

200107978-9

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
28 December 2000 (28.12.2000)

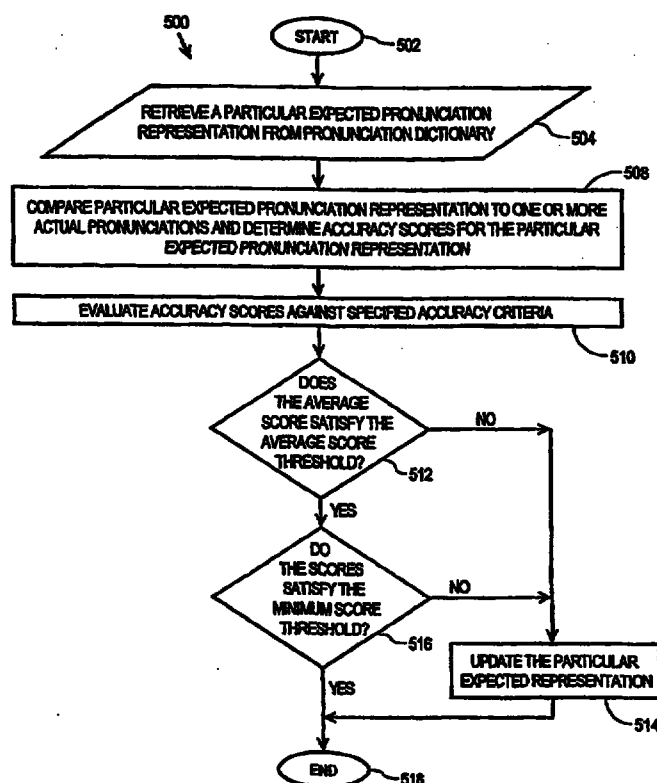
PCT

(10) International Publication Number
WO 00/79517 A1

- (51) International Patent Classification⁷: G10L 15/06 (74) Agents: MIRABITO, A., Jason et al.; Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111 (US).
- (21) International Application Number: PCT/US00/17209
- (22) International Filing Date: 23 June 2000 (23.06.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/344,164 24 June 1999 (24.06.1999) US
- (71) Applicant: SPEECHWORKS INTERNATIONAL, INC. [US/US]; 695 Atlantic Avenue, Third Floor, Boston, MA 02201 (US).
- (72) Inventor: BARNARD, Etienne; Apartment 2207, 5700 Bunker Hill Street, Pittsburgh, PA 15206 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: AUTOMATICALLY DETERMINING THE ACCURACY OF A PRONUNCIATION DICTIONARY IN A SPEECH RECOGNITION SYSTEM



(57) Abstract: An approach for automatically determining the accuracy of a pronunciation dictionary in a speech recognition system involves comparing an expected pronunciation representation for a particular word from a pronunciation dictionary to one or more actual pronunciations of the particular word. An accuracy score for each of the phonemes that constitute the pronunciation of the particular word is determined from the comparison of the expected and actual pronunciations for the particular word. The accuracy score is evaluated against specified accuracy criteria to determine whether the expected pronunciation for the particular word satisfies the specified accuracy criteria. If the expected pronunciation does not satisfy the specified accuracy criteria for the particular word, then the expected pronunciation for the particular word in the pronunciation dictionary is identified as requiring updating. Manual or automated update mechanisms may then be employed to update the identified expected pronunciation representations to reflect the actual pronunciations.

WO 00/79517 A1



Published:

- *With international search report.*
- *Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.