

## In the News: Talk about Talk

What's been happening in speech and language technologies in Australasia recently? Here's a roundup of some of the developments that have been shaping the industry in this part of the world over the last year.

The year started with the deployment of Telstra's voice recognition Directory Assistance system, and not to universal acclaim. The speech recognition technology seemed to be doing what it was supposed to be doing, but callers often didn't realise that it was only supposed to automate 2000 of Australia's millions of listings.

Ve-Commerce's VeBet, a voice-recognition system for placing bets, went from strength to strength: following a very successful deployment for Queensland TAB, a consortium of five other TABs placed an order. We'd put our money on this one.

Enterprise Speech Recognition rolled out a taxi booking service in Sydney for the Taxis Combined Network. When making a booking, you can say 'yes' in 80 different ways but 'no' in only 30 ... interesting marketing ploy, that one.

## Language Technologies at CSIRO

CSIRO's Intelligent Interactive Technology group has expertise spanning a wide range of communication mediums, from traditional graphical interfaces to text, speech, multimedia and new interactive devices.

Top specialisations are in the areas of language technology, human computer interaction, and intelligent agents, combined to address issues of customised information delivery. The Tiddler system, for example, automatically combines information from databases with text from existing web pages to provide documents tailored both to the user and to the delivery medium; CARRS (for Computer Automated Road Report System) provides highly individualised and personalised reports on road traffic conditions in multiple languages for a range of devices; and ISOLDE automatically generates online help from software specifications, ensuring a better alignment of documentation with products, reduced production times, and easier updating.

Find out more about what the IIT group do at <http://www.cmis.csiro.au/iit>.

### What's your view ?

*If you have comments on LT Update, or ideas on things you'd like to see us cover, just mail [ltupdate@ics.mq.edu.au](mailto:ltupdate@ics.mq.edu.au).*

## Upcoming Events

### National

- Voice2002: 12-14 March, Rex Hotel, Sydney. <http://www.ibcoz.com.au/voice2002>.
- SST 2002, 9th Australian International Conference on Speech Science and Technology: 2-5 December, University of Melbourne. <http://www.conferences.unimelb.edu.au/SST/>

### International

- VoiceXML Planet 2002 Conference & Expo: 20-22 March, San Jose, CA, USA. <http://events.internet.com/vxml/spring02>.
- HLT2002: Human Language Technology Conference, 24-27 March, San Diego, CA, USA. <http://hlt2002.org>.
- V-World: 29 April-2 May, Walt Disney World, Florida, USA. <http://www.nuance.com/v-world>.
- ICASSP2002: International Conference on Acoustics, Speech and Signal Processing. 13-17 May, Orlando, Florida, USA. <http://www.icassp2002.com>.
- ACL2002: 40th Anniversary Meeting of the Association for Computational Linguistics, 7-12 July, Philadelphia, PA, USA. <http://www.acl2002.org/>
- ICSLP2002: 7th International Conference on Spoken Language Processing, 16-20 September, Denver, Colorado, USA. <http://www.icslp2002.org>.
- Coling2002: 19th International Conference on Computational Linguistics, 24 August - 1 September, Taipei, Taiwan. <http://www.coling2002.sinica.edu.tw>.
- LangTech 2002: 26-27 September, Berlin, Germany. <http://www.lang-tech.org>.

## A Big Hello to Appen

Appen, an Australian company specialising in speech technology solutions for businesses and government, has joined LT Update as a supporting subscriber.

Appen employs a strong team of speech technology professionals with skills in linguistics, computer science and communications; the company offers a full spectrum of speech technology services, enabling businesses to interact with customers in a user-friendly and cost-effective way. Customer applications range from call-centre transactional services to embedded software and text-to-speech synthesis.

Appen's knowledge of speech science and technology has evolved through rigorous research, and is complemented by experience that has allowed it to develop methods and approaches to reduce time to market. Appen's management and operations are situated in Chatswood, in northern Sydney; see <http://www.appen.com.au>.

## Who gets LT Update?

LT Update is a product of Macquarie University's teaching program in the human language technologies. This program, funded under the Federal Government's prestigious Science Lectureships Initiative, is the only teaching program in Australia that focuses on delivering a rich education in the twin areas of spoken language processing and natural language processing, widely viewed as critical technologies in the next decade. LT Update is provided primarily as a service for alumni from this program, so it provides both a community for those with similar interests, and at the same time a very focussed channel to a group of people with particular skills. Thanks to CSIRO's generous support, subscriptions are currently free to all: visit <http://www.clt.mq.edu.au/LTUpdate> to register.

You can find out more about Macquarie's unique program in the human language technologies at <http://www.clt.mq.edu.au/Teaching>.





# LT update

what's happening in speech  
and language technology in Australasia

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You can access this newsletter electronically via the LT Update site at <http://www.clt.mq.edu.au/LTUpdate>, where you'll also find web links to all the items mentioned in this issue as well as pointers to further resources.

## Welcome to the inaugural issue of LT Update!

LT Update is a new free publication from the Centre for Language Technology, produced in conjunction with Language Technology P/L and with the generous support of CSIRO.

The Update is a periodic hard and soft copy publication that aims to keep you abreast of developments in the speech and language technologies in Australia and New Zealand.

True to its name, each issue of LT Update will provide a retrospective on what's been happening recently, and will also provide a variety of regular columns that we hope you will find informative and useful.

## ... and make sure you register for the ltupdate email list:

It's not the Update's goal to bring you breaking news: for that, we have a moderated email list that you can gain access to by becoming a registered subscriber to LT Update.

Because the email list is moderated, we can guarantee a high signal-to-noise ratio: no spam, no waste in your electronic inbox, just pertinent news about relevant products and events, and - a very important service for many of our mailing list subscribers - job ads in all areas of speech and language technology.

## Tech Focus: VoiceXML 2.0

*In each issue of LT Update, we bring you a brief primer on an important area of speech and language technologies. In this issue, Robert Dale highlights the newly released VoiceXML 2.0 specification.*

VoiceXML, based on XML, is a language that allows you to define voice user interfaces by defining the flow of the dialog, the prompts to be presented to the user, and the responses that are permitted at each stage. Many leaders in the voice technology industry see VoiceXML as the future standard for developing telephone speech applications. By abstracting away from the specifics of particular speech recognisers and text-to-speech (TTS) systems, and even more importantly, by abstracting away from the painful details of telephony integration, it provides a relatively easy way to build speech-enabled applications.

In the US, there are already voice service providers (VSPs) who provide the VoiceXML gateways and voice browsers that package up these resources, and similar services are rumoured to be coming soon in Australia. All you have to do is write your application in VoiceXML, save it as a document on the web, and then sign up with the VSP, who gives you a telephone number that your customers can call. The VSP provides the speech and telephony resources, and accesses your application pages across the web, just as an ISP does for conventional HTML web pages.

There isn't space here to show examples of VoiceXML, but you can find plenty of samples at the links on the resources web page listed below. Some key points to be aware of:

- VoiceXML is a fairly simple language to learn and use.
- Because it interoperates with the web, you

can integrate the same server-side resources that you would use for your web site.

- Although it's easy to write a VoiceXML app, that also means it's easy to write a bad VoiceXML app: there's no substitute for proper training in dialog design, prompt design and grammar writing.

This last point is especially important: we're on the verge of seeing a rerun of what happened when desktop publishing software first hit the market, with everybody considering themselves a graphic designer and publisher. Readers may remember the horrendous results: ten typefaces in five sizes in one document, incomprehensible text, confusing layout ...

The first version of the VoiceXML specification, supported by a host of industry heavyweights, appeared in March 2000, and the new updated 2.0 specification hit the streets in October 2001. Key elements of the upgrade include support for XML-formatted grammars, Speech Synthesis Markup Language (SSML), *n*-best recognition, and a number of fine-tunings that enhance the functionality of the language. Nuance's new v8.0 recognition tools support VoiceXML 2.0, as does SpeechWorks' open source VoiceXML Interpreter (OpenVXI).

If you've been thinking about exploring the potential of VoiceXML, now is a good time, with an excellent range of developer tools available freely over the net. See the resources page at <http://www.clt.mq.edu.au/LTUpdate/voicexml> for a collection of useful links.

In a future issue, we'll look at SALT, a potentially competing technology from a consortium of industry giants including Microsoft. Watch this space!

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organisations that are supporting subscribers to LT Update. If your organization is interested in becoming a supporting subscriber, email [ltupdate@ics.mq.edu.au](mailto:ltupdate@ics.mq.edu.au).