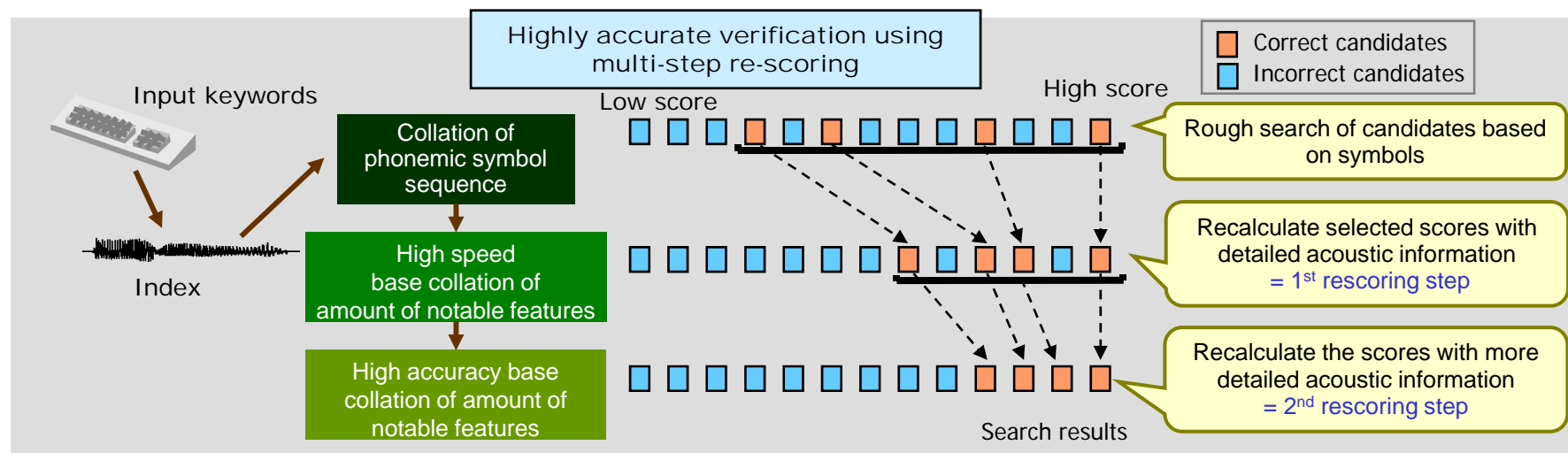


2008/10/06 Release

Keyword search in 3-seconds from 2000-hours of recorded voice data Development of large-scale high-speed & high precision voice search technology



Hitachi, Ltd. has developed a highly accurate and high-speed voice search technology for detecting arbitrary keywords within a large volume of recorded voice data. This technology narrows in on the candidate recordings by a multi-step search: firstly, the recorded data is processed using phonemic symbols (the minimal vocal component) for a high-speed search, this is followed by a second high-speed search based on the amount of notable features which is then followed by a high compatibility search based on the amount of notable features. As a result, it is now possible to input a keyword, and find in 3 seconds, a voice recording containing the selected keyword from within 2000 hours of recording. This technology is expected to find a wide range of applications such as in voice search in visual contents containing voice data or high-speed search of customers' voice in call center data to support product or service improvement.

This technology will be presented at the IEEE Signal Processing Society "2008 International Workshop on Multimedia Signal Processing" to be held from 8th- 10th October 2008 in Cairns, Australia.

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The "Corpus of Spontaneous Japanese" (CSJ) developed by the National Institute for Japanese Language, National Institute of Information and Communications Technology (NICT) and the Tokyo Institute of Technology, was used in voice feature amount learning and system performance evaluation.