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(71) Applicant (for all designated States except US): **AMERICA ONLINE, INC.** [US/US]; 22000 AOL Way, Dulles, VA 20166 (US).

(72) Inventors: **WU, Jianchao**; 182 - 241st Place SE, Sammamish, WA 98074 (US). **LAI, Jenny, Huang-Yu**; 1000 Dexter Avenue, Suite 300, Seattle, WA 98109 (US). **HE, Lian**; 14238 - 112th PL NE, Kirkland, WA 98034 (US). **VAN MEURS, Pim**; 6212 NE 193rd Street, Kenmore, WA 98028 (US). **WONG, Keng, Chong**; 1726 NE 92nd Street, Seattle, WA 98115 (US). **ZHANG, Lu**; 125 - 202nd Street SE, Bothell, WA 98012 (US).

(74) Agents: **GLENN, Michael, A. Glenn Patent Group** et al.; 3475 Edison Way, Ste. L., Menlo Park, CA 94025 (US).

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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.

(54) Title: SYSTEM AND METHOD FOR DISAMBIGUATING PHONETIC INPUT

(57) Abstract: A system (52) and method for inputting Chinese characters using phonetic-based or stroke-based input method in a reduced keyboard (54) is disclosed. By introducing common indices to ideographic characters, the system (52) allows the ideographic characters to be shared among different type of input methods such as phonetic-based input (73) method and stroke-based input (73) method. The system matches input sequences to input method specific indices such as phonetic or stroke indices (1440). These input method specific indices are then converted into indices to ideographic characters, which is then used to retrieve ideographic characters (1460).



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/23760

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G06F 17/28**(2006.01),**15/00**(2006.01);**G10L 15/18**(2006.01)

USPC: 704/3,257;715/535

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)
U.S. : 704/3,257;715/535

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
x --- y	US 6,073,146 (CHEN) Jun. 6, 2000 (06.06.2000): col. 1, lines, 35-60; col. 4, lines 4-56; Fig. 3 and col. 9, line 55 to col. 10, line 49; Fig. 7 and col. 11, line 62 to col. 12, line 67; col. 6, lines 20-32; col. 11, lines 21-22; col. 18, lines 45-62; 56; col. 10, line 60 to col. 11, line 10 US 6,848,080 B1 (Lee et al.) Jan. 25, 2005 (25.01.2005): col. 13, lines 16-25 ; 13	107-121, 123, 127-129, 134-149, 151, 153, 157-159, 162-176, 178 and 182-184 ----- 122, 124-126, 130-131, 150, 154-156, 177, 179-181 and 185-186
y	US 5,197,810 (ZHANG et al.) Mar. 30, 1993 (30.03.1993) col. 13, line 59 to col. 13, line 8; col. 13, lines 62-63	132-133, 152, 160-161 and 187-188

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"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
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family

Date of the actual completion of the international search

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Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Qi Han

Telephone No. (571)-272-7602

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/23760

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

- Remark on Protest**
- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
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BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 107-188, drawn to method/system/computer readable medium for inputting ideographic characters (for Chinese language entry), classified in class 704, subclass 257.

Group II, claim(s) 1-106 drawn to a method/system/for disambiguating ambiguous input sequences and generating textual output in Chinese language, classified in class 704, subclass 3.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

For Group I and Group II, they are distinct inventions. Further, the common features of Group I and Group II are: entering an input sequence into a user input device comprising a plurality of input means, each of said input means being associated with a plurality of phonetic characters, an input sequence being generated each time when an input is selected by said user input device; data consisting of a plurality of input sequences and, associated with each input sequence; matching said phonetic entries with said ideographic database; and optionally displaying one or more matched ideographic characters, which are well known in the art, but, the rest of claimed limitations are different. Therefore, they are lack of unity of invention.

INTERNATIONAL SEARCH REPORT

International application No.
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