The Blizzard Challenge 2009

Evaluating corpus-based speech synthesis on common databases

Alan W Black, Simon King and Keiichi Tokuda January, 2009

In order to better understand and compare research techniques in building corpus-based speech synthesizers on the same data, the Blizzard Challenges 2005, 2006, 2007 and 2008 were held. We are now pleased to call for participation in the fifth challenge: Blizzard Challenge 2009.

The 2009 Challenge will be similar to the 2008 Challenge, but with a new "hub and spoke" design, allowing participants to opt in or out of some parts of the Challenge. The "hub" task, required from all participants, is to take the released speech data, build synthetic voices, and synthesize a prescribed set of test sentences. The sentences from each synthesizer are then evaluated through extensive listening tests. Participants may enter systems for one or both languages. The optional "spoke" tasks are: very small datasets (probably requiring voice transformation or speaker-adaptive techniques), synthesis of "contextually-appropriate" speech, and synthesis of speech designed to be heard in background noise and/or via a telephone channel. We encourage participants to enter systems for both languages and as many "spoke" tasks as possible. A detailed task specification will be provided along with the released data.

- **UK English database:** CSTR (www.cstr.ed.ac.uk) will release a 15-hour male UK English speech database known as 'Roger', along with an optional matched lexicon and automatically-aligned labels; this is the same data used in the 2008 Blizzard Challenge. For participants using the lexicon and automatically-aligned labels for the database, labels will be provided for the test sentences.
- Mandarin Chinese database: iFlyTek (www.iflytek.com) will release a 6000-utterance (about 170,000 Chinese characters) Mandarin Chinese female database known as 'WJ'. 1000 utterances of this database are labelled manually (including PinYin sequence checking, segmentation and prosodic boundary labelling) and the remaining sentences are labelled automatically. Labels (including PinYin sequence and prosodic information) will be provided for the test sentences.
- **Blizzard 2009 workshop:** The results will be presented at a workshop, which will be a satellite of INTERSPEECH 2009, UK (www.interspeech2009.org). The workshop will be held in the UK (probably in Edinburgh) immediately before or after INTERSPEECH. A condition of participation in the Blizzard Challenge is the submission of a paper to this workshop. Accepted papers will be presented at the workshop and published on the Blizzard website.
- **Blizzard website:** The website at http://www.synsig.org/index.php/Blizzard_Challenge contains further information, including the full rules of participation.
- **Registration:** Interested parties should register their intention to participate as soon as possible, by mailing blizzard@festvox.org. They should identify a contact person in their team, and provide email and postal addresses. A registration fee of 750USD per participant will be required to offset the costs of running the challenge and paying listeners; we believe this is excellent value for money! Instructions for payment of this fee will be sent to registered participants.
- **Licenses:** the licenses for the released data can be found via the Blizzard website. Data will be released to each participant once the appropriate license(s) have been agreed to, but no sooner than Monday 2nd February 2009. The procedures for this are given on the Blizzard website.

Mailing list: please join the blizzard-discuss mailing list. Instructions are on the Blizzard website.

Provisional timeline (please see the website for the latest official timeline)

Feb	2	2009	Planned database release
Apr	6	2009	Test sentences released
Apr	12	2009	Deadline for submitting synthesized speech
Apr	20	2009	Evaluation system goes live
June	15	2009	End of evaluation
June	26	2009	Results distributed to teams
July	24	2009	Satellite workshop papers due
Aug	14	2009	Notification of acceptance
Sep		2009	Presentation of results at the satellite workshop, to be held in the UK
Sep. 6-10		2009	INTERSPEECH 2009 in Brighton, UK

Further Information: For further information please contact blizzard@festvox.org.

A description of the challenge was published at Interspeech 2005: http://www.festvox.org/blizzard/bc2005/IS051946.PDF