(54) **Method and apparatus using decision trees to generate and score multiple pronunciations for a spelled word**

(57)   The mixed decision tree includes a network of yes-no questions about adjacent letters in a spelled word sequence and also about adjacent phonemes in the phoneme sequence corresponding to the spelled word sequence. Leaf nodes of the mixed decision tree provide information about which phonetic transcriptions are most probable. Using the mixed trees, scores are developed for each of a plurality of possible pronunciations, and these scores can be used to select the best pronunciation as well as to rank pronunciations in order of probability. The pronunciations generated by the system can be used in speech synthesis and speech recognition applications as well as lexicography applications.
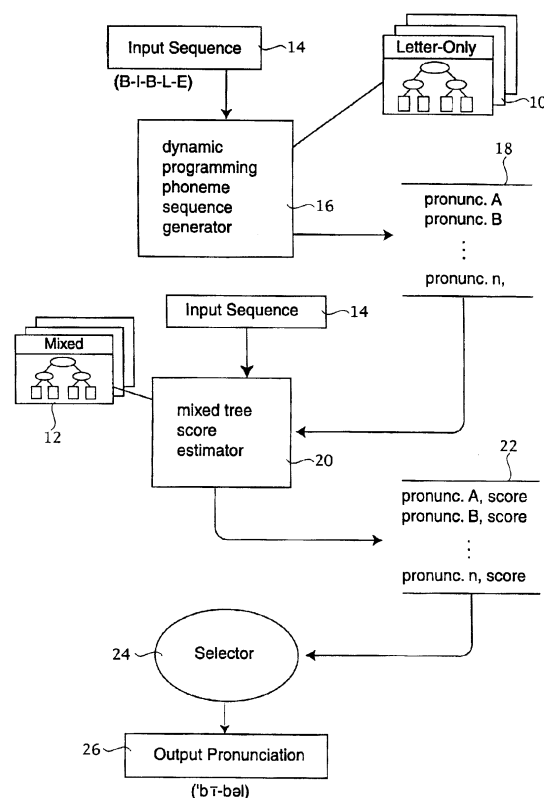
FIG. 1

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	ANDERSEN O ET AL: "Comparison of two tree-structured approaches for grapheme-to-phoneme conversion" PROCEEDINGS ICSLP 96. FOURTH INTERNATIONAL CONFERENCE ON SPOKEN LANGUAGE PROCESSING (CAT. NO.96TH8206), PROCEEDING OF FOURTH INTERNATIONAL CONFERENCE ON SPOKEN LANGUAGE PROCESSING. ICSLP '96, PHILADELPHIA, PA, USA, 3-6 OCT. 1996, pages 1700-1703 vol.3, XP002123689 1996, New York, NY, USA, IEEE, USA ISBN: 0-7803-3555-4 * paragraph '0001! * * paragraph '0002! * * paragraph '0003! * * paragraph '0004! * * page 1703, right-hand column, line 8 - line 17 *	1-6,9, 10,14-22	G10L5/04
A	EP 0 562 138 A (IBM ;IBM SEMEA S P A (IT)) 29 September 1993 (1993-09-29) * page 3, line 56 - page 6, line 29; figure 1 *	1,14,22	**TECHNICAL FIELDS SEARCHED** (Int.Cl.6) G10L

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	24 November 1999	Wanzeele, R

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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24-11-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0562138 A	29-09-1993	NONE	

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82