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MT News International

Newsletter of the International Association for Machine Translation

Compendium Available in July

The long-awaited IAMT publication, *Compendium of Commercial Machine Translation Systems*, is scheduled for on-line publication by mid-July, 1998. This fact-rich volume provides detailed particulars on over 200 commercial machine translation systems, including language pairs, platform(s), retail price(s), systems integration, contact information, and Website, all current as of May 1998. In addition, it contains information on systems and language pairs under development.

Authored by W. John Hutchins, L. Chris Miller, and Edith Westfall. *Compendium* on-line subscriptions are available at the highly affordable price of US\$15.00 to members of AAMT, AMTA, and EAMT (\$30.00 to nonmembers). It is a must-have for anyone professionally involved in MT and for all prospective users of machine translation. Subscriptions may be purchased through Deborah Becker, IAMT/AMTA Focal Point, 1201 Pennsylvania Avenue, N.W., Suite 300, Washington, DC 20004, U.S.A.; phone/fax: 703/716-0912; e-mail: AMTA@clark.net (see order form on page 18).

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Spotlight on the News

AppTek Joins Lernout & Hauspie Speech Firm Branches Out

AppTek, Inc., the McLean, Virginia-based MT company specialized in Middle Eastern and Oriental languages, recently joined Lernout & Hauspie Speech Products, thus bringing to L&H its TransSphere line of MT software in English, Arabic, Chinese, Korean, and Persian (under development).

AppTek offers many supplements to the existing technologies within L&H (see below). AppTek adds its linguistically intelligent Search & Retrieve technology, in combination with its Web Translator, in the additional languages mentioned above to L&H's Coronado project. Coronado, interfaced with AppTek's recently developed Web Translator, will be a search-and-summary and on-line translation product that provides thematic, morphology-based, and query-translation-enabled features for the languages mentioned. Coronado already provides for summarization, searching, morphology, and query translation for several European languages.

L&H is addressing the market for on-line translations by developing the world's first translation tool capable of doing multilingual Internet search-

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ing, summarization, and on-line document translation. Coronado has two main software components: (1) the client, which provides the interface for document searching, summarization, and submission to the server, and (2) the server, which performs the translation, manages translation jobs, and maintains customer account information.

Synergy of Core Technologies

Lernout & Hauspie, which has its home office in Leper, Belgium, and branch offices in the United States (Boston), Europe, and Asia, is already a world leader in the development of advanced speech and linguistic technology, products, and services. The company now offers four core technologies:

- automatic speech recognition
- text-to-speech
- digital speech compression
- text-to-text (translation)

L&H's automatic speech recognition, text-to-speech, and digital speech compression technologies are licensed to some of the world's best-known companies in the telecommunications, computers and multimedia, consumer electronics, and automotive electronics industries. Its text-to-text services are provided to information technology companies as well as integrated and automation markets. L&H's core technologies are available on several platforms for various applications in multiple languages.

Speech Technologies

L&H develops and licenses speech technology to manufacturers in the form of computer software modules with specialized algorithms or mathematical solutions. L&H technology enables customers to create products that recognize natural human speech, create speech from documents, respond to voice commands, and efficiently compress, store, and replay both speech and music.

Automatic speech recognition is currently available in 16 languages and text-to-speech technology in 12 languages.

Dictation

The L&H dictation business serves professional specialties as well as the broader consumer and general user market. Key professional markets include such medical specialties as pathology, cardiology, emergency medicine, primary care, and radiology. All are offered under the L&H and L&H Kurzweil brand names.

These dictation products are used, for example, by doctors, nurses, and medical techni-

cians to speed the process of filling out patient reports and complex medical records.

Translation and Localization

L&H/Mendez ranks among the world's leading providers of custom translation services to business, industry, and academia. The group provides professional translation services to business, publishing, education, computer software and multimedia, automotive, and medical markets.

With offices in a dozen countries, L&H Mendez has a worldwide network of more than 1,000 linguists and language experts fluent in more than 20 languages.

Language Technologies

Language Technologies is the newest division at L&H. Its focus is on the application of fast, convenient, and cost-effective translation for non-English-speaking Internet users. The division currently produces on-the-shelf machine translation software, T1 Translator, for the professional market and is beta-testing an Internet translation and service to be sold by Internet service providers.

L&H also offers automatic translation capabilities that can be built into standard browsers.

L&H media contact: Andrey Pobre (617) 221-8341; www.lhs.com.

AppTek contact: Stephanie Miller (800) 611-2778; www.apptek.com.

AppTek has branches in Dubai, Jordan, and Taiwan.

SYSTRAN Partners with AltaVista

Free Multilingual Search Service

SYSTRAN Software, Inc., is now offering real-time translation on the Internet to over 12 million monthly search users via Digital's AltaVista Search Network. There is no charge for this tool, which enables Web surfers to translate Websites from and into English in a matter of seconds. The service, launched on December 8, 1997, already processes hundreds of thousands of translation requests a day, and the volume is growing steadily.

Currently five of the world's most popular languages--French, Italian, German, Spanish, and Portuguese--are offered in combination with English. At no cost, speakers of any of these languages can immediately translate and under-

stand Websites written in English, while speakers of English have the same capability to understand information in the five foreign languages. SYSTRAN gives them the gist of the foreign text so that they can easily and quickly if the information is relevant for their purposes.

"The Internet and information are global. The Internet has changed our industry," says Dimitrios Sabatakakis, Chairman and CEO of the SYSTRAN Group. "Users are overwhelmed by massive amounts of information on the Internet, increasing on a daily basis. This exciting new service, in partnership with AltaVista, is a multilingual tool that enables anyone to find, understand, and then manage relevant foreign information within seconds."

The translation service is accessible from AltaVista's main site at <http://altavista.digital.com>. The flexible SYSTRAN architecture runs on 64-bit DEC-Alpha computers and provides extremely fast automatic translation turnaround times.

A Stellar Partnership

Digital's fast and powerful AltaVista Search Network is the premier solution for locating information in all areas on the Internet. One of the top destination sites on the World Wide Web, AltaVista has won numerous international awards for its innovation and advanced technology.

SYSTRAN provides worldwide users with an unparalleled tool for translation ease, speed, and accuracy. SYSTRAN also offers a complete online translation service called SYSTRANET, which is available on a subscription basis by clicking Translation Online from the company's Website, www.systransoft.com. SYSTRAN's high level of accuracy is possible thanks to its vast dictionaries, developed over a period of 30 years, combined with its thorough grammatical analysis of the input text.

As globalization continues to accelerate, SYSTRAN products, based on three decades of experience with the U.S. intelligence community, the European Union, and Fortune 500 companies, become more vital to everyday users around the world.

SYSTRAN is headquartered in France and has operations in La Jolla, CA. Visit SYSTRAN on the World Wide Web at www.systransoft.com.

Globalink Launches Real-Time Internet Service

Multilingual Translations of Websites, E-Mail, Chat Rooms, Newsgroups

Globalink, Inc., reports that it has launched an on-line translation service, Comprende™. The company takes pride in its commitment to remove language barriers that deny many people access to the richness of the Internet.

"We have a proven translation software. Now we are taking it onto the Internet as a live service," said Harry Hagerty, CEO of Globalink. "We have been working for months to develop a system that translates multiple languages in a real-time environment. Comprende will become a business-critical tool for global electronic commerce. It works and we're ready. With Comprende the era of English as the language of cyberspace is over."

Initially, Comprende provides real-time Website translation services to and from English and the five European and Latin American languages--French, German, Italian, Portuguese and Spanish. Additional language pairs, including English and Chinese, and Japanese and Russian, will be rolled out in 1998, along with other European language pairs.

"With Comprende, foreign language Websites which before were incomprehensible can now be translated with a click of the mouse. Chat rooms and newsgroups, as well as e-mail, are easily translated with this new product," said Hagerty. "Comprende puts language translation at your fingertips. Imagine surfing into a German chat group. You type in English and they read in German. They type in German and you read in English," he added. "Comprende democratizes the Internet by respecting language and cultural differences rather than forcing English on everyone."

Other Optional Services

Subscribers will also have access to additional services--specifically, postediting and professional translation. Postediting enhances the original machine translation generated by Comprende, providing smoother text and ensuring consistency in the use of dictionary entries. Professional translation services performed entirely by an expert translator are used to provide publication quality contracts, manuals, and other documents that require full native-speaker fluency.

Globalink is developing a network of internet service providers (ISPs) to market Comprende. This network will offer Comprende as an option to their subscribers. Best Internet Communications Inc. of Mountainview, Calif., the industry's first provider of turn-key "merchant-ready" commerce server solutions, and the world's largest holder of domain name registrations; is now the first to offer Comprende.

"Comprende allows our customers to expand the quality of their global market presence overnight," said Rob Howard, vice president of sales and business development for Best Internet Communications. "We are proud to partner with Globalink, bringing out this new innovative service, as well as catering to the needs of our subscribers."

Comprende is based on Globalink's proprietary Barcelona translation technology that uses language rules to analyze, synthesize, and translate text. Once logged on to Comprende, subscribers will use the Globalink Comprende server system to retrieve Web pages, e-mail messages, and newsgroup threads or to engage in chat on demand, receiving translated copy almost immediately.

Globalink's high speed server uses T-1 and T-3 lines feeding into redundant backbone network hubs. As the service develops, regional server farms will be added to increase user throughput. These mirror sites will be distributed around the world to speed access to the servers.

Internet users can access Comprende immediately for a free beta-test period at <http://comprende.globalink.com>. After the beta period ends, Comprende will be available at a flat monthly fee of \$19.95 for the basic service and \$49.95 for the premium service. Both services include the initial five language pairs. The basic service covers Website content only; the premium service includes newsgroup translations of chat and e-mail, together with a wide range of personalized and business options.

Globalink is headquartered in Fairfax, Virginia, and has a research operation in San Diego, CA.

Globalink Engine Supports Yellow Pages ONLINE

BellSouth IntelliVentures, the electronic publishing arm of BellSouth Advertising and Publishing Company, has signed an agreement to use Globalink's Barcelona translation technology with its Internet yellow pages product. Under the agreement, IntelliVentures will integrate Barcelona translation technology into The Real Yellow Pages[®] ONLINE (www.yp.bellsouth.com), to provide dynamic translation of the Website into Spanish. Additional languages are planned for implementation in the future.

"Globalink's software will provide us with the instantaneous translation capability we need in order to reach a broader audience. The software enables us to start providing information to our non-English-speaking customers immediately," said Gary Prophitt, president of BellSouth IntelliVentures. The software will be installed and integrated over the next several months to ensure full access to The Real Yellow Pages Online for all Spanish-speaking customers.

Harry Hagerty, Chairman and CEO for Globalink, is equally enthusiastic about this cooperative venture: "The multilingual needs of commercial Websites are staggering. With the rate of content going up on the Web, there is a tremendous demand for our translation software. We are pleased that BellSouth has chosen our Barcelona software to help address their Spanish-speaking market. As we continue to develop server-based translation solutions for the corporate market, we anticipate that more and more business-oriented sites will be looking to use our technology."

Globalink now offers a full range of translation products for the Internet, from its recently announced Comprende subscription service (<http://comprende.globalink.com>) to integration of its Barcelona technology on the server for sites such as The Real Yellow Pages ONLINE.

BellSouth (NYSE: BLS) is a \$19 billion communications services company. It provides telecommunications, wireless communications, video, Internet, and information services to more than 28 million customers in 20 countries worldwide.

Globalink Nominated for Smithsonian Award

In February Intel Corporation nominated Globalink, Inc., for a Computerworld Smithsonian Award. Each year the Computerworld Smithsonian Awards Program identifies and honors visionary use of information technology that produces positive social, economic, and educational change. These awards, chosen by chairmen of the nation's leading information technology companies, are accorded permanent recognition in the Smithsonian Institution's National Museum of American History.

IAMT Creates Award: Nagao First Recipient

Acting on a proposal advanced last year by EAMT President John Hutchins, the IAMT Council has created the "IAMT Award of Honor," which recognizes an individual who has made an outstanding contribution to the field of machine translation. The award is to be presented biennially at the MT Summit conferences. The full text of the Council's decision may be found in the minutes of the IV General Assembly (pages 11-12).

The first award, presented at MT Summit VI in October 1997, was accompanied by a cash prize of US\$ 1,500, donated by the Danish firm Hofman-Bang A/S in view of the benefit it has derived from using the PaTrans machine translation system.

The first Award of Honor was conferred in San Diego to Professor Makoto Nagao, the Council's unanimous choice. It took the form of an artistically shaped piece of crystal with an inscription that recognizes his enduring contribution to the field. The mon-

Craig R. Barrett, Chief Operating Officer/Executive Vice-President of Intel Corporation, nominated Globalink's automated language translation technology in the Education and Academia category. Barrett, a member of the Smithsonian Awards Chairmen's Committee, felt that Globalink's innovative use of information technology was of great historical value and worthy of being included in the permanent research collection at the Smithsonian Institution. The Chairmen's Committee consists of more than 100 executive leaders of prominent information technology and telecommunications companies in the United States.



Makoto Nagao (left) poses with IAMT Award of Honor and Hozumi Tanaka, president of AAMT, now also incoming president of IAMT.

etary prize was presented by Viggo Hansen on behalf of Hofman-Bang. Professor Nagao donated the prize to the IAMT Council, for which the Council has formally thanked him and expressed its appreciation of his leadership and moral support over the years.

MT Summit VI - Marks Milestones

MT

More than one milestone was celebrated in San Diego at Machine Translation Summit VI (Catamaran Resort Hotel, October 19-November 1, 1997). First and foremost, the conference highlighted the 50th anniversary of machine translation history. It also marked the first full cycle of globe-trotting for the Summit series under the aegis of the International Association for Machine Translation (IAMT), and the second full cycle since the concept was first introduced at Hakone, Japan, in 1987. Also, Summit VI inaugurated the IAMT Award for contributions to the field of machine translation. Noted speakers from around the world addressed the three phases of the theme: "Machine Translation: Past, Present, Future."



Keynoter Tom Pedike and Proceedings Editor Beth Sundheim pause between courses at the banquet.



MT Pioneers (left to right) Loll Rolling, Peter Toma, Muriel Vasconcellos, Victor Yngve



MT Pioneers (left to right) Roger Heller, Tony Brown, Igor Mel'čuk, Alex Zholkovskiy, Chris Montgomery.

and a number of social events turned the occasion into a true celebration.

The Association for Machine Translation in the Americas (AMTA) took responsibility for Summit VI on behalf of IAMT, and the Information Sciences Institute of the University of Southern California served as institutional host. In all, the conference had a total of 21 sponsors: eight U.S. Government agencies, three associations, six corporations, and four individuals. Muriel Vasconcellos, outgoing President of IAMT, held the title of General Chair; Winfield Scott Bennett of Logos Corporation did an admirable job as Program Chair; Laurie Gerber of Systran Software took responsibility for a vast range of duties as Local Arrangements Chair; Kimberly Belvin served as Exhibits Coordinator; Deborah Becker, AMTA/IAMT Focal Point, acted in the capacity of Registrar; and Jane Morgan Zorrilla was the official graphics designer.

The turnout was impressive: in addition to 340 registrants, there was an unprecedented number of exhibitors, not included in the registration count, and traveling companions had been invited to sit in on some of the sessions, making for a total attendance close to 400. The registered participants came from 23 countries.

The Program

Program Chair Scott Bennett assembled a rich program of workshops, tutorials, invited speeches, technical talks, refereed papers, and system presentations. Much of the time there were parallel sessions--for example, a system presentation opposite a theoretical paper. In addition to the invited presentations there were 24 invited talks, 13 refereed papers, and 20 system presentations.

The pre-conference events began on Tuesday, 28 October, with two all-day workshops--one on interlinguas for MT, organized by Stephen Helmreich, and one on data exchange standards for translation technology products, organized by Alan Melby. Wednesday, October 29, was given over to four tutorials: "A Gentle Introduction to Machine Translation" (Eduard Hovy); "Making MT Work for You" (Marjorie León); "MT Evaluation: Old, New, and Recycled Methods" (John White); and "Postediting MT" (Karin Spalink).

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MT Summit VI

MACHINE TRANSLATION:

Past
Present
Future



San Diego, California

29 October - 1 November 1997



The conference secretariat (left to right), Deborah Becker, registrar; Jacque Hannibal, volunteer; Kim Belyin, exhibit coordinator; and Laurie Gerber, local arrangements chair



Igor Mel'nik entertains with stories of research in the Soviet Union



UWII delegation with Makoto Nagao holding IJMT Award of Honor



Colin Brace (far left) and John O'Hara pay rapt attention to MT Pioneer Peter Yoma.



MT Pioneer Tony Brown (far right) tells a story to Veronica Lawson while Muriel Vasconcellos listens



Raffle Organizer Uki MacIsaac (far left) pulls out a ticket for John White to announce as Muriel Vasconcellos walks away with her prize.



AAMT President Hozumi Tanaka (far left) makes a point to Laurie Gerber and AMTA President Eduard Hovy.



Polynesian dancers at the luau enlist a volunteer from the audience.

During the conference proper--on Thursday, Friday, and Saturday--there was a heavy schedule of presentations. The plenaries included the keynote by Thomas Pedtke of the National Air Intelligence Center; a panel of eight MT pioneers; and invited speeches by John Hutchins of the University of East Anglia ("First Steps in Mechanical Translation"), Harold Somers of the University of Manchester ("The Current State of Machine Translation"), and Bente Maegaard of the Center for Language Technology in Denmark ("Whither MT?").

Thomas Pedtke's keynote set the tone for the conference and held the audience's riveted attention. Tom reviewed the U.S. Government's four decades of commitment to machine translation, which have mirrored such major world trends as the Sputnik scare, Detente, the expansion of U.S. markets abroad, Glasnost and the collapse of the former Soviet Union, and now the explosion of on-line activity, including the Government's networks that have made MT systems available to tens of thousands of users. Especially delightful was Tom's conception of a realistic logo for today's MT users--the outer arch of which was a horseshoe!

MT Past: Tales from the Pioneers

The panel "The Pioneers of Machine Translation" featured eight of the early figures in the field. The session opened with a video greeting from Andrew Booth (unable to attend the conference for health reasons), whose involvement in machine translation dates back to the very beginning, half a century ago. Most of the pioneers who were present (including the panel chair, Muriel Vasconcellos) had associations with MT that went back at least 40 years. Speaking in chronological order of their entrance on the MT scene, the panelists were Victor Yngve, Igor Mel'čuk, Alexander Zholkovsky, Christine Montgomery, Peter Toma, A.F.R. Brown, Roger Heller, and Loll Rolling.

Victor Yngve told about his work as an MT researcher at the Massachusetts Institute of Technology starting in 1953. He was the first person to be employed full-time in the field. While at MIT, he founded the journal *Machine Translation*, which ran from 1955 to 1968, and co-founded the Association for Machine Translation and Computational Linguistics (today the Association for Computational Linguistics).

Igor Mel'čuk and Alexander Zholkovsky told stories about work on MT in the former Soviet Union in the fifties and sixties--a time when most of their research was "unencumbered" by machines (since computers were not available to them).

Georgetown University was represented by Christine Montgomery, who had worked with Paul Garvin, the linguist responsible for the famous Georgetown-IBM experiment in 1954; Peter Toma, who invented SYSTRAN, the first commercial MT system, a decade later; A.F.R. Brown; and Roger Heller.

Loll Rolling, who introduced machine translation at the Commission of the European Communities, reviewed the emergence of MT in Europe.

MT Present

Of course, the bulk of the presentations were aimed at giving a view of machine translation today. The overwhelming majority of invited

talks and refereed papers addressed the practical aspects of using MT in real settings. The titles included "MT from the Production Perspective" (Mary Flanagan of CompuServe and Frederike Bruckert of Logos), "Managing Distributed MT Projects" (Jennifer Brundage et al.), "Translating Scientific Texts Using MT and MAT Systems" (Vladimir Petrov for Olga Bezhanova), "Sharable Formats and Their Supporting Environments for Exchanging User Dictionaries among Different MT Systems" (Shin-Ichiro Kamei, et al.), "Production MT in the Public Agencies" (Dimitri Theologitis of the European Commission and Joel Ross of the U.S. Foreign Broadcast Information Service), "MT as a Commercial Service" (Terence Lewis et al.), "Using MT in a Corporate Setting" (Lou Cremers of Océ and Christine Kamprath of Caterpillar), and "The MT Market Perspective" (L. Chris Miller of Multilingual Computing Solutions, Colin Brace of Language Industry Monitor, and Yuko Shimamoto-Caleo of Fidelity Management & Research).

In addition, the presidents of the three major commercial MT systems-- Thomas Lueck of Logos, Denis Gachot of Systran, and Harry Hagerty and other colleagues from Globalink--took a look at current and future trends in "The Shape of Commercial MT Systems."

MT Future

The future trajectory of machine translation begins, of course, with the research and development going on today. In keeping with Summit tradition, the reviews of current R&D provided an overview of the work that is being undertaken--and the paths being charted--around the world: "MT R&D in Europe" (Peter Quartier of Lotus and Roger Havenith of the European Commission), "MT R&D in Asia" (Hozumi Tanaka of the Tokyo Institute of Technology and Keh-Yin Su of BCG), and "MT R&D in North America" (Eduard Hovy of the University of Southern California Information Sciences Institute and Elliott Macklovitch of the University of Montreal). The session on "R&D for Commercial MT" (Gregor Thurmair of Gesellschaft Multilinguale Systeme [GMS] and Laurie Gerber of Systran) gave special attention to the commercial aspect.

Other ongoing research was reported under the headings "Machine Translation

through Language Understanding" (Makoto Nagao of Kyoto University), "JEIDA's Bilingual Corpus and Other Corpora for NLP Research in Japan" (Hitoshi Isahara of JEIDA), "Multilingual Spoken Dialogic Translation System Using Translator-Drive Machine Translation" (Hideki Mima et al of ATR Interpreting Telecommunications Research Laboratories), and "User-Friendly Machine Translation: Alternate Translations based on Differing Beliefs" (David Farwell and Stephen Helmreich of New Mexico State University).

MT users were asked what developments they would like to see in the future, and their answers were heard in the session "What Do Users Need from MT Systems?" (Edith Westfall of Multilingual Computing Solutions and Michael Marubio of Logos). Bente Maegaard provided an excellent summary of future trends that can be expected, based on what she sees as the "pull" of the market.

System Demonstrations and Exhibits

Of the 20 system presentations, 17 included live screen displays. There were also 26 exhibitors, most of whom offered one-on-one demonstrations of some form of MT or MT-related software.

In addition to the commercial exhibitors, research projects were given the opportunity to give tabletop demonstrations. One that was of particular interest was the U.S. Army Research Laboratory's new FALCon system. FALCon converts foreign-language documents into an approximate English translation, allowing U.S. forces to assess the military significance of documents captured in the field and determine whether to pass them to a linguist for full translation and analysis.

Social Events

The technical program was only part of the MTT Summit VI experience. The social program was delightful. On Tuesday, October 28, a large group of Summit-goers and their companions headed south of the border on an excursion to Ensenada, Mexico, which was pronounced to be a highly successful event. Then on Wednesday evening came the glittering 50th Anniversary Reception, sponsored by Logos Corporation, which launched the conference and offered the participants a chance to win a real diamond (the winner: Robert Frederking of Carnegie Mellon University).

A large selection of useful prizes, donated by corporate members, participants, and other companies, were raffled off during a cruise of Mission Bay on Thursday aboard the sternwheeler "Wm. D. Evans," sponsored by Systran Software. The cruise was followed by a luau on the beach, complete with Polynesian dancers and a bonfire, sponsored by Globalink.

Finally, the elegant banquet on Friday evening featured a piano recital by famed composer and recording artist Tom Barabas and an audience-participation event emceed by John White with the assistance of Dale Bostad.

Conclusion

Views differ on whether or not there has been real progress in MT, and Summit VI did not provide definitive answers. It did bring evidence that MT use on the Internet is already impressive, and the experience so far points to a potential in this area that staggers the imagination. The growth of Websites in languages other than English has produced a demand for "gisting" tools that produce "indicative" translations of Web pages or blocks of text from a site. Publication quality is not essential, but instant turnaround is all-important, so machine translation fits well with this task. This is true especially as retail prices for MT, whether downloaded or in a shrink-wrapped box, continue to tumble while competitors vie for segments of this large market.

Research is becoming more practical and practitioners are becoming more sophisticated. Related tools are lending new power to MT by opening up further ways in which it can be used. Research moves faster using off-the-shelf pieces that have already been developed elsewhere. Approaches are being integrated. The Carnegie Mellon system for translating broadcast captions is a good example of integration of various techniques. If a knowledge-based translation of a segment of text fails and the segment is not found in the translation memory database, an example-based translation may be used if there is a similar segment in the database. As a last resort, a word-for-word dictionary lookup translation is supplied.

All these developments are significant, even if no one can say exactly what they mean. There were those at the Summit who

questioned whether the new developments actually translate as "progress." Elliott Macklovitch (see "Commentary" below), who has been a careful observer of MT for a very long time, still considers that the emperor remains unclothed. "Progress" in MT can be measured in so many different ways. The perspective of researchers, commercial developers, users, and even consultants is, in each case, necessarily shaped by their particular expectations and the prism through which they watch the MT field grow.

And that's as it should be. The purpose of the Summit is to bring people together to exchange their knowledge and experience--to get to know more about one another. All will undoubtedly agree that in this sense MT Summit VI was an unqualified success.

MT Summit VI: An Opinionated View

Elliott Macklovitch

I have this distinct childhood memory: I'm in first-grade art class, working away diligently with my crayons. The teacher, who has been walking up and down the aisles, stops above my desk and asks me what I'm drawing. "It's a house," I respond proudly. "But it looks like a mountain," she says. "Yeah, yeah." I scramble to correct myself. "That's what I meant to say: it's a mountain."

This recollection came back to me recently while I was attending the MT Summit VI in San Diego. The Summit was billed as a celebration of the first fifty years of machine translation, and the retrospective it afforded of MT's changing self-image over that period reminded me of the kind of embarrassed rectification that I had made in first grade. What began as a noble quest to fully automate translation (thereby rendering the translator redundant) was soon recast as a pragmatic effort to increase translators' productivity by providing raw machine output that they would merely have to polish up. And now along comes the market--the severest teacher of them all--and it tells us that

what we had hoped we could turn into publication-quality translation is not really that at all, but is best viewed as an aid to comprehension, or a rough approximation of a foreign-language text.

"Yeah, that's what we meant all along: it's a mountain."

An out-and-out cynic might say that, while our field's self-image has changed radically over the years, what hasn't changed is the quality of the raw translations that MT systems produce. But I'm not an out-and-out cynic; I'm just a skeptic, and I would have to say that that is an unfair judgment. Generally speaking, the quality of the translations produced by today's best systems is better than that which their ancestors cranked out ten or fifteen years ago, and certainly much better than the word-for-word gibberish spouted by the dinosaurs of the fifties and sixties. True, these improvements have not been as substantial as we might have hoped. Novices still tend to react to raw MT output with mirth or bewilderment, and this, as Professor Tanaka says in his report on a JEIDA users' survey, is surely an embarrassment for the field as a whole. Perhaps we should heed the words of Logos' Tom Lück, who told his audience "Everybody's lying in this business," pay less attention to the glowing image that our spokesmen attempt to project of the MT enterprise, and concentrate instead on what people actually do with machine translation. In this regard, Denis Gachot's remark during his panel presentation at the Summit was most telling: gisting for the intelligence services, he said in sum, has always been Systran's bread and butter.

So when I read the conclusion of Alan Melby's report on the Summit that appeared in *Language International* 9.6, I couldn't help but roll my eyes heavenward in disbelief. "Conspicuously absent was the announcement of any fundamental breakthroughs in how to improve the quality of machine translation of dynamic general language." C'mon Alan! You and I have been in this field too long to still expect any spectacular breakthroughs. We all know what the obstacles are to "fully automatic high-quality translation": a range of knowledge, a

level of comprehension, and an ability to reason which approximate the level of even the dullest human translator. These are not the sort of problems that will suddenly dissolve before a God-sent flash of insight. We know, too, that the modest progress that *has* been registered in machine translation over the years comes principally as the result of slow and steady increments in dictionary coverage and parsing robustness: "little steps for little feet," as Martin Kay once put it.

In any case, how can we possibly expect fundamental breakthroughs when there is so little research being done in machine translation these days? According to Eduard Hovy, only five universities in all of the United States have research groups pursuing programs devoted in whole or in part to MT. And the situation is no better in Europe, according to Roger Havenith: recent EC calls for the Language Engineering Program have elicited very few fundable MT projects there.

This dearth of MT research may explain why the most interesting presentations at the Summit (in my necessarily partial opinion) were not theoretical in orientation, but rather described new applications, or niches, for what is now a standard and very much sub-optimal technology. One example that immediately comes to mind is the real-time translation of closed-captions for TV and videos.

In fact, two systems at the Summit were presented that aim to provide this service: one, a project from CMU, and the other, a packaged consumer product that is already being sold by TCC Communications. Interestingly, the latter's market studies seem to suggest that end-users may well be prepared to accept less-than-perfect translations of closed-captions, particularly when the alternative is no translation at all. In this respect, their attitude is quite similar to that of the many people who are currently using MT to gist the content of foreign-language Websites--and in marked contrast to the reactions of most professional translators when they are first confronted with raw MT.

A few weeks after I returned home from the Summit, I happened to meet a university professor who is an expert in computer chess; in fact, he had consulted for the bad guys in their preparation for Deep Blue's recent

continued on page 10...

victory over Grand Master Kasparov. In the course of our conversation, he asked me what field I work in, and so I told him, taking care to point out that natural language was not like chess, in that its generative capacities were infinite. "Sure," he smiled, "but if you had a machine with sufficient memory and fast enough access, then you could store billions and billions of sentences, along with their translations, then maybe . . ."

Of course, we all know that colourless green ideas sleep furiously--or at least they used to. But the point for an applied science like machine translation is not the potential for creativity inherent in natural language, but rather the extent to which our routine, daily use of language tends to be repetitive.

Judging from many of the presentations at the Summit, moreover, the one application of translation automation that has proven to be universally productive in recent years is indeed translation memory. It won't be long before we all have access to machines with the capacity alluded to by my chess-playing friend: computers that are all memory and no brains. Well then, maybe he's right: maybe that *is* the answer. Or at least as close to the answer as we'll ever get . . . Now what was the question again?

Elliott Macklovitch, University of Montreal, can be reached at macklovi@iro.umontreal.ca.

Systems and Products

Three New Products from SYSTRAN

[Based on press releases]

SYSTRAN Software, Inc., now has a full line of cutting-edge products that address three major MT market niches. SYSTRAN PROfessional[®] for Windows, the heavy-duty workhorse used by large translation services, was recently updated to Version 2.0. At the same time, the company's new SYSTRAN Classic[®] for Windows is powerful translation software offered at a price-point that makes it affordable to the individual or small business owner. And now SYSTRAN Personal[®] for Windows, designed to be used on texts up to 5K at one time, brings similar translation power to the mass market. SYSTRAN Personal[®] is already available in a downloadable version from the company's Website and the AltaVista Translation Service, and shipping of the shrink-wrapped version will start on 15 June 1998.

SYSTRAN PROfessional[®]

The MT software used by such organizations as the U.S. Department of Defense, the Commission of the European Communities, Xerox Corporation, Ford Motor Company, and Dow Corning Corporation, SYSTRAN PROfessional[®] for Windows translates 150,000 words per hour with a Pentium processor. It is available for both Windows

95 and Windows NT. Version 2.0 adds a new user interface, compatibility with translation memory tools, multi-tasking, and the ability to function with a variety of other programs, such as Microsoft Word and Eudora Mail. The program is capable of sending multiple files for translation with a single keystroke. Users can translate documents in real time, whether they be a word-processing file, e-mail, or a downloaded Website.

SYSTRAN PRO offers the most-requested language pairs, including English from/into French, Italian, German, Spanish, Portuguese, and Japanese. Additional language pairs are currently under development. Subject-specific subdictionaries are available for 21 different industries in most of the language pairs. The U.S. Department of Defense's Advanced Research Project Agency and the Commission of the European Communities have determined that SYSTRAN products "set the standard" for quality in machine translation.

Minimum system requirements: 486 Intel or compatible, Windows 95 or Windows NT, 16 MB RAM recommended, 15 MB hard disk space (per language pair), 20 MB swap file size. Price: US\$995 per language pair.

SYSTRAN Classic[®]

Recently the company launched its more affordable SYSTRAN Classic[®] for Win-

dows, which has similar translation power and gives the user the choice of either translating directly on-screen, viewing both source and target languages in the same screen, or sending a single file for translation with the click of a key. A native 32-bit program, it also translates with the same speed as SYSTRAN PRO.

The language pairs offered are English from/into French, Italian, German, Spanish, and Portuguese. The word/phrase dictionaries are among the largest available. The program retains the original document format with no pre-editing required. The source text can be RTF, ASCII, ANSI, or HTML files.

SYSTRAN Classic[®] is being distributed through a worldwide network of resellers and distributors.

Minimum system requirements: 486 Intel or compatible; Windows 3.1, Windows 95, or Windows NT; 16 MB RAM recommended, 15 MB hard disk space (per language pair), 20 MB swap file size. Price: US\$395 per bidirectional language pair.

SYSTRAN Personal[®]

As this issue of *MTNI* went to press, the company had just launched an even more affordable product, SYSTRAN Personal[®], which translates plain text cut or copied to the clipboard. It is fully automatic. When the computer returns the translation, the output can be pasted into any application. The product is intended for occasional use, such as personal letters, journal articles, Websites, e-mail, etc.

This tool brings to bear the same power and quality that stand behind SYSTRAN PRO and SYSTRAN Classic. SYSTRAN Personal is available in English into and/or from French, Italian, German, Spanish, and Portuguese. It runs under Windows 3.1, Windows NT, and Unix. The price: US\$29/ unidirectional and \$49 for bidirectional language pairs.

SYSTRAN Personal may be downloaded at the company's Website, www.systransoft.com, or the AltaVista Translation Service at www.babelfish.altavista.digital.com.

Information: Reba Rosenbluth, Director, Sales and Marketing, SYSTRAN Translation Software (tel: +1 (619) 459-6700; e-mail: rosenbluth@systransoft.com).

Association News

IV General Assembly of IAMT Meets in San Diego

Transcribed below are the minutes of the IV General Assembly of the International Association for Machine Translation, held at the Catamaran Resort Hotel, San Diego, California, on Friday, 31 October 1997.

The meeting was called to order at 4:17 p.m. The agenda was adopted. The minutes of the III General Assembly (Luxembourg, 1995) were read and adopted.

In the report on MT Summit, General Chair Muriel Vasconcellos announced that there were at least 340 registrants not counting exhibitors and that the total attendance was probably close to 400. Representatives from 23 countries had registered. Program Chair W. Scott Bennett reported that there were 15 system presentations, 13 refereed papers from 20 submitted. There were 7 Asian presenters, 20 North Americans, and 20 from Europe. Among the exhibitors, 7 were from Asian, 20 from North America, 3 from Europe, and 1 from Africa. Bennett solicited feedback on the conference, to be directed to him at scottb@logos-usa.com

In the Treasurer's report, Roberta Merchant stated that current funds on hand totaled approximately U.S\$ 14,000, however, there were several outstanding invoices and payments. Invoices not received totaled approximately \$3,000, while income not yet received came to \$7,116. The major expense of the IAMT is the publication of *MT News*. Merchant acknowledged with thanks the generous donation of \$1,500 from Makoto Nagao.

AAMT President Hozumi Tanaka reported that the AAMT has 190 members including 33 corporations. The financial state of the AAMT is healthy, even though membership has decreased. The AAMT has sponsored many activities, among them a Universal Platform working group, a two-year effort which may result in financial assistance for AAMT. The AAMT has held five workshops in the last two years, with about 100 participants at each. Prof. Tanaka has become President of the AAMT; the Secretary-General position has passed to Yusio

Nakajima; and Jun-ichi Tsujii has been elected Vice President. The AAMT publishes a quarterly journal.

The AMTA report was presented by its president, Eduard Hovy, who noted that AMTA membership had remained stable for the last two years at just under 200. The treasury has also remained constant at around \$50,000. The AMTA had its second biennial conference in Montreal in October 1996. There are two active Special Interest Groups, on interlinguas and standards. The conference on Theoretical and Methodological Issues in MT was held in Santa Fe, New Mexico, in July 1997. Hovy noted that pure research in MT is in good shape in the United States.

John Hutchins, reporting as president of the EAMT, noted that there had been two workshops since MT Summit V, one in Vienna in 1996 and one in Copenhagen in 1997. Each was attended by approximately 60 people. Another was planned for Geneva in April. The EAMT is making plans for hosting MT Summit VIII in 2001 and is currently soliciting bids for venue. The number of members has risen to just above 100, the increase owing in part to a brochure and Website maintained by Colin Brace. The Website is being expanded for the IAMT as well. The EAMT treasury maintains about SwFr. 30,000. Doris Marty-Albisser, treasurer of the EAMT, will step down in 1998.

John White reported the actions of the 6th IAMT Council meeting, which was held on 31 October 31 1997 from 11:30 a.m. to 2:00 p.m.

The Council had passed the following motions:

Motion. That the Council express our warm appreciation to Professor Nagao for his generous financial contribution to the IAMT.

Motion. That Muriel Vasconcellos and Colin Brace be appointed co-editors of *MT News International*.

Motion. That the Council form a study group to investigate the feasibility of recommending criteria for an "IAMT Seal of Approval."

Motion. That the Council extend its thanks to Viggo Hansen for the monetary award associated with the first IAMT Award of Honor.

Motion. That the Council approve a closer tie between IAMT and the journal *Machine Translation*, with details and proposals to be presented to the IAMT Council in the next few months.

Motion. That the Council extend its thanks to Muriel Vasconcellos for her tireless work as president of the IAMT.

The Council had moved to ask the Assembly to amend Article 3 of the IAMT Bylaws, as follows:

ARTICLE 3. MEMBERSHIP

Substitute the following passage:

All matters relating to membership shall be decided by the regional divisions through their duly constituted associations, which shall contribute ten percent (10%) of their total membership dues to support the regular operations of the IAMT.

with the following:

All matters relating to membership shall be decided by the regional divisions through their duly constituted associations, which shall contribute an amount equal to ten percent (10%) of the value of dues of the individual membership to support the regular operations of the IAMT.

The amendment to the Bylaws was moved and seconded. In discussion, it was explained that the amendment was intended to rectify an inequity related to the fact that AAMT has a proportionately larger number of corporate sponsors, whose dues are much higher, resulting in a proportionately higher dues obligation for the AAMT.

An amendment was moved as follows:

Insert after the words *...dues of the individual membership* the words *times the total number of members*.

The amendment to the Bylaws amendment was seconded and passed. The overall amendment to the Bylaws passed.

The Council had also moved to ask the Assembly to amend the Bylaws to include a section on Awards, as follows.

continued on page 12...

ARTICLE 15. AWARDS

The IAMT Council shall confer an award on the occasion of its biennial "MT Summit" conference to the individual member who in its opinion has made an outstanding contribution to the promotion and development of machine translation and/or to the aims and objectives of IAMT as defined in Article 2 of the association's Bylaws. Nominations for the award may be made to the Council by any member of IAMT and seconded by two other members, not less than six months before the next MT Summit conference. The name of the award shall be the "IAMT Award of Honor."

The amendment to the Bylaws was moved and seconded. An amendment to the motion was offered to this effect:

Replace the words *six months* with *three months*.

The amendment passed. There was discussion concerning the usage of the word "promotion." The overall amendment to the Bylaws was passed, with the understanding that it would be editorially changed with a more appropriate word.

The report of Council actions continued with a presentation of other business and issues. An issue addressed by the Council concerning the enforcement of MT patents was discussed by the Assembly. The Council would seek legal advice about patent matters.

The Council had also discussed the pro-

liferation of free translation services and the effects upon research and the impact on the reputation of MT caused by poor quality systems on-line. The Council had passed a motion to form a task force to investigate an IAMT Seal of Approval. The Council had also discussed the relationship of IAMT to the de facto organ journal *Machine Translation*.

Following the presentation on Council actions, the IAMT announced the new officers for the next biennium.

Hozumi Tanaka, President

John Hutchins, President-Elect

President Muriel Vasconcellos yielded the floor to the new president, Hozumi Tanaka. Prof. Tanaka expressed his thanks to Dr. Vasconcellos for her years of service to the Association.

In new business, Christine Montgomery noted that the Pioneers have archives of perishable materials and are concerned about seeing an archive established.

A motion was offered to thank Laurie Gerber, W. Scott Bennett, and Muriel Vasconcellos for their extraordinary efforts toward ensuring a successful MT Summit VI. The motion passed unanimously.

The Assembly was adjourned at 5:35 P.M.

Respectfully submitted,

John S. White, Secretary

numerous IAMT and AMTA events, including the Evaluation Workshop in San Diego (1992), AMTA-94 (Columbia, MD), AMTA-96 (Montreal), and Summit VI in San Diego (1997).

During part of this time Deanna was also president of the American Translators Association and an officer in the International Federation of Translators. Her openness to machine translation not only led her to take an interest in getting the MT associations off the ground but also served as an inspiration for translators to take the technology seriously.

For 20 years Deanna was head of Language Services at the Congressional Research Service and oversaw all translations prepared for the U.S. Congress. She also taught graduate courses in Spanish translation at The American University in the early 1990s and at George Mason University from 1993 onward. A gifted linguist with a Ph.D. in Spanish from Georgetown University, she published extensively on professional issues in the field of translation. In 1992 Deanna received the Alexander Gode Medal for distinguished service to the translation profession. Posthumously the Library of Congress awarded her the Commendation for Distinguished Service--its highest honor.

Deanna is survived by her husband, Bill Fry, who often served as exhibits coordinator for our meetings and is well known to many MT-ites.

MV & JMZ

People

Deanna Hammond (1942-1997)

Deanna Lindberg Hammond, one of the original founders of AMTA, died of pancreatic cancer on 11 October 1997 at her home in Alexandria, Virginia.

Deanna made many contributions to IAMT and AMTA. In addition to providing her support and valuable advice from the very beginning, she participated in drafting the Articles of Incorporation for both associations, and in each case she signed as one of the original incorporators. Afterwards she provided intensive mentoring during the development of bylaws for the two associations. Working in the background, she took an active part in organizing



Nagao Assumes High Post

Professor Hozumi Tanaka, president of AAMT and IAMT, is honored to announce that Professor Makoto Nagao, founder of AAMT and IAMT, became president of Kyoto University on 6 December 1997.



Professor Nagao obtained his engineering degree and also his M.S. and Ph.D. degrees from Kyoto University, where he

began his teaching career in 1961. Rising through the ranks in the Department of Electrical Engineering, he became full professor of Electronics and Communication in 1973 and ultimately dean of its faculty. He also served as adjunct professor at the National Museum of Ethnology from 1976 to 1994. In 1995 he was appointed to the posts of director of the Kyoto University Library and vice president of the University. He has published numerous works in his areas of interest, which include, in addition to machine translation and natural language processing, artificial intelligence, pattern recognition, image processing, and multimedia information retrieval.

As founder of AAMT and the prime force behind the creation of IAMT, Professor Nagao was the IAMT Council's unanimous choice for the first IAMT Award of Honor (see separate story on page 4).

MT

Bennett Now Logos Marketing Director

[Based on press release]

Logos Corporation has announced the appointment of Winfield Scott Bennett as Director of Marketing effective 15 January 1998. "Scott" Bennett joined Logos in 1993 and most recently held the position of Director of Institutional/Governmental Relations. In addition, he has been involved in linguistic development, customer support, and quality assurance at Logos. He has been an active and well-known member of the MT community for the last 18 years, lecturing and publishing papers on both theoretical and practical issues. Recently he was Program Chair of MT Summit VI.

Scott Bennett has worked for AMTA and IAMT since their inception. One of the original incorporators of both associations, he served as secretary of AMTA and as a member of the IAMT Council for six years. He has repeatedly demonstrated his commitment to the principle on which they were founded--namely, open exchange between MT researchers, developers, and users, all recognized on an equal footing. His own career--first as an academic at the University of Texas, Austin, then as a commercial developer and always as a trusted supporter

and ally of MT users--is a living example of that tripartite spirit.

MT

Gdaniec Joins IBM Team

Claudia Gdaniec, former Treasurer of AMTA, joined the LMT group at IBM's Thomas J. Watson Research Center in July 1997. She is working with Michael McCord as a research associate.

Dr. Gdaniec was a senior computational linguist with Logos Corporation for more than 10 years.

Westfall Joins Trados

Edith Westfall joined TRADOS Corporation in the Alexandria, VA office in May 1998 as the Regional Director of Sales, US East. Ms. Westfall's experience in the evaluation and implementation of language software/technology will be an asset to TRADOS customers. In addition, she has extensive experience with the translation process from both a business and a workflow perspective. Ms. Westfall can be reached at edith@trados.com, or 703-683-6900.

Previously, Ms. Westfall was a principal with Multilingual Computing Solutions, Inc. in Washington, DC.

Conference Announcements

Coling-ACL'98

Montreal

10-14 August 1998

The 17th International Conference on Computational Linguistics and the 36th Annual Meeting of the Association for Computational Linguistics are being hosted this year by the RALI Laboratory (Laboratoire de Recherche Appliquée en Linguistique Informatique), Department of Computer Science and Operations Research, University of Montreal.

The two conferences that comprise this event, to be held on the University's campus 10-14 August 1998, are sponsored, respectively, by the International Committee on Computational Linguistics (ICCL) and the Association for Computational Linguistics (ACL). Coling returns to North America for the first time since the joint Coling-ACL'84 was held at Stanford University in 1984.

Program chair Christian Boitet and co-chair Peter Whallock have announced that the program will be organized around the following main areas.

- Linguistic issues and associated formalisms
- Morphology and phonology
- Syntax and parsing
- Semantics, pragmatics, cognition

- Discourse and dialogue
- Linguistic resources and computational methods
- Corpus processing and empirical methods
- Lexical resources and computational lexicography
- Computational paradigms (symbolic, stochastic, neural, hybrid)
- Languages, tools and environments for language development
- Applications
 - Form checking (spelling, terminology, grammar, style)
 - Summarization, abstraction, generation
 - Text and speech machine translation and translation aids
 - Multimodal NLP (speech and dialogue processing, integration of speech, text, gestures)
 - Text and speech information retrieval and categorization, electronic libraries
- Projects
 - Large R&D cooperative projects
 - Validation and testing programmes
 - Small scale innovative research projects
 - Others

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Further details about the conference will soon be available from the program co-chairs and Pierre Isabelle, chair of the organizing committee (coling-ac198@iro.umontreal.ca).

AMTA-98: Machine Translation and the Information Soup **(MT in a Growing Field of Language Technologies)** **Langhorne, Pennsylvania** **28-31 October 1998**

The Association for Machine Translation in the Americas has convened AMTA-98: "Machine Translation and the Information Soup," the third conference in its biennial series, to be held at the Sheraton Bucks County Hotel in Langhorne, Pennsylvania, on 28-31 October 1998, with tutorials and welcoming reception on Wednesday, 28 October, and preconference workshops scheduled for Tuesday, 27 October. The conference will focus on the multilingual aspects of language technologies being used increasingly on the Internet, including machine translation, information retrieval, text summarization, speech recognition, and others. As in the past, there will be invited speakers, panel discussions, papers by researchers and developers, workshops, tutorials, and more.

AMTA invites all who are interested in any aspect of machine translation—developers, researchers, users, and watchers—to attend this conference. Participation by members of AMTA's sister organizations, AAMT in Asia and EAMT in Europe, is strongly encouraged, and people working in related areas, such as information retrieval and summarization, are very welcome to attend.

The Program

Program Chairs Laurie Gerber (SYSTRAN Software, Inc.) and David Farwell (New Mexico State University) have put together a rich variety of presentations and events that will consider machine translation in the context of a rapidly growing field of language technologies. Featured speakers will

include, among others, Gaston Bastiaens (Lernout & Hauspie) on "The International Business of MT"; Gary Strong (National Science Foundation) on "Situating MT in the Information Soup"; Gary Grefenstette (Xerox Research), on "MT-Related Technologies—Information Retrieval"; and Pascale Fung (Hong Kong Univ. of Science and Technology) and Dan Melamed (University of Pennsylvania) on "The Future of the Lexicon."

A series of three lively panels will address topics close to the heart of all who are interested in machine translation: "Breaking the Quality Ceiling"; "The Forgotten Majority: Ignored Languages"; and "The AMTA Seal of Approval." In addition, refereed papers on a variety of topics will be presented by researchers, practitioners, and users of machine translation and related language technologies. As in previous AMTA conferences, the program will also include live system presentations given in a theater-style setting, as well as tabletop demonstrations of noncommercial systems. [See box for contact information.]

Tutorials

As part of the conference program, six half-day tutorials are being offered on Wednesday, 28 October—three in the morning and three in the afternoon:

- "Survey of Methodological Approaches to MT"—*Harold Somers* (UMIST)
- "Multilingual Text Summarization"—*Eduard Hovy* (ISI/USC)
- "Speech-to-Speech Translation"—*TBA*
- "MT Evaluation: Old, New, and Recycled"—*John White* (PRC)
- "Survey of Language Learning Technologies"—*Patricia O'Neill-Brown* (U.S. Department of Commerce)

NOTICE

The final date for submission of paper proposals was 15 June 1998. Further information may be obtained from Program Chair Laurie Gerber (tel: +1 619 459-6700, ext. 119; fax: +1 619 459-8487; e-mail: lgerber@systransoft.com) or David Farwell (tel: +1 505 646-5108; fax: +1 505 646-6218, e-mail: david@crl.nmsu.edu). Format instructions are printed on the conference Website: www.isi.edu/natural-language/AMTA98.html

- "Multilingual Text Retrieval"—*Gregory Grefenstette* (Xerox/Grenoble)

Preconference Workshops

Two preconference workshops will be held on Tuesday, 27 October, from 9:00 a.m. to 5:00 p.m., as follows:

- "Second SIG-IL Workshop on Interlinguas and Interlingual Approaches to MT"
- Organizer and contact: *Stephen Helmreich* (CRL/NMSU), shelmrei@crl.nmsu.edu
- "Workshop on Integrating MT into the Corporate Setting" Organizers: *Kurt Godden* (GM) and *Christine Kamprath* (Caterpillar) Contact: *Kurt Godden*, lnuschvl.zzk04z@gm.com

In addition, a third workshop will be held on Wednesday, October 28, from 9:00 a.m. to 5:00 p.m., running in parallel with the tutorial sessions:

- "Embedded MT: Design, Construction, and Evaluation of Systems with an MT Component" Organizers: *Clare Foss* (ARL), *Tapas Kanungo* (University of Maryland), and *Ann Brodeen* (ARL) Contact: *Clare Foss*, voss@arl.mil

Participation in these workshops is separate from regular registration for AMTA-98. Those interested in attending should communicate with the respective contacts indicated above.

Exhibits

Vendor booths will showcase commercial products on an ongoing basis throughout the conference. Those who are interested in renting an exhibit booth can obtain the registration and application form at www.isi.edu/natural-language/amta98/exhibitregistration.html, or they may contact the AMTA-98 Exhibits Coordinator: *Kimberly Belvin*, 659 Dell Street, Solana Beach, CA 92074; tel: +1 619 481-8446; fax: +1 619 350-8613; e-mail: kbelvin@ucsd.edu.

Related Events

Local Arrangements Chair Martha Palmer (University of Pennsylvania) has organized the related social events: the complementary welcoming reception in the exhibit area on Wednesday, 28 October, and the traditional banquet at the University of Pennsylvania's Palladium Restaurant on Friday, 30 October. In addition, on Saturday there will be a tour of the historic downtown Philadelphia area, including Independence Mall, the Liberty Bell, and other famous landmarks.

Conference Site and Accommodations

The Sheraton Bucks County Hotel in Langhorne lies in the heart of Berenstain Bears countryside, an area renowned for its beauty, history, and culture. At the same time it offers easy access to Philadelphia, New York, and New Jersey; located just off I-95 and Route 1 northeast of Philadelphia, it is minutes away from planes, trains, and turnpikes. Guests are surrounded by unique shopping, sightseeing, and entertainment opportunities, including Sesame Place, Peddlers Village, and the Franklin Mills Mall

Historic New Hope is nearby, while Atlantic City and the Pennsylvania Dutch country are easy day trips.

This recently built colonial-style hotel has spacious soundproof guest rooms with individually controlled air conditioning, direct two-line touch-tone phones, cable TV, and coffee-makers. Other features include valet parking, a hair salon, valet service, a gift shop, a fully equipped spa with indoor pool with jacuzzi, and state-of-the-art exercise equipment with steam room and sauna. Guests and members may receive individualized expert assistance with their fitness programs.

Further information on site and accommodations: Martha Palmer, tel: +1 (215) 898-2661; fax: +1 (215) 898-0587; e-mail: mpalmer@line.cis.upenn.edu.

Travel

Air travel is available to Philadelphia from all major North American airports and many international ones. The shuttle from the airport to the hotel, First Class Airport Transportation Co., costs \$23 one way for one person and less for additional passengers.

The area may also be reached by regional rail. For those coming in by train, the R5 runs from 30th Street Station in Philadelphia to Langhorne and costs \$4.50 (peak)/\$3.75 (off-peak) one way (*further information:* +215 580-7800). It is also possible to reach the area by taking an Amtrak train from Washington, D.C., or New York City to Trenton, New Jersey.

Registration Form

A printable copy of the registration form will soon be posted on the Internet at www.isi.edu/natural-language/AMTA98.html. A registration packet may be obtained from Deborah Becker, AMTA/IAMT Focal Point, 1201 Pennsylvania Avenue, N.W., Suite 300, Washington, D.C. 20004 USA; tel/fax: +1 703 716-0912; e-mail: amta@clark.net.

Further Information

As it becomes available, additional information will be posted on the conference Website, www.isi.edu/natural-language/AMTA98.html. To summarize the indications above, program inquiries should be addressed to one of the Program Chairs.



Association for Machine Translation in the Americas Membership Application/Renewal Form

Please type or print the following information:

Name: _____

Address: _____

Home telephone: _____

Work telephone: _____

Fax: _____

E-mail: _____

Affiliation (if not in address) _____

Professional Associations: _____

Please mail this form with your check or money order payable to AMTA to:

Association for Machine Translation in the Americas
1201 Pennsylvania Avenue, N.W., Suite 300
Washington, D.C. 20004

I hereby apply for membership in AMTA as:

- Individual Member US \$60
- Institutional Member US \$200
Representative
- Corporate Member US \$400
Representative

Area of Specialization (check one or more)

- MT User MT Researcher
- MT Developer Translator
- Other Manager

Method of Payment:

- Check enclosed
- Please charge my credit card: VISA MasterCard
Card Number _____ Exp. Date _____
Cardholder Signature _____

REV 06/98

Laurie Gerber or David Farwell; questions about the exhibits, to Kimberly Belvin; about the site or accommodations, to Martha Palmer; and about registration, to Deborah Becker. Eduard Hovy, General Chair of the conference, may also be consulted: tel: +1 310 822-1511, ext. 731; fax: +1 310 823-6714; e-mail: hovy@isi.edu.

MT Summit VII

Singapore

13-17 September 1999

The Asia-Pacific Association for Machine Translation has announced the dates and venue of the next MT Summit. The conference site is Kent Ridge Digital Laboratory on the campus of the National University of Singapore.

The schedule is as follows:

- Monday, 13 September: Tutorials

- Tuesday through Thursday, 14-16 September: Conference (two parallel sessions)

- Friday, 17 September: Workshop

AAMT and the local organizing committee have expressed the hope that, with the cooperation of members from all the regions, this conference will be practical and valuable.

Forthcoming Events

1998

May 31 - June 4 — DIALOGUE'98:

International Conference on Computational Linguistics and its Applications, Kazan, Russia. *Information:* Russian Institute for Artificial Intelligence, P.O.Box 111, Moscow, 103001 Russia (e-mail: dialog98@bull.nmd.msu.ru)

June 2 — EMNLP-3: Third Conference on Empirical Methods in Natural Language Processing, Granada, Spain. Program chairs: Nancy Ide, Department of Computer Science, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604-0520 (tel: +1 914 437 5988; fax: +1 914 437 7498; e-mail: ide@cs.vassar.edu), Aro Voutilainen, Research Unit for Multilingual Language Technology, Department of General Linguistics, P.O. Box 4 (Keskuskatu 8, 7th floor), FIN-00014 University of Helsinki, Finland (tel: +358 9 191 23 507; fax: +358 9 191 23 598; e-mail:

atro.voutilainen@ling.helsinki.fi).

Information: www.cs.vassar.edu/~ide/emnlp3.html; www.cs.jhu.edu/~yarowsky/sigdat.html

June 2-5 — KR'98: Sixth International Conference on Principles of Knowledge Representation and Reasoning, Trento, Italy. *Information:* www.kr.org/kr/kr98/; e-mail: kr98-info@kr.org

June 29 - July 1 — FSMNLP'98: International Workshop on Finite State Methods in Natural Language Process-

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- ing, Bilkent University, Ankara, Turkey
Information: www.nlp.cs.bilkent.edu.tr/fsmnlp98/
- July 5-10 — Virtual communities: joint international conference ALLC/ACH'98, Lajos Kossuth University, Debrecen, Hungary. *Information:* ALLC/ACH'98, Center for Applied Linguistics, Lajos Kossuth University, Debrecen POB 24, Hungary H-4010 (tel: +36 52 316 666 ext. 2116; fax: +36 52 418 733; e-mail: allcach98@llab2.arts.klte.hu)
- July 11 — Workshop on Machine Translation, ALI'98, Australian Linguistics Institute, University of Queensland, Brisbane. Convener: Francis Bond (e-mail: bond@cslab.keel.ntt.co.jp)
- July 13-24 — ELSNET's 6th European Summer School on Language and Speech Communication, Barcelona, Spain. General information: www.elsnet.org. Local information: ELSNET Summer School Secretariat, Dep. Teoria del Senyal i Comunicacions, Universitat Politècnica de Catalunya, Jordi Girona 1-3 MOD D5, 08034 Barcelona, Spain (fax: +34 3 401 64 47; www.gps-tsc.upc.es/veu/ess98/; e-mail: summer98@gps.tsc.upc.es)
- August 1-4 — DAARRC2, Discourse, Anaphora, and Reference Resolution Colloquium, Lancaster University. *Information:* DAARRC2, Department of Linguistics, Lancaster University, Bailrigg, Lancaster LA1 4YT, UK (e-mail: etamme@msmail.lancaster.ac.uk)
- August 4-8 — EURALEX'98: Eighth International Congress of the European Association for Lexicography, University of Liège, Belgium. *Information:* www.engdep1.philo.ulg.ac.be/curalex.html
- August 5-7 — 9th International Workshop on Natural Language Generation, Niagara-on-the-Lake, Ontario, Canada. *Information:* logos.uwaterloo.ca/~nlg98
- August 10-14 — COLING-98: 17th International Conference on Computational Linguistics and 36th Annual Meeting of the Association for Computational Linguistics (ACL-98), University of Montreal, Quebec, Canada. *Information:* COLING-ACL'98, Pierre Isabelle, RALI, DIRO, University of Montreal, CP 6128, Succ. Centre-ville, Montreal (Quebec), Canada H3C 3J7 (www.rali.iro.umontreal.ca/COLING-ACL98/; e-mail: coling-acl98@iro.umontreal.ca) [See further details under "Conference Announcements" in this issue]
- August 14-16 — FHCG-98, Joint Conference on Formal Grammar, Head-Driven Phrase Structure Grammar, and Categorical Grammar, Saarbruecken, Germany. *Information:* www.diki.de/events/hpsg98/
- August 15 — COMPUTERM Workshop First Workshop on Computational Terminology, University of Montreal, Quebec, Canada. *Information:* db@lli.univ-paris13.fr
- August 15-16 — WVLC-6: Sixth Workshop on Very Large Corpora, University of Montreal, Canada. Organizer: Eugene Charniak (e-mail: ec@cs.brown.edu)
- August 15-16 — NLP+IA'98: Second International Conference on Natural Language Processing and Industrial Applications, Moncton, NB, Canada. Organizer: Chadia Moghrabi (e-mail: moghrac@umoncton.ca)
- August 17-28 — ESSLI-98: Tenth European Summer School in Logic, Language and Information, Saarbruecken, Germany. Workshops include: Automatic Acquisition of Syntax and Parsing, Machine Translation (24-28 August). *Information:* essli98@des.warwick.ac.uk; local information: uszkoreit@coli.uni-sb.de; general information: www.des.warwick.ac.uk/~essli98/
- August 23-28 — ECAI-98: 13th European Conference on Artificial Intelligence, Brighton. *Information:* ECAI-98 Secretariat, Centre for Advanced Software Applications, University of Sussex, Brighton BN1 9QH, UK (tel: +44-1273 678448; fax: +44-1273 671320; www.cogs.susx.ac.uk/ecai98; e-mail: ecai98@cogs.susx.ac.uk)
- October 5-9 — IBERAMIA-98: Sixth Ibero-American Conference on Artificial Intelligence, Lisbon, Portugal. *Information:* www-ssdi.di.fct.unl.pt/~iberamia/
- October 27-30 — SPECOM'97: International Workshop Speech and Computer, Cluj-Napoca, Romania. *Information:* Attila Ferencz, S.C. Software ITC S.A. Cluj-Napoca, 109 Gh. Bilascsu Street, 3400 Cluj-Napoca, Romania (tel: +40-64-197681; fax: +40-64-196787; e-mail: ferencz@outcluj.ro)
- October 28-31 — AMTA-98: Machine Translation and the Information Soup: MT in a Growing Field of Language Technologies. Third conference of the Association for Machine Translation in the Americas, Langhorne, Pennsylvania. Program chairs: Laurie Gerber, SYSTAN Software, Inc., 7855 Fay Avenue, Suite 300, La Jolla, California 92037 (tel: +1 619 459-6700 ext. 119; fax: +1 619 459 8487; e-mail: lgerber@systransoft.com). David Farwell, Computing Research Laboratory, New Mexico State University, Box 3001/3CRL, Las Cruces, New Mexico 88003 (tel: +1 505 646-5108; fax: +1 505 646-6218; e-mail: david@crlnmsu.edu). *Information:* www.isi.edu/natural-language/AMTA98.html; e-mail: amta@clark.net [See further details under "Conference Announcements" in this issue]
- November 30 - December 4 — ICSLP'98: Fifth International Conference on Spoken Language Processing, Sydney. *Information:* TourHosts, GPO Box 128, Sydney NSW 2001, Australia (fax: +61-2-9262-3135; www.cslab.anu.edu.au/icslp98; e-mail: tourhosts@tourhosts.com.au)
- November 30 - December 1 — Models of Translation, Foundations of Methodology, Evaluation, and Computational Modeling. Congress on the occasion of the 50th anniversary of the Institute of Applied Linguistics, Translation, and Interpreting of the University of Saarland, Saarbruecken, Germany. Organizer: Erich Steiner, Universitaat des Saarlandes, Fachrichtung 8.6, Angewandte Sprachwissenschaft, Postfach 151150, D-66041 Saarbruecken, Germany (e-mail: ijc98@rz.uni-sb.de)
- December 2-4 — NLPRS'97: Natural language Processing Pacific Rim Symposium, Cape Panwa Hotel, Phuket, Thailand. *Information:* www.links.nectec.or.th/NLPRS/nlprs.html

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- September 13-17 — MT Summit VII, Singapore. *Information:* Y Nakajima, AAMT Secretary, e-mail: aamt0001@infotokyo.or.jp