olympics 2008

- ◆ Multi-lingual Information Service Centre
 - ◆ Kiosk
 - ◆ Call Centre
 - ◆ Post Service
- ◆ Multi-lingual Information Service Centre
 - Various types of documents
 - Athletes' resumes, records and all background information
 - Schedules of activities



MT Application during Olympics 2008

◆ Kiosk

- 62 kiosks are installed at airport, some agonistic places, sight-seeing sites, and key traffic stations
- Various types of documents
- Athletes' resumes, records and all background information
- Schedules of activities
- Traffic information



MT Application during Olympics 2008

◆ Call Centre – a commonweal hot line: 12308

For Chinese speakers: 12308001

For English speakers: 12308002 ...

- Traffic information
- Introduction to Olympic places, facilities, policies, and some cultural activities
- Users' personalized question-answering



MT Application during Olympics 2008

◆ Post Service System

- Developed in Windows XP Windows server 2003
- Server: Tomcat6.0
- Rule-based MT
 - Number of rules, entries and proper nouns

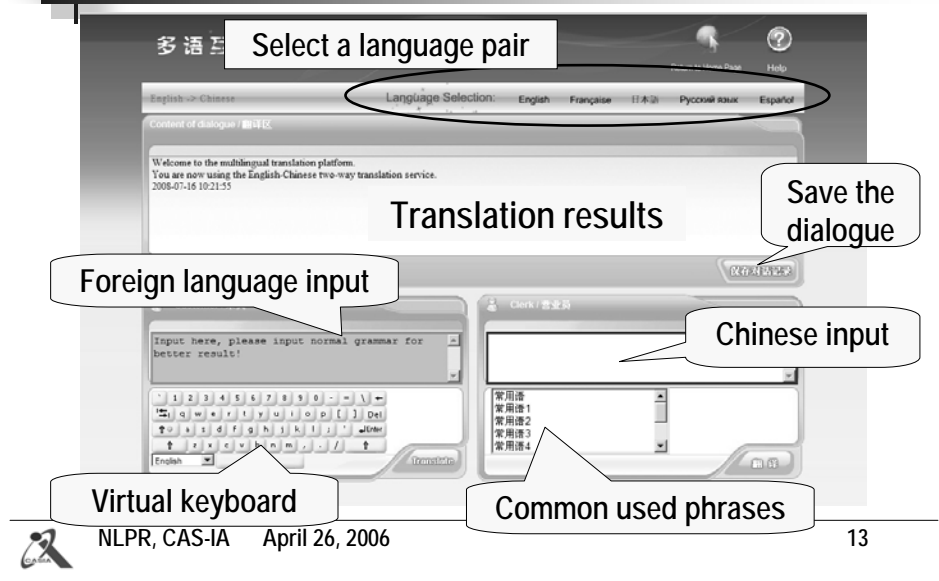
Language Pairs	Entries	Rules	Proper Nouns
C - E	270,000	4,899	47,000
E - C	270,000	6,000	40,000
C - J	240,000	2,273	34,000
J - C	230,000	2,736	26,000



MT Application during Olympics 2008



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About Huajian Group Co., Ltd.

- ◆ <http://www.hjtek.com/en/index.html>
- ◆ A high-tech enterprise directly invested by the Chinese Academy of Sciences.
- ◆ Mainly engaged in technological research, product development, application integration and technical services in the field of computer and language information processing, to provide the government, businesses and individuals with solutions to computer information system applications such as computer information processing, systems integration and information services.



CEO

About Huajian Group Co., Ltd.

- ◆ Machine translation systems involve 8 languages: Chinese (simple and traditional Chinese characters), English, Russian, Japanese, Germany, French, Spanish, and Korean.

2005
Dr.eye 译典通



- ◆ MT systems:
 - Chinese ↔ English
 - Chinese ↔ Japanese
 - Chinese ↔ Russian
 - Chinese ↔ Korean
 - Germany → Chinese
 - French → Chinese
 - Chinese → Spanish



About Huajian Group Co., Ltd.

- ◆ Landmarks
 - 1985-1990, Study on theories of MT, SC Grammar was proposed
 - 1990-1992, development of the first E-C intelligent MT system
 - 1992, Success in developing the first pocket English-Chinese translator
 - 1995, The English-Chinese intelligent machine translation systems won the First Prize of Progress in National Science and Technology
 - 1997, Establishment of the Research Center of Computer & Language Information Engineering, Chinese Academy of Sciences



About Huajian Group Co., Ltd.

- 2002, The new products 'Huajian EasyTrans English-Chinese Two-way Ultra-intelligent Version' and 'Huajian IAT' were put onto the market
- 2003, Establishment of Beijing Huajian Huizhi Co., Ltd.
- 2006, Establishment of Huajian eTone Language Technology (Beijing) Co., Ltd.
- 2007, Establishment of Ningbo Huajian Information Technology Co., Ltd.
- 2007, Establishment of Tianjin Zhongke Huajian Science & Technology Co., Ltd.

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NLPR, CAS-IA April 26, 2006



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Thanks

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