

IEICE Global Plaza

—Monthly community plaza in English for students, faculties and engineers—

Essay

Enjoy the Language Grid in development of IEICE Multicultural Society



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Academic communities encourage us to write papers in English. This is to share our research results with the world. Does it follow that we should stop using our mother tongue in our research? You may think it would be needed to increase your publicity in the global community. If you turn your eyes to Wikipedia, there are 3400K English, 690K Japanese, 320K Chinese, 140K Korean, 130K Indonesian, 130K Vietnamese, 68K Malay, and 62K Thai articles. Should we stop using our mother tongue in publicizing our knowledge? You may not think so. In fact, the Wikipedia foundation is working to solve this huge language imbalance. Academic societies have many different roles but the two main ones are publishing research papers and publicizing knowledge in society. Using English as a common language cannot be a solution in Asia. We are using a variety of languages and now have the technologies to bridge different cultures.

Kyoto University and NICT have been working on the Language Grid since 2006, a service-oriented language infrastructure on the Internet. Although we can't expect perfect translation quality, such systems are useful when

customized to the communities involved. For this purpose, we need to combine community-specific dictionaries and multilingual parallel texts with machine translators. Furthermore, to analyze input sentences to be translated, we need part-of-speech taggers and dependency parsers. Latest computing technologies enable the Language Grid to create a workflow that assists in the customization of machine translators.

We are now developing an IEICE multicultural society site, where users can combine many language resources to create a translation path with multilingual dictionaries. We are planning to conduct an experiment where several Asian Sections, such as China, Korea, Taiwan, Singapore and Thailand, collaboratively translate the Global Plaza into their mother tongue using the IEICE multicultural society site.

Even if we can create a customized language environment, we still have a problem that most available machine translators are for English and another language. When we need to translate phrases in one language into another non-English language, we must first translate them into English, then into the other language. Different machine translators are likely to have been developed by different companies or research institutes, so they independently select words in each translation. The same problem appears in communication through machine translators: when we get a reply, we might discover that our original message was badly translated to be misunderstood by the partners.

Though we know that there are problems, we are trying to create a multilingual environment for IEICE. It is known that the machine translation can mediate communication works better in high-context communities. We hope to create a

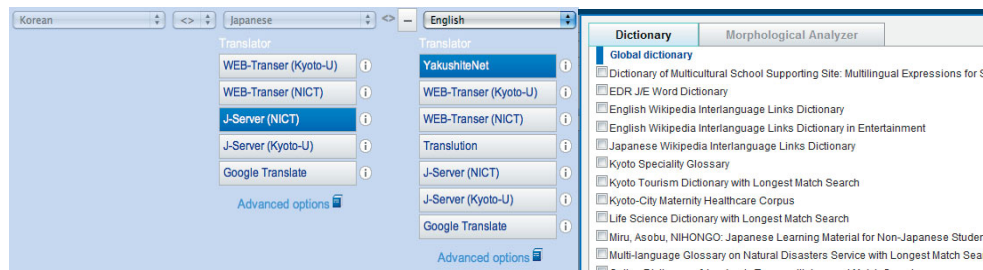


Fig. 1 Translation Path with Multilingual Dictionaries

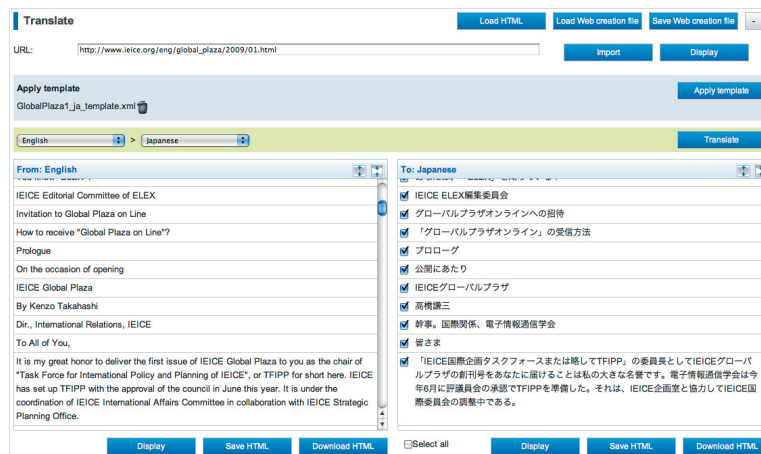


Fig. 2 Automatic Translation of IEICE Global Plaza

culture-friendly IEICE based on both technology and community developments.

Note by IEICE TFIPP

IEICE TFIPP (cf. the last article) has discussed the possibility and empirical plan to apply the Language Grid technologies to the "Language-barrier Free Cyber Space" where all IEICE members can freely communicate each other without worrying about languages through one of quite many language interfaces covering their own mother languages on an IEICE Web page. The first trial of the plan will be commenced in collaboration with IEICE Overseas Sections soon. See the relevant article of IEICE Global Plaza in IEICE Journal vol. 93, no. 5 or visit the archive at http://www.ieice.org/eng/global_plaza/2009/16.html.

Hot Topics

IEICE provides workshops at the biggest exhibition of ICT and electronics in Asia, CEATEC JAPAN 2010

WG on Collaborative Activities with CEATEC Japan IEICE Strategic Planning Committee

The Cutting-edge IT and Electronics Comprehensive Exhibition (CEATEC JAPAN) is focused on the collaborative works between industry and users related to the policy, strategy, design, production, applications, services and management of electronics, information, and communication. It is based on the long history which has been developed since the set-up of constituent exhibitions, "Electronics Show" in 1964, "DATA SHOW" in 1972, "COMMUNICATIONS TOKYO" in 1972 and enhanced "COM TOKYO" in 1997. It has been evolved to be the biggest exhibition of ICT and electronics in Asian region. It provides the all-inclusive display of the latest relevant technologies and products, while it also provides lectures and seminars at the Conference Session which will be presented by global and key industry leaders.

Here, IEICE organizes the workshops through collaborations of Interested Technical Committees there for better academic and technical activities in relevant industries, in conjunction with CEATEC organizations. This is the first trial for IEICE. The workshops will give a good chance for the researchers and developers working in industries or universities to know the activities. Moreover, the trial of collaborative relationships between CEATEC and IEICE will make IEICE activities more active and industry-based by the mutual cross-attendance between both participants in CEATEC and IEICE workshops. Your participation in the workshops is most welcome. The workshops are summarized as follows:

Date: October 5 (Tues.)~October 9 (Sat.), 2010

Venue: Makuhai Messe (5 min. on foot from the nearest JR station "Kaihin Makuhari" on JR Keiyo Line from Tokyo)

Fee: Free of Charge

Registration: You can join the workshops after the registration at <https://ceatecjapan.com/mbr/ja/11100join.php>, on the FCFS basis.

The workshops contains the following sessions:

Keynote Theme 1: Future Display Supporting Digital Harmony

● Technical Committees on Signal Processing, on Image Engineering and on Integrated Circuits & Devices—"The State-of-the-Art Technologies of Processor, DSP and Image Processing for the Digital Harmony" at Conf. Function Room A (1F) on Oct. 5~6.

● Technical Committee on Electronics Information Displays—"The 3rd Symposium on Flexible Displays" in joint with

CEATEC2010 at Conf. Room 301 on Oct. 9.

Keynote Theme 2: Future Networks from NGN to NWGN

● Technical Committees on New Generation Network and on Network Systems—"Evolution of Network Technology-Next Generation Network and New Generation Network-" at Conf. Function Room A on Oct. 7.

● Technical Committee on Network Software—"Advancing Network Service Software, etc." at Conf. Function Room B (1F) on Oct. 8.

Keynote Theme 3: Cloud Computing for Enterprise Services

● Technical Committee on Software Enterprise Modeling—"Adaptability of Cloud Computing for Enterprise Information Systems (Tutorial)" at Conf. Room 304 on Oct. 7.

● Technical Committee on Services Computing—"Beyond Web Services and Cloud Computing: the New Era of Services Computing" at Conf. Room 304 on Oct. 7.

Keynote Theme 4: Image and Speech Processing for Welfare and Surveillance

● Technical Committees on Pattern Recognition & Media Understanding, on Well-being Information Technology and on Speech—"Image and Speech Processing Technologies for Social Welfare and Security" at Conf. Room 303 on Oct. 8 and at Conf. Rooms 302 and 303 on Oct. 9.

Individual and Separate Themes

● Technical Committee on Circuit and Systems provides—"Advanced Simulation Technologies for Electronics" at Conf. Function Room B on Oct. 6 (a.m.).

● Technical Committee on Network Robots—"Network Robots for Healthcare" at Conf. Function Room B on Oct. 7.

● Technical Committee on Ethics of Human and ICT—"Medical ICT-Appliances of the Future" at Conf. Function Room A on Oct. 9.

Upcoming International Conferences

IWSEC 2010-IEICE Engineering Sciences Soc.

2010 International Workshop on Security, at Kobe in Japan, on Nov. 22-24, <http://www.iwsec.org/2010/>

APARM 2010-IEICE Engineering Sciences Soc.

The 4th Asia-Pacific International Symposium on Advanced Reliability and Maintenance Modeling, at Wellington in New Zealand, on Dec. 2-4, <http://msor.victoria.ac.nz/Events/APARM2010/>.

ISADS 2011-IEICE Communications Soc. and Information Systems Soc. The 10th International Symposium on Autonomous Decentralized Systems (ISADS 2011), in Tokyo and Hiroshima, on March 23-27, 2011. Due dates for papers and panel proposals is Aug 31, <http://www.isads2011.info.hiroshima-cu.ac.jp/>.

Message from TFIPP Secretariat

This issue is delivered also by a free mail magazine "IEICE Global Plaza on Line" with updated news of interest for you. Please contact Prof. Takahashi, TFIPP (Task Force for International Policy and Planning) at global@ieice.org, if you need. Back numbers are available in archives at http://www.ieice.org/eng/global_plaza/index.html/.

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