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Please find below and/or attached an Office communication concerning this application or proceeding.

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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/014,761 .

PATENT UNDER REEXAMINATION 8996579 .

ART UNIT 3992 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Reexamination

1. An Ex Parte Reexamination has been granted for claims 1-22 of US Patent 8,996,579 B2 to Dinn (hereafter "the '579 patent"). See Order, mailed 07/06/2021. Claims 1-22 are pending.

2. This action is responsive to remarks filed on 06/28/2022.

References Submitted by Requester

3. The following references have been cited as establishing a substantial new question of patentability. See Order, mailed 07/06/2021.

- Perlman et al., US 2002/0113825 A1, 08/22/2002 (filed 03/26/2001) (hereinafter "Perlman").
- Dostie et al., US 2004/0021691 A1, 02/05/2004 (filed 10/18/2001) (hereinafter "Dostie").
- Josenhans, US 2002/0078013 A1, 06/20/2002 (filed 05/30/2001) (hereinafter "Josenhans").

- Badarneh, Ziad, et al., WO 02/091160 A1, 11/14/2002 (hereinafter “Badarneh”).
- Schroeder et al., US 5,797,098, 08/18/1998 (hereinafter “Schroeder”)

Claim Rejections - 35 USC § 103

4. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

5. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-14, and 17-22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Badarneh and Josenhans.

Regarding claim 1, Badarneh discloses ***a computer-implemented method of selecting an item from a plurality of items, the method comprising: generating, by at least one computer processor, a first display.*** See abstract disclosing a system for input of data elements, e.g. letters, signs, numbers and/or symbols in connection with an electronic device which has a display, wherein the system is configured so that on input of at least one first data element in a data phrase it offers suggestions of the

data phrase. See the figure 9e depicting entering letters to select a word item from a list of word items.

Badarneh discloses ***the first display comprises: a part of an item identifier corresponding to a first set of items and a part of an item identifier corresponding to a second set of items.*** See figures 5c-12 and page 14, line 30-page 15, line 2.

Figures 9e and 9d show a GUI with character mapped buttons (I-IV) corresponding to up, down, left and right configuration can be controlled by a multifunction key such as a rotary switch. The up, down, left, and right configuration includes within character-mapped buttons I-IV, a part of an item identifier for at least a first set of items and a part of an item identifier for at least a second set of items in a database. Looking to figure 9d, the characters depict likely words and/or letters according to priority of use/probability calculus (see page 15, lines 15-20). Page 24, lines 10-20 indicate that the system has a database which contains the options and data that are available. A part of an item identifier for at least a second set of items would correspond to words/items that begin with a different letter/portion of the item identifier.

However, to the extent that the term “database” in the limitation reading “a part of an item identifier corresponding to a second set of items in a database” is interpreted to mean “a different particular database”, Badarneh does not state that the second set of items is from a different particular database. However, Josenhans discloses simultaneous access to two or more databases in order to perform a search. See paragraph [0007]. Josenhans discloses that two sets of identifiers may exist in separate databases which meets the limitation, ***a part of an item identifier corresponding to a second set of items in a database.*** See paragraph [0010] disclosing that a search

table is set up in which, **for each connected database**, at least the immediate predecessor and immediate successor to the entered search term and, if the search term itself is found in the database, the search term itself is stored. If the search term has not been found in the connected database, then among the immediate successors stored in the search table, the one selected is the one that is closest after the search term. This successor is then displayed. This allows users to search various databases.

It would have been obvious to a skilled artisan at the time of the invention to have incorporated Josenhans' database structure into Badarneh because there is an advantage to searching multiple databases as simply as searching one database in that it is more efficient, faster, convenient, and utilizes low memory capacity and low transfer rates. See paragraphs [0010]-[0012] of Josenhans.

Badarneh discloses ***enabling, by the at least one computer processor, selection of one of the two parts of the item identifiers by a user using a user interface.*** See page 16, lines 23-31 where a user can select a letter from the GUI by using the character mapped options of up, down, left, and right configuration such as a multifunction key.

Badarneh discloses ***generating, by the at least one computer processor, in response to the selection of the one of the two parts, a further display; wherein the further display comprises: an additional part of an item identifier corresponding to a subset of the selected set of items and another additional part of an item identifier corresponding to another subset of the selected items.*** See column 17, lines 28-31 and figures 9d-9e where the word "The" is written in text field 32. Field 33 shows the candidate words which are picked from the available list of word in

the order made according to how often these words are used statistically. In 9d, when the letter T is selected, field 33 updates the list of words to reflect database items containing the word beginning with that letter. Item identifiers “H” “O”, and “E” are then displayed where H represents entries in the database containing “TH” and “E” represents a set of entries in the database containing TE as the first two letters and “O” represents “TO” set of entries in a database.

Badarneh discloses ***enabling, by the at least one computer processor, selection of one of the two additional parts of the item identifiers by the user using the user interface.*** See column 17, lines 29-34 and figures 9g-9h. Field 33 shows the candidate word items picked from an available list of words in the order they are used statistically. Letters H, O, and E are chosen as the letters corresponding to letter number two in the words displayed. Figure 9h depicts l, c, and m displayed on the basis of prior selection of T and E.

Badarneh discloses ***combining, by the at least one computer processor, the selected one of the two parts of the item identifiers with the selected one of the two additional parts of the item identifiers to create a larger part of the item identifiers.*** See figures 9a-9m where selected portions are combined in the text box to form a larger portion of the words in the list 33.

Badarneh discloses ***displaying, by the at least one computer processor, the larger part of the item identifiers.*** See figures 9a-9m where the selected portions are combined in the text box at the top of the figures to form a larger portion of the words in the list 33.

Badarneh discloses ***wherein the additional parts of the item identifiers are shorter than complete item identifiers.*** The additional parts of the item identifiers are single letter representing the second letter of the words in the list of words 33 and are shorter than complete item identifiers. See figures 9a-m.

Badarneh discloses ***the first set of items identifiers and the second set of item identifiers are mutually exclusive of one another.*** See figures 9a-9m depicting that each part of an item identifier (i.e. letter) corresponds to the matching words in list 33 with the item identifier as the first letter, the first and second sets of item identifiers correspond to different letters and are mutually exclusive sets. For example, in figure 9G, the part "T" corresponds to words starting with "T" and part "S" corresponds to content/titles starting with "S". This is a mutually exclusive set. Similarly, the third set of item identifiers and the fourth set of item identifiers are mutually exclusive subsets of the first or second set of item identifiers because each of those sets requires a first and second letter to match first and as additional letters are entered, the subset of the prior set is produced. In other words, for each letter that is selected, the set of item identifiers produced are mutually exclusive of other sets of item identifiers because the item identifiers are reduced to a different subset.

Regarding claim 2, Badarneh discloses ***the method in accordance with claim 1, comprising a further step of iterating the selections until the item identifiers are completed.*** See figures 9a-9e and page 17, lines 29-31 where field 33 shows candidate words selected from the available list of words based on the inputted letters.

Regarding claim 3, Badarneh discloses ***the method in accordance with claim 1, wherein the step of generating the first display includes selecting the parts of the item identifiers for the first and second set of items to be displayed based on predetermined criteria.*** See figures 9a-9e and page 17, lines 29-31 where the selected parts of the item identifiers for the first and second items reflect the next letters in the available list of words in the order according to how often these words are used statistically.

Regarding claim 4, Badarneh discloses ***the method in accordance with claim 1, wherein one of the predetermined criteria is a frequency of selection of database items associated within the item identifier parts for the first and second set of items.*** See page 4, lines 22-24 where “the system is intended to be programmed so that the words which the user employs most come first... words will come or be shown successively in the priority order they have according to previous use. If the list of words does not have any priority order, the shortest words will be shown first”.

Regarding claim 6, Badarneh discloses ***the method in accordance with claim 1, wherein the item identifiers are text strings.*** See figure 9f-9h depicting the text strings as item identifiers such as “te” or “th”. See also page 18, lines 1-10 where the text string “te” is an item identifier.

Regarding claim 7, Badarneh discloses ***the method in accordance with claim 6, wherein the item identifiers are words.*** See also page 18, lines 1-10 disclosing that item identifiers can be entire words such as “telephone”. See also figures 9h-9i.

Regarding claim 8, Badarneh discloses *the method in accordance with claim 1, wherein the database is stored in a memory of the computing device*. See column 5, lines 1-12 stating the apparatus will have memory in which is stored a reference book/dictionary for the language that is to be used.

Regarding claim 9, Badarneh discloses *the method in accordance with claim 8, wherein the computing device is a mobile telephone*. See figure 5a and column 14, lines 30-33 disclosing the apparatus can be a mobile phone.

Regarding claim 10, Badarneh discloses *the method in accordance with claim 8, wherein the computing device is a Personal Digital Assistant (PDA)*. See figure 5a and page 14, lines 30-33 disclosing the apparatus can be a PDA.

Regarding claim 11, Badarneh discloses *the method in accordance with claim 8, wherein the steps of enabling selections allow selections of the one of the two parts or the one of the two additional parts of the item identifiers by way of a joystick*. See figure 5d and page 15, lines 13-15 disclosing enabling selections of one of the two parts by way of joystick.

Regarding claim 12, claim 12 is drawn to the system corresponding to the method of claim 1 above. Accordingly, claim 12 is rejected under the same rationale provided in claim 1 above. The additional elements of an output display, an input, and a computer processor are disclosed on page 4, lines 4-11 as display screens, input devices, controls, etc.

Regarding claims 13-14 and 17-22, claims 13-14 and 17-22 are drawn to the system corresponding to the method claims in claims 3-4 and 6-11 respectively above. Accordingly, claims 13-14 and 17-22 are rejected under the same rationale provided in claims 3-4 and 6-11 above.

6. Claims 1-10 and 12-21 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Schroeder in view of Josenhans.

Regarding claim 1, Schroeder discloses *a computer-implemented method of selecting an item from a plurality of items, the method comprising: generating, by at least one computer processor, a first display*. See abstract disclosing a word completion method for speeding up input. See also column 1, lines 38-53 and column 2, lines 21-25 disclosing selecting an item from a plurality of items. Schroeder further discloses a display as in figure 1A and column 1, lines 25-54.

Schroeder discloses *the first display comprises: a part of an item identifier corresponding to a first set of items and a part of an item identifier corresponding to a second set of items in a database*. See figure 1A, column 1, lines 39-45 and column 4, lines 31-40 disclosing a predictive keyboard input method that initially displays to a user the most commonly used characters for selected words in a particular language, associating those characters with programmable keys and accepting user's input. Thereafter, a next set of characters is displayed that are most likely to occur after the character previously input by the user. See also figure 3 depicting how when a user presses a programmable key such as "P" in figure 1A, the character subset shown in the display shifts to a new set comprising the seven most likely to occur characters after

P. Then when “L” is entered, the display shifts again. Each row of figure 3 represents different sets of item identifiers corresponding to different set of items.

However, to the extent that the term “database” in the limitation reading “a part of an item identifier for at least a second set of items in a database” is interpreted to mean “a different particular database”, Schroeder does not state that the second set of items is from a different particular database. However, Josenhans discloses simultaneous access to two or more databases in order to perform a search. See paragraph [0007]. Josenhans discloses that two sets of identifiers may exist in separate databases which meets the limitation, ***a part of an item identifier corresponding to a second set of items in a database.*** See paragraph [0010] disclosing that a search table is set up in which, **for each connected database**, at least the immediate predecessor and immediate successor to the entered search term and, if the search term itself is found in the database, the search term itself is stored. If the search term has not been found in the connected database, then among the immediate successors stored in the search table, the one selected is the one that is closest after the search term. This successor is then displayed. This allows users to search various databases.

It would have been obvious to a skilled artisan at the time of the invention to have incorporated Josenhans’ database structure into Schroeder because there is an advantage to searching multiple databases as simply as searching one database in that it is more efficient, faster, convenient, and utilizes low memory capacity and low transfer rates. See paragraphs [0010]-[0012] of Josenhans.

Schroeder discloses ***enabling, by the at least one computer processor, selection of one of the two parts of the item identifiers by a user using a user interface.*** See figure 1A where a user can select one of the two parts of the item identifier. See also column 4, lines 31-61.

Schroeder discloses ***generating, by the at least one computer processor, in response to the selection of the one of the two parts, a further display; wherein the further display comprises: an additional part of an item identifier corresponding to a subset of the selected set of items and another additional part of an item identifier corresponding to another subset of the selected set of items.*** See figures 3-4 and column 5, lines 52-column 6, line 10 depicting and describing how different sets of identifiers are displayed for the set of items based on the selected letters. Each right-hand entry in FIG. 3 represents characters that would be displayed in the display 11 of a hand-held unit in accordance with the present invention. The left-most column indicates either the initial display (row a), or the characters or symbols entered by a user (rows b-r). For example, the initial character "P" is one of the characters initially shown in the display 11. When the user presses the programmable key 7 corresponding to the character "P", the character subset shown in the display shifts to a new set, comprising the seven characters most likely to occur after the character "P". As can be seen in row b, the next character to be entered, "L", is already shown in the shifted display. Continuing on in this fashion, the entire phrase "PLEASE CALL" can be entered simply by selecting one of the programmable keys 7 corresponding to one of the characters shown in the display 11.

Schroeder discloses ***enabling, by the at least one computer processor, selection of one of the two additional parts of the item identifiers by the user using the user interface; combining, by the at least one computer processor, the selected one of the two parts of the item identifiers with the selected one of the two additional parts of the item identifiers to create a larger part of the item identifiers***; See figures 3-4 and column 5, lines 52-column 6, line 10 depicting and describing how different sets of identifiers are displayed for the set of items based on the selected letters. Each right-hand entry in FIG. 3 represents characters that would be displayed in the display 11 of a hand-held unit in accordance with the present invention. The left-most column indicates either the initial display (row a), or the characters or symbols entered by a user (rows b-r). For example, the initial character "P" is one of the characters initially shown in the display 11. When the user presses the programmable key 7 corresponding to the character "P", the character subset shown in the display shifts to a new set, comprising the seven characters most likely to occur after the character "P". As can be seen in row b, the next character to be entered, "L", is already shown in the shifted display. Continuing on in this fashion, the entire phrase "PLEASE CALL" can be entered simply by selecting one of the programmable keys 7 corresponding to one of the characters shown in the display 11.

Schroeder discloses ***and displaying, by the at least one computer processor, the larger part of the item identifiers***. See figure 4 depicting the displaying of the larger part of the item identifiers.

Schroeder discloses ***wherein the additional parts of the item identifiers are shorter than complete item identifiers.*** See figures 1, 3, and 4 where the additional parts are shorter than the complete item identifiers.

Schroeder discloses ***and the first set of items identifiers and the second set of item identifiers are mutually exclusive of one another.*** See figure 3 outlining how a new set of identifiers is displayed reflecting next letter. Each part of the item identifier (i.e. letter corresponds to a matching word in the dictionary with that item identifier as the first letter. The first and second sets of item identifiers corresponding to different letters are mutually exclusive. For example “P” corresponds to words starting with “P” and “S” would correspond to words starting with “S”, thus the sets are mutually exclusive. Similarly, the third and fourth set of item identifiers are mutually exclusive subsets of the first or second set of item identifiers as depicted in figure 3. The set of matching words is reduced to a subset as each additional letter is added. See also figure 6 depicting the tree structure depicting how mutually exclusive subsets exist.

Regarding claim 2, Schroeder discloses ***the method in accordance with claim 1, comprising a further step of iterating the selections until the item identifiers are completed.*** See figure 3 and column 5, lines 58-column 6, line 3 disclosing the example phrase “PLEASE CALL HOME” and how the character subsets shifts in the display until the selected phrase is entered.

Regarding claim 3, Schroeder discloses ***the method in accordance with claim 1, wherein the step of generating the first display includes selecting the parts of the item identifiers for the first and second set of items to be displayed based on***

predetermined criteria. See figure 1a and column 5, lines 15-30 disclosing, *“The determination of which characters to display in a particular subset can be made by statistical analysis of sample text from a particular language. For example, applicants have determined, from a set of particular English words commonly used for simple messages (e.g., “call”, “meet”, “today”, “tomorrow”, etc.), that the seven most common initial characters are those shown in the display 11 of FIG. 1. Pressing the “more” function key would display the next seven most common initial characters, and so forth. In the preferred embodiment, a table is constructed in memory having (1) the characters of the English alphabet ranked in order of their occurrence as initial characters of English text, and (2) an entry for every individual character of the alphabet, with each entry comprising a list of the most common characters occurring after each such character. For example, for the character “A”, the list entry would be the 25 characters of the alphabet in order of their statistical occurrence after the character “A.”*”

Regarding claim 4, Schroeder discloses ***the method in accordance with claim 1, wherein one of the predetermined criteria is a frequency of selection of database items associated within the item identifier parts for the first and second set of items.*** See column 5, lines 42-46 disclosing, *“In an alternative embodiment, the cellular telephone 1 allows a user to enter a list of words that the user frequently uses in messages (e.g., names, locations, products, etc.) and the internal CPU 20 builds a character frequency table from that specific set of words. In yet another embodiment, the cellular telephone 1 comes with a pre-defined set of character frequencies, which may be modified by analyzing the character frequencies of messages entered by a user*

over time) so that the table of character frequencies automatically adapts to the types of words used by the user."

Regarding claim 5, Schroeder discloses *the method in accordance with claim 1, wherein one of the predetermined criteria is a ranking of the parts of item identifiers for the first and second set of items in relation to a tree hierarchy classification of the parts of item identifiers for the first and second set of items.*

See column 5, lines 15-30 disclosing, *"The determination of which characters to display in a particular subset can be made by statistical analysis of sample text from a particular language. For example, applicants have determined, from a set of particular English words commonly used for simple messages (e.g., "call", "meet", "today", "tomorrow", etc.), that the seven most common initial characters are those shown in the display 11 of FIG. 1. Pressing the "more" function key would display the next seven most common initial characters, and so forth. In the preferred embodiment, a table is constructed in memory having (1) the characters of the English alphabet ranked in order of their occurrence as initial characters of English text, and (2) an entry for every individual character of the alphabet, with each entry comprising a list of the most common characters occurring after each such character. For example, for the character "A", the list entry would be the 25 characters of the alphabet in order of their statistical occurrence after the character "A".*" See also figure 6 depicting and disclosing the dictionary tree leading to the completion of words. Column 7, lines 10-21 further discloses, *"FIG. 6 shows a diagram of a portion of a dictionary tree, showing how the search function used for the word completion can be implemented. In the example shown, a first tier 600 has individual letters of the alphabet, the letter "P" being shown. A*

next tier 602 of the dictionary tree contains letters of words in the dictionary that follow the letter of the preceding tier. In the example shown, the letters "A", "L", and "R" are shown. Additional tiers 604, 606 may be used to extend the dictionary tree, as shown in FIG. 6. The "leaf" nodes of the dictionary tree may contain single letters (such as the entry "P-A-T") or multiple letters (such as the entry "P-L-E-ASE"). The dictionary tree may be as extensive as desired." The tree is in conjunction with word completion which is in addition to predictive text application. See column 6, lines 17-20.

Regarding claim 6, Schroeder discloses *the method in accordance with claim 1, wherein the item identifiers are text strings.* Specifically, Schroeder supports using groups of letters or multiple characters and the system predicts the next letter. See column 5, lines 15-41 for examples of groups of letters or sets of characters as text strings. For example, if a user enters the characters "th", the frequency of characters occurring after that combination are determined and made entries in the table. Other rules for generating the character subsets may be adopted as desired.

Regarding claim 7, Schroeder discloses *the method in accordance with claim 6, wherein the item identifiers are words.* See for example figure 3 and column 5, lines 52-column 6, line 10 describing examples of how the item identifiers are words such as "Please".

Regarding claim 8, Schroeder discloses *the method in accordance with claim 1, wherein the database is stored in a memory of the computing device.* See column 5, lines 24-29 disclosing a table is constructed in memory having characters of

the English alphabet and an entry or every character of the alphabet. See also other disclosures of the dictionary look up tables.

Regarding claim 9, Schroeder discloses *the method in accordance with claim 8, wherein the computing device is a mobile telephone*. See figure 4 and it's description in column 2, lines 45-47 depicting a cellular phone. See also column 12, lines 19-25 disclosing the invention can be used with any hand held communication device.

Regarding claim 10, Schroeder discloses *the method in accordance with claim 8, wherein the computing device is a Personal Digital Assistant (PDA)*. See column 12, lines 19-25 disclosing the invention can be used with any hand held communication device such as a PDA.

Regarding claim 12, claim 12 is drawn to the system corresponding to the method of claim 1 above. Accordingly, claim 12 is rejected under the same rationale provided in claim 1 above. The additional elements of an output display, an input, and a computer processor are disclosed in column 12, lines 7-24 as it was known to a skilled artisan at the time of the invention that display screens, input devices, and processors are part of hand-held communication devices such as a mobile phone, PDA, PCs, etc. See also the general disclosure and figures depicting and describing output displays, inputs, and processors.

Regarding claims 13-14 and 15-21, claims 13-14 and 17-21 are drawn to the system corresponding to the method claims in claims 3-4 and 6-10 respectively above.

Accordingly, claims 13-14 and 17-21 are rejected under the same rationale provided in claims 3-4 and 6-10 above. Claims 15-16 are drawn to the system corresponding to the method claims in claim 5 above. Accordingly, claims 15-16 are rejected under the same rationale provided in claim 5 above.

Other References Submitted by the Requester

7. The other rejections proposed by the Requester are highly material and relevant; however, because the proposed rejections are deemed to stand or fall within the rejections of the claims in the instant Office action, additional rejections based on them would be redundant and unnecessary at this time.

Therefore, the claim rejections based upon these references are not made at this time as such would appear to be cumulative to the claim rejections advanced therein.

Response to Arguments

8. PO's arguments filed 06/28/2022 have been fully considered but they are not persuasive.

PO argues there is insufficient motivation to combine Josenhans with the primary references, Badarneh and Schroeder. PO cites several cases to argue that there is no motivation to combine Josehans with the primary references and any combination is merely based on hindsight. PO argues Josenhans is directed to a different problem than the primary references and the instant patent and has nothing to do with speeding up entry of a search query, instead taking the search query as given. PO further argues Josenhans pertains to the problem of how to search across multiple devices and returns

results that include items that are not the sought-after item, including items that come before and after the sought-after item. PO argues the only reason one would combine Josenhans with the primary references is if they were trying to fill in missing elements.

Examiner disagrees.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Josenhans is applied in the rejections to address an interpretation in which the term "database" in the limitation reading "a part of an item identifier for at least a second set of items in a database" is interpreted to mean "a different particular database" (see related IPR-2020-00740 Decision mailed on 09/22/2020). Badarneh does not state that the second set of items is from a different particular database. However, Josenhans discloses simultaneous access to two or more databases in order to perform a search. See paragraph [0007]. Josenhans discloses that two sets of identifiers may exist in separate databases which meets the limitation, ***a part of an item identifier for at least a second set of items in a database***. See paragraph [0010] disclosing that a search table is set up in which, **for each connected database**, at least the immediate predecessor and immediate successor to the entered search term and, if the search

term itself is found in the database, the search term itself is stored. If the search term has not been found in the connected database, then among the immediate successors stored in the search table, the one selected is the one that is closest after the search term. This successor is then displayed. This allows users to search various databases. It would have been obvious to a skilled artisan at the time of the invention to have incorporated Josenhans' database structure into Badarneh because there is an advantage to searching multiple databases as simply as searching one database in that it is more efficient, faster, convenient, and utilizes low memory capacity and low transfer rates. See paragraphs [0010]-[0012] of Josenhans.

Regarding PO's argument that Josenhans is directed to a different problem than the primary references and the instant patent and has nothing to do with speeding up entry of a search query, instead taking the search query as given, Examiner disagrees that Josenhans does not speed up search queries. Paragraphs [0011]- [0013] of Josenhans discloses that one of the particular advantages of the invention is for speeding up the search, making searches more convenient by requiring little memory space and providing a high level of convenience. Further, Josenhans states that performing the search in a precise order of sorting allows for a faster and more convenient search.

Regarding the PO argument that Josenhans pertains to the problem of how to search across multiple devices and returns results that include items that are not the sought-after item, including items that come before and after the sought-after item and that the only reason one would combine Josenhans with the primary references is if they were trying to fill in missing elements, Examiner disagrees.

As noted above, Josenhans is applied in the rejections to address an interpretation in which the term “database” in the limitation reading “a part of an item identifier for at least a second set of items in a database” is interpreted to mean “a different particular database” (see related IPR-2020-00740 Decision mailed on 09/22/2020). Badarneh does not state that the second set of items is from a different particular database. However, Josenhans discloses simultaneous access to two or more databases in order to perform a search. See paragraph [0007]. Josenhans discloses that two sets of identifiers may exist in separate databases which meets the limitation, ***a part of an item identifier for at least a second set of items in a database***. See paragraph [0010] disclosing that a search table is set up in which, **for each connected database**, at least the immediate predecessor and immediate successor to the entered search term and, if the search term itself is found in the database, the search term itself is stored. If the search term has not been found in the connected database, then among the immediate successors stored in the search table, the one selected is the one that is closest after the search term. This successor is then displayed. This allows users to search various databases. It would have been obvious to a skilled artisan at the time of the invention to have incorporated Josenhans’ database structure into Badarneh because there is an advantage to searching multiple databases as simply as searching one database in that it is more efficient, faster, convenient, and utilizes low memory capacity and low transfer rates. See paragraphs [0010]-[0012] of Josenhans. Examiner disagrees that the additional teachings of Josenhans such as displaying non-sought after items disqualifies Josenhans from teaching the feature for which it is relied upon for teaching.

PO argues Badarneh and Schroeder (typo has been corrected above) are not deficient without a multiple database search feature and there would be no motivation to modify Badarneh or Schroeder.

Examiner disagrees.

Badarneh and Schroeder's systems do not search multiple databases and in the event an entered search term is not found in one database, Josenhans' ability to search multiple database is beneficial as such simultaneous access is advantageous for locating an item that may exist in another database. Such parallel searching is more efficient, faster, convenient and utilizes low memory capacity and lower transfer rates.

Regarding PO's arguments that Josenhans does not satisfy the limitation reciting the first and second set of item identifiers are in separate databases because items in those databases are not necessarily mutually exclusive of one another, Examiner disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Badarneh or Schroeder are relied upon to disclose the first and second item identifiers are mutually exclusive of one another; whereas, Josenhans is relied upon to teach simultaneous access to two or more databases in order to perform a search in which two sets of identifiers may exist in separate databases. See paragraph [0007] and [0010] as noted above. It would have been obvious to a skilled artisan at the time of the invention to have incorporated Josenhans' database structure into Schroeder because there is an advantage to searching multiple databases as simply as searching

one database in that it is more efficient, faster, convenient, and utilizes low memory capacity and low transfer rates. See paragraphs [0010]-[0012] of Josenhans. Further, Examiner disagrees with the argument that those databases are not necessarily mutually exclusive of one another, as a first set of item identifiers and a second set of item identifiers in Josenhans' databases can be mutually exclusive of one another as depicted in tables I-IV and 4a-4c.

In view of the above, the rejections are maintained.

Conclusion

Submissions

9. THIS ACTION IS MADE FINAL.

A shortened statutory period for response to this action is set to expire two from the mailing date of this action.

Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). Any request for an extension in a third party requested ex parte reexamination must be filed on or before the day on which action by the patent owner is due, and the mere

filing of a request will not effect any extension of time. A request for an extension of time in a third party requested ex parte reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a patent owner requested ex parte reexamination (including reexamination ordered under 35 U.S.C. 257) for up to two months from the time period set in the Office action must be filed no later than two months from the expiration of the time period set in the Office action. A request for an extension in a patent owner requested ex parte reexamination for more than two months from the time period set in the Office action must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a patent owner requested ex parte reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional two months. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

10. In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37

CFR 1.116, after final rejection and 37 CFR 41.33 after appeal, which will be strictly enforced.

Notification of Concurrent Proceedings

11. The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No 8,996,579 B2 throughout the course of this reexamination proceeding. The third-party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Extension of Time

12. Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

13. All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By Mail to: Mail Stop *Ex Parte* Reexam
 Central Reexamination Unit
 Commissioner for Patents
 United States Patent & Trademark Office
 P.O. Box 1450
 Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
 Central Reexamination Unit

By hand: Customer Service Window
 Randolph Building
 401 Dulany Street
 Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at:

<https://efs.uspto.gov/efile/myportal/efs-registered>

EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

/Rachna S Desai/
Primary Examiner
Central Reexamination Unit – Art Unit 3992

Conferees:

Application/Control Number: 90/014,761
Art Unit: 3992

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