Abstract:

A system and method for learning alternate pronunciations for speech recognition is disclosed. Alternative name pronunciations may be covered, through pronunciation learning, that have not been previously covered in a general pronunciation dictionary. An embodiment, the detection of phone-level and syllable-level mispronunciations in words and sentences may be based on acoustic models trained by Hidden Markov Models. Mispronunciations may be detected by comparing the likelihood of the potential state of the targeting pronunciation unit with a pre-determined threshold through a series of tests. It is also within the scope of an embodiment to detect accents.
Date of publication of the international search report:
29 October 2015
INTERNATIONAL SEARCH REPORT

INTERNATIONAL SEARCH REPORT

INTERNATIONAL APPLICATION No.
PCT/US2014/060798

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G10L 1/5 (2014.01)
CPC - G10L1/187 (2014.1.1)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G10L15/18; G10L15/00; G10L15/06; G10L15/08 (2014.01)
USPC - 764/231; 243, 251; 254, 257

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - G10L15/187; G10L15/22; G10L15/063 (2014.1.1) (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase, Google Patents, Google Scholar.
Search terms used: language, pronunciation, mispronunciation, acoustic model, speech corpus, phoneme, confusion matrix, grammar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 2004/0153319 A1 (YACOUB) 05 August 2004 (05.08.2004) entire document</td>
<td>4</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
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"P" document published prior to the international filing date but later than the priority date claimed

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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Date of the actual completion of the international search
30 December 2014

Date of mailing of the international search report
05 FEB 2015

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