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

The time period for reply, if any, is set in the attached communication.



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

REEXAMINATION CONTROL NO. 90/014,759 .

PATENT UNDER REEXAMINATION 9697264 .

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.

### **Ex Parte Reexamination**

This is a Final Office Action, responsive to the Response submitted on 7/14/2022, affecting claims 1-18 of United States Patent Number: 9,697,264 issued to Dinn (hereinafter the '264 patent). The Reexamination was ordered on 7/2/2021 in response to the Request for *ex parte* reexamination filed 5/28/2021.

On 7/28/2021 (supplemental arguments dated 10/1/2021), Patent Owner filed a petition under 37 C.F.R. § 1.181 requesting the Office rescind the Order on grounds of 35 U.S.C. 325(d). This Petition has since been dismissed by the Office on 2/23/2022 noting:

*“The present reexamination proceeding is only Samsung’s second challenge to the same claims of the ’264 patent before the Office, and the totality of the grounds in the Request that raise an SNQ do not present the same or substantially the same prior art or arguments as the grounds presented in the ’0736 IPR, which proceeding was denied institution on the merits. The Office has considered all of the patent owner’s arguments concerning 35 U.S.C. 325(d), and in view of the particular facts and circumstances in this instance, patent owner’s July 28, 2021 petition (supplemented on October 1, 2021), requesting the Office*

*to vacate the present ex parte reexamination pursuant to 35 U.S.C. 325(d), is dismissed.*" (see the full DECISION ON PETITIONS for further explanation)

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 *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

#### **References**

- Pearlman et al., U.S. Publication No.: 2002/0113825 (hereinafter Pearlman / Ex. 1005)
- Dostie et al., U.S. Publication No.: 2004/0021691 (hereinafter Dostie / Ex. 1006)
- Badarneh, WO 2002-091160 (hereinafter Badarneh / Ex. 1007)
- Josenhans, U.S. Publication No.: 2002/0078013 (hereinafter Josenhans / Ex. 1008)
- Schroeder et al., U.S. Patent No.: 5,797,098 (hereinafter Schroeder / Ex. 1009)
- Krohn, U.S. Patent No.: 6,593,913 (hereinafter Krohn / Ex. 1010)

## Prosecution History

### Original Prosecution:

The patent application that issued as the '264 Patent was originally filed as a PCT on December 28, 2007 and entered in to national stage on February 22, 2010 as U.S. Patent Application No. 12/448,601 (the '601 Application”).

8/27/2012 – The Office issued a Non-Final Office Action rejecting Claims 1-7, 12-13, 16-18, and 21-26 of the '601 Application under 35 U.S.C. §102 over Dinn (US 2005/0043063), claims 3 and 20 over Dinn in view of O'Dell (US 6,801,559), Claim 8 over Dinn in view of Boillot (US 2008/0235621), Claims 9 and 10 over Dinn in view of Alabaster (US 2003/0129570) Claims 11 and 14 over Dinn in view of Kraft et al. (US 6,744,423), claim 15 over Din in view of Kraft in further view of Kemppinen (US 2004/0227732), and claim 19 over Dinn and Ramer et al. (US 2007/0060114). The Non-Final Office Action further provisionally rejected claims 1, 2, 12, 13, 16, and 17 on the ground of nonstatutory obviousness-type double patenting over claim 52, 53, and 56-59 of co-pending US Application 13/081990 in view of Kraft et al. (US 6,744,423).

4/5/2016 – The Patent Owner filed an amended claim set adding in claim language for:

- “selecting items from at least two collections of items, said at least two collections of items being individually indexed by a list of respective item identifiers...”

- “generating, on a device, an initial display including a plurality of parts of said item identifiers for selection, wherein said plurality of parts of said item identifiers include at least one part of said item identifier corresponding to a first collection of items and at least one part of said item identifier corresponding to a second collection of items”
- “enabling selection of one of said plurality of parts of said item identifiers;
- identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to;
- generating, on said device, a display of a further plurality of parts of said item identifiers for selection in response to selection of said one or more parts, wherein said further plurality of parts of item identifiers include at least one further part of said item identifiers corresponding to the one or more collections of items identified based on the selection of said one or more parts;

7/13/2016 – The Patent Owner filed a Terminal Disclaimer disclaiming the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the fully statutory term of the prior patents:  
8,996,579, 8,676,852, 8,375,058, 8,370,393.

7/18/2016 – The Office issued an Examiners amendment clarifying several issues in the claims and a Notice of Allowance allowing claims 1, 2, and 4-19 for the reason that:

*‘The prior art of record does not teach or render obvious the limitations "generating, on a device, an initial display including a plurality of parts of said item identifiers for selection, wherein said plurality of parts of said item identifiers include at least one part of an item identifier corresponding to a first collection of items and at least one part of an item identifier corresponding to a second collection of items; enabling selection of one of said plurality of parts of said item identifiers; identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to; generating, on said device, a display of a further plurality of parts of said item identifiers for selection in response to selection of said one of said plurality of parts of said item identifiers, wherein said further plurality of parts of item identifiers include at least one further part of said item identifiers corresponding to the one or more collections of items identified based on the selection of said one of said plurality of parts of said item identifiers" in the combinations recited in claim 1.’*

***inter partes* Review:**

**IPR2020-00736:**

Petitioner previously filed a petition for IPR against the 9,697,264 patent citing U.S. Patent Nos. 7,152,213 (Pu), 6,59,913 (Krohn), and 5,797,098 (Schroeder) as well as U.S. Pat. Pub. No 2002/0113825 (Perlman) and 2004/002169 (Dostie) on March 17, 2020. On September 22, 2020, the Board denied institution. Ex. 1012

The Board denied institution partly on their finding that neither Perlman nor Pu disclosed “said at least two collections of items being individually indexed.” Similarly, the Board rejected petitioner’s arguments around Krohn in combination with Dostie finding the combination did not sufficiently disclose “wherein generating said initial display comprises selecting said one or more parts of said item identifiers to be displayed based on a dynamic prioritization scheme that adjusts priorities of said item identifiers based on the number of times a particular item identifier from said list of item identifiers was previously selected.” The Board found that this combination did not sufficiently explain how “the learning algorithm of Dostie . . . would be combined with Krohn’s ‘populating circles’ algorithm ... to determine the next set of characters to display” (Ex. 1012 at 35).

**Litigation History**

The ‘264 Patent is currently involved in the below cited litigation:

*Kannuu Pty Ltd. v. Samsung Electronics Co., Ltd., No. 1:19-cv-4297 (S.D.N.Y)*

*Kannuu Pty Ltd. v. Samsung Electronics Co., Ltd., No. 21-1638 (US CAFC) (appeal of 1:19-cv-4297)*

### **Claim Construction**

The IPR revealed a discrepancy between the Patent Owner and the 3PR as to how limiting language surrounding the ‘said at least two collections of items being individually indexed’ should be. 3PR has taken the position and continues to assert that “the broadest reasonable interpretation of this claim neither requires separate databases nor separate dictionaries”, where the Board found the language to be far more limiting.

As an initial matter the Examiner notes that the body of the claim builds on a definition set forth in the preamble specifically discussing the separate collections of items individually.

#### ***MPEP 2011.02:***

*"If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is ‘necessary to give life, meaning, and vitality’ to the claim, then the claim preamble should be construed as if in the balance of the claim." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999).*

...

#### ***I. PREAMBLE STATEMENTS LIMITING STRUCTURE***

*Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. See, e.g., Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989)*

The Examiner further notes that the specification defines, in column 32, lines 8-39 and column 43, lines 22-43, searching from “multiple, simultaneous dictionaries”, where the system provides “two partial word completion dictionaries being traversed simultaneously”. The specification further explains ‘structures’ it views as a ‘dictionaries’, i.e. list of media / help items (see column 43, lines 22-41). Given the claims organization and the support from the specification, the Examiner interprets the “individually indexed” “collections” to be separately stored data stores, where the specification defines these as either dictionaries or databases.

### ***Claim Rejections - 35 USC § 103***

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.

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.

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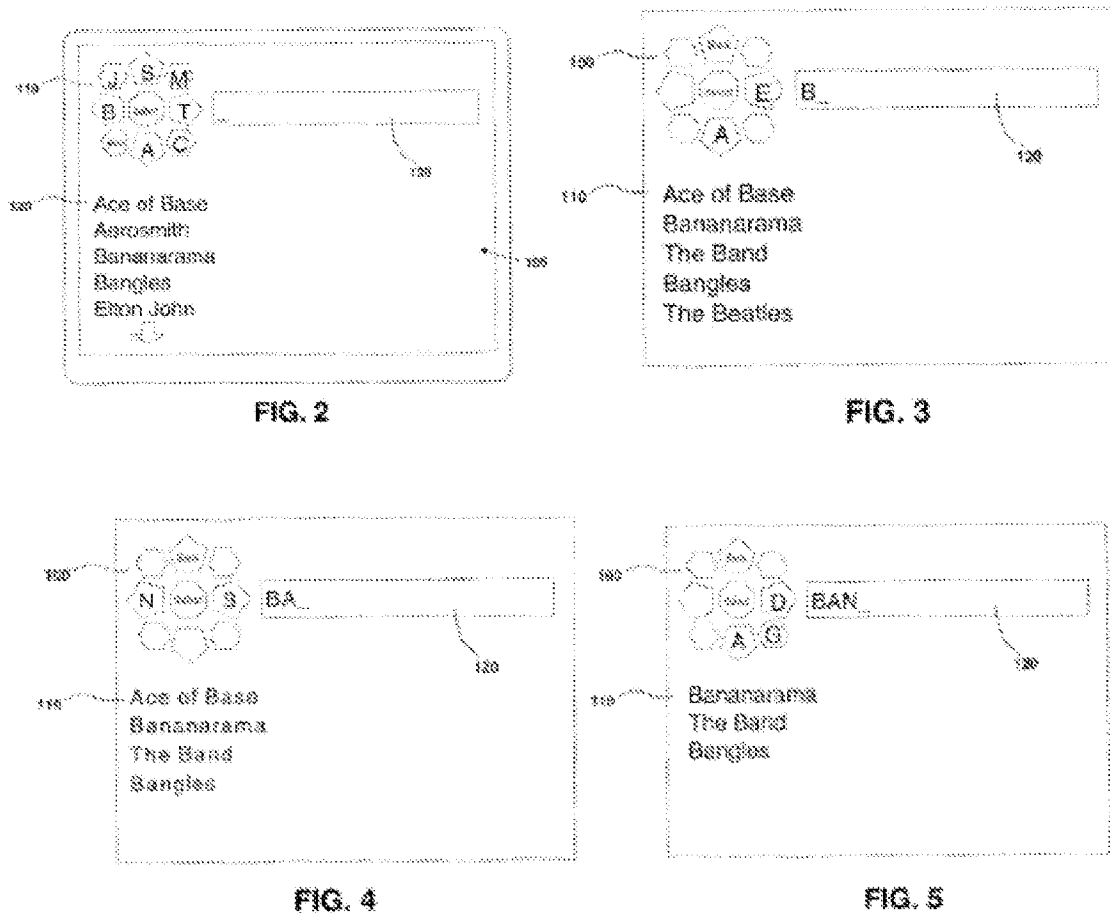
**Rejection 1: Perlman / Dostie / Josenhans (Krohn / Badarneh)**

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Claims 1-8, 11, 12 and 15-18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0113825 to Perlman et al (“Perlman” / Ex. 1005), U.S. Publication No. 2004/0021691 to Dostie et al. (“Dostie” / Ex. 1006), and U.S. Publication No. 2002/0078013 to Josenhans et al. (“Josenhans” / Ex. 1008).

With regard to claim 1, the combination teaches “***two collections of items being individually indexed***” ... where “***an initial display including a plurality of parts of said item identifiers for selection, wherein said plurality of parts of said item identifiers include at least one part of an item identifier corresponding to a first collection of items and at least one part of an item identifier corresponding to a second collection of items...***”; in that Perlman teaches searching a database of organized entries by partial input based prediction of a user’s intended search target (Ex. 1005, [0019] and [0025]). Perlman describes different database lists such as one database list as a “list of available multimedia content” accessible by the television/computer (Ex. 1005, [0017]) while other database lists may include words of messages previously transmitted to buddies (id., [0033] - [0034]) or words in a “built-in dictionary” that is automatically extended each time a user enters a full word ([0035] - [0036]). Perlman further discloses, in Figures 2-8, a GUI with character-mapped buttons 110 in a “star” configuration corresponding to the same “star”

configuration on a remote control input device to a television. *Id.*, [0014], Other configurations are also expressly disclosed. Ex. 1005, [0016]. The GUI includes an initial display with one or more parts of item identifiers (.e.g., the letters shown in area 110) for selection by a user, with the list of entries continuously changing to reflect the user's character selections (see Ex. 1005, [0025]).



*Id.*, Figs. 2-5.

Josenhans teaches a system for searching database entries where partial text entry reveals options from the database including adjacent entries that the user may be intending to enter [0035] - [0037]. Josenhans further teaches "a search table is thus set

up in which, for each connected database...” “He thus has the impression that he is searching for the desired information in a single database. This allows the user to search in various databases just as simply as when searching in a single database.” Ex. 1008 at [0010]. Accordingly, Josenhans discloses a system where various search terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases.

The combination further teaches **enabling selection of one of said plurality of parts of said item identifiers**; Perlman discloses this limitation. Ex. 1003, 9584. A user may select a letter from the GUI by using the character-mapped buttons of the star configuration of the remote control device. Ex. 1005, [0017] (“As the user selects letters via the displayed character-mapped buttons 110, the user’s letter selections will appear in a text box 130, and the database list 120 will change to reflect the user’s selections.”).

The combination further teaches **identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to**; in that as the user types, Perlman identifies which of the at least two collections of items the selected part of the item identifier corresponds to and displays a new database list 120 “to reflect the user’s selections.” Ex. 1005, [0017], For example, once an initial letter is selected, all items matching that collection are identified and included in the new database list. Ex. 1005, [0017] (“Initially (i.e., before the user has selected a character), the alphanumeric

characters mapped to the character-mapped buttons 101, 110 correspond to the most common first letters of words in the database list 120. Once the user selects a first character, a new set of characters are mapped to the character-mapped buttons 101,110 which correspond to the most common second letters of words in the database list 120 which begin with the first-selected character.”). In addition, Perlman discloses a “prioritization” scheme where a built-in dictionary is used in the word selection/linking process. Ex. 1005, [0033]-[0035], Perlman therefore identifies whether the selected part of the item identifier corresponds to a word in the built-in dictionary (one “collection”) or has been previously transmitted to a buddy (another “collection”).

To the extent Perlman does not disclose this feature, Dostie discloses a character prediction process where multiple active dictionaries (or “collections”) may be used and the system identifies which dictionary a selected part of an item identifier corresponds to. Ex. 1011, [0157] (multiple active dictionaries), [0167] (combining search results for character prediction from multiple dictionaries), [0215] (multiple active dictionaries with adjustable priorities). It would have been obvious to support multiple collections or active dictionaries in Perlman, as taught by Dostie, so that a user could search for items across collections, such as a song title, song artist, or song genre.

The combination further teaches **generating, on said device, a display of a further plurality of parts of said item identifiers for selection in response to selection of said one of said plurality of parts of said item identifiers, wherein said further plurality of parts of item identifiers include at least one further part of said item identifiers corresponding to the one or more collections of items identified based**

on the selection of said one of said plurality of parts of said item identifiers;

Perlman discloses this limitation. Ex. 1003, 9588-90. In Figures 2-8, Perlman describes a GUI with character-mapped buttons 110 in a "star" configuration corresponding to the same "star" configuration on a remote control input device to a television. *Id.*, §[0014].

After the user selects a letter (e.g., the character "B"), a new set of parts of item identifiers are automatically mapped to the character-mapped buttons of the "star" configuration GUI and displayed for another user selection, as shown below.

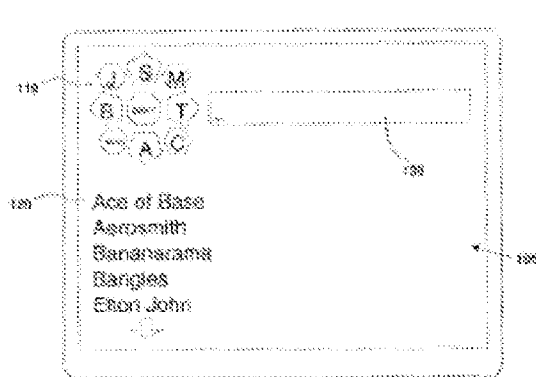


FIG. 2

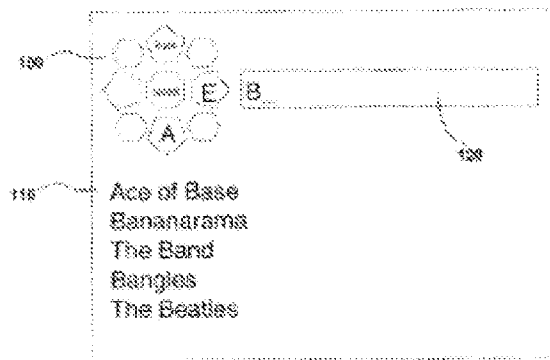


FIG. 3

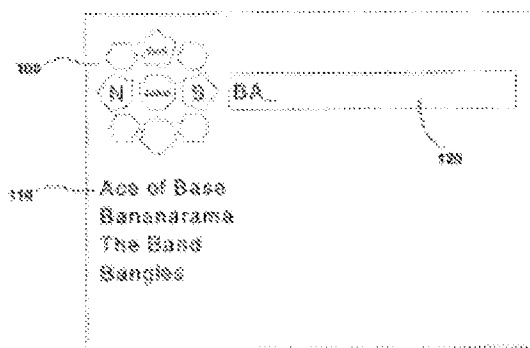


FIG. 4

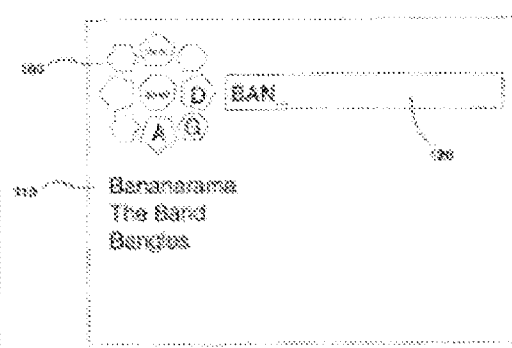


FIG. 5

*Id.*, Figs. 2-5.

The new parts of item identifiers are selected for display using a ranking scheme based at least in part on the “most common” next letters in the database list matching the item identifiers. Ex. 1003, ¶590; Ex. 1005, ¶[0017] (“Initially (i.e., before the user has selected a character), the alphanumeric characters mapped to the character-mapped buttons 101, 110 correspond to the most common first letters of words in the database list 120. Once the user selects a first character, a new set of characters are mapped to the character-mapped buttons 101, 110 which correspond to the most common second letters of words in the database list 120 which begin with the first-selected character.”).

The combination further teaches **enabling selection of one of said further plurality of parts of said item identifiers in order to add to said selected one of said plurality of parts of said item identifiers to build a larger part or whole of said selected item identifier**; Perlman discloses this limitation. Ex. 1003, ¶591. A user may select a letter from the GUI by using the character-mapped buttons of the star configuration of the remote control device. Ex. 1005, ¶[0017] (“As the user selects letters via the displayed character-mapped buttons 110, the user’s letter selections will appear in a text box 130, and the database list 120 will change to reflect the user’s selections.”). As shown above, the letter ‘A’ is added to ‘B’ to build ‘BA’ in Figure 4, and the letter ‘N’ is added to ‘BA’ to build ‘BAN’ in Figure 5.

The combination further teaches **wherein generating said initial display comprises selecting said one or more parts of said item identifiers to be displayed based on a dynamic prioritization scheme that adjusts priorities of**

**said item identifiers based on the number of times a particular item identifier from said list of item identifiers was previously selected**, in that Perlman discloses the parts of item identifiers are selected for display based on dynamic prioritization schemes, including “the user’s preferences for each of the multimedia selections,” such as frequency of playback, or a combination of user preferences and “incidence of each of the characters.” Id., [0019] (describing rankings based user preferences, such as frequency of playback, and rankings based on combinations of 50% character incidence/50% user preferences or 75% character incidence/25% user preferences). Accordingly, “if a user plays back a particular multimedia program more frequently than any other program, the characters corresponding to that program may be displayed, notwithstanding the fact that they are relatively uncommon.” Id. In addition, Perlman discloses a “built-in dictionary” that is “extended each time a user enters a full word.” Id., [0035]. Perlman therefore discloses dynamic prioritization based on the number of times a particular item identifier from the list of item identifiers was previously entered/selected. Id. (“Prioritization in the word list in this embodiment may be decided based on the number of words that are known to precede the dictionary entry, and/or based on the frequency of the dictionary entry.”)

Dostie also discloses this feature. Dostie describes assigning and adjusting the priorities of the active dictionaries, permitting the user to “influence when completion candidates from particular dictionaries will appear in the search list.” Ex. 1006, [0215]. In addition, each active dictionary in Dostie possess a “learning ability” whereby the dictionary is “programmed to learn to adapt the rankings of completion candidates within the candidate tree 21 to the preferences of the user as the

data entry system 26 is used over time.” Id., [0208]-[0215], Each time the user selects a particular item identifier, “the preference values of the nodes involved are incremented,” causing the system to prioritize dynamically previously selected items. Id., [0209]. It would have been obvious to incorporate Dostie’s dynamic prioritization scheme into Perlman so that the predicted characters were more relevant to the user, making input even more efficient.

It would have been obvious to incorporate Dostie’s dictionary trees (with mutually exclusive identifiers and subsets of identifiers) stored in memory of computing devices and rankings based on tree hierarchy classifications into Perlman because it was well known at the time of Perlman to conduct database searches using hierarchical trees like the ones described in Dostie. Ex. 1003, ¶617. Moreover, Dostie provides express motivation to incorporate its candidate trees into systems like Perlman in order to “rapidly predict potential completion candidates” and “provide[] a mechanism for supporting enhanced data entry techniques such as character prediction,” like the mechanisms described in Perlman. Ex. 1006, ¶[0097].

As explained by Dr. Forlines, “the most efficient way to identify matching prefixes would be to use a hierarchical search tree.” Ex. 1003, ¶618. This is because “a hierarchical search tree promotes efficient traversal forward and backward through a series of search candidates, which are often stored in nodes of the tree.” Id. In addition, “the nodes of a search tree are often associated with weights, which can be used in the candidate ranking process.” Id. Hierarchical trees also “promote simple ranking of

candidates stored in the tree because the number of nodes in the search path through the tree can simply be summed (for example, ranking of 1 per node).” *Id.* In fact, database search techniques routinely used search trees and other hierarchical classifications in the searching, ranking, and selection processes. *Id.* Moreover, as described above, Perlman already displays a sorted list of database items matching the first NV letters of the user’s input. At the time of Perlman, this form of search was almost always performed using a hierarchical search tree. *Id.* Because of the well-known benefits of using hierarchical search trees to search a database, these trees would have been “a trivial and routine addition” to Perlman that would have permitted simple and efficient searching based on a known prefix of database entries, like the searching discussed in Perlman. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (combination of familiar elements according to known methods is likely obvious when it does no more than yield predictable results). This is especially true since Perlman discloses “forward and backward/reverse searching capabilities” (Ex. 1005 at [0027]) that would “likely have used hierarchical search trees as these were in standard use for database searching at the time to move back and forward through the tree. Ex. 1003, ¶618.

It would have been equally obvious to incorporate Josenhans’ database structures into Perlman and Dostie because, like Perlman, Josenhans deals with a system of text entry techniques, with character prediction, and a “method of searching for data in at least two databases.” Specifically, one of ordinary skill in the art would look

to references such as Josenhans to determine the best way to incorporate and setup the databases of Perlman. Ex. 1003, ¶620 (which further references ¶¶355-356).

With regard to claim 2, which teaches “[t]he method according to claim 1, further comprising: enabling selection of additional parts of said item identifiers until said item identifier is completed, and enabling selection of the item identifier to select the item.” Perlman discloses this limitation. Ex. 1003, ¶595. A user can continue selecting additional letters until the multimedia program or title is completed. Ex. 1005, ¶ [0017], [0025] -[0026] (describing examples in which the user iterates the selections until “ACE OF BASE’ or ‘BANGLES’ is selected using the select button).

With regard to claim 3, which teaches “[t]he method according to claim 1, wherein said item identifiers includes a sequence of one or more text symbols and said plurality of parts of said item identifier is a subsequence of text symbols.” Perlman discloses this limitation. Ex. 1003, ¶596. As shown in the figures above, the item identifiers correspond to available multimedia content (artist titles or song titles), entered one text symbol at a time.

With regard to claim 4, which teaches “[t]he method according to claim 3, wherein said item identifiers are each a text string.” Perlman discloses this limitation. Ex. 1003, ¶597. As shown in the figures above, the item identifiers correspond to available multimedia content (artist titles or song titles), which are text strings.

With regard to claim 5, which teaches “[t]he method according to claim 4, wherein said text string is a word.” Perlman discloses this limitation. Ex. 1003, ¶¶598-99. As shown in the figures above, the item identifiers correspond to available multimedia content (artist titles or song titles), which are words.

In addition to character item identifiers, Perlman supports groups of letters and “textual multi-word typing” where “the most likely series of words are provided in the content list 110 when the user selects a particular set of characters (e.g., based on the user’s prior typing).” Ex. 1005, ¶¶ [0029] (groups of letters), [0033]-[0034] (words). Groups of letters and sets of characters, such as the examples given in Perlman— “Ace of Base” and “Bangles”—include text strings and words. Id., ¶ ¶ [0025]-[0026].

With regard to claim 6, which teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of words from at least one language.” Perlman discloses this limitation. Ex. 1003, ¶600. Perlman discloses a “built-in dictionary” that can be “pre-trained” with a number of common word sequences from the English language. Ex. 1005, ¶ [0035].

With regard to claim 7, which teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of songs.” Perlman discloses this limitation. Ex. 1003, ¶601. Perlman discloses that its database list of “available

multimedia content” can support an “MP3 music title search” that includes is a collection of songs. Ex. 1005, ¶ [0017], Fig. 8.

With regard to claim 8, which teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of contacts.” Perlman in view of Dostie renders this claim obvious. Ex. 1003, ¶602. Dostie explains that “the data entry system 26 is able to use multiple character sequences (such as a phrase) to locate phrases, names, addresses and the like stored in the dictionary 20.” Ex. 1006, ¶ [0203]. Dostie also discloses that its dictionary is split into two sides—a completion candidate side and a corresponding “object side” that stores “objects such as names, addresses, phone numbers, and other information associated with the completion candidate.” Id., ¶ [0234]-[0235]. The “names, addresses, phone numbers” within the dictionary constitutes a collection of contacts. Ex. 1003, ¶602 . It would have been obvious for at least one collection of items in Perlman to be a collection of contacts, as described by Dostie, so that a user could more efficiently search for contact information in the same way as other types of information. Id. In other words, “using Perlman’s input interface on other types of content would have been a straightforward application yielding extremely predictable results (i.e., more efficient searching through a contact database).” Id.

To the extent Perlman does not disclose this feature, Dostie explains that its “rapid navigation system” permits a user to “move rapidly through data of any type that can be ordered by importance or frequency including, for example, web-sites (links or URLs), databases, news sources, inventories, menus and the like.” Ex. 1006, ¶ [0199].

It would have been obvious to apply Perlman's input system to a collection of selections from a menu because menus were commonly used in the television and computers described in Perlman and in particular when searching for multimedia content. Ex. 1003, ¶606.

With regard to claim 11, which teaches "[t]he method according to claim 1, wherein said method is performed in a computing device and the computing device is a mobile telephone." Perlman in view of Dostie and Josenhans render this claim obvious. Ex. 1003, 607. Josenhans discloses its use of databases in mobile phones: As electronic devices such as mobile telephones, that is to say car telephones and 'mobiles', cordless telephones, which communicate via a base station connected to the landline network, electronic notebooks and PCs, which contain databases, such as personal telephone directories, appointments diaries, personal address books, task lists and the like, become more and more widespread, there is the increasing problem that a user needs to manage various electronic telephone directories and/or electronic appointments diaries. Ex. 1008 at [0002].

Likewise, Dostie explains that its invention may be practiced with "other personal computing devices including other hand-held devices, personal computers and other microprocessor-based electronic devices, mobile telephones, internet appliances, and embedded devices." Ex. 1006, ¶ [0073]. It would have been obvious to port Perlman's enhanced input interface to mobile telephones because the benefits espoused by Perlman (more rapid text input without looking away from the display, see Ex. 1005, ¶

[0006]) are equally applicable to mobile telephones. Ex. 1003, 608. Moreover, Perlman already contemplates various types of electronic “displays” (computer, television, and automobile in-dashboard displays) as well as “touch screens” that were widely used in mobile telephones at the time. Ex. 1005, ¶ [0032]. A POSITA would therefore have ample motivation to port Perlman’s interface to a mobile telephone. Ex. 1003, ¶608.

With regard to claim 12, which teaches “[t]he method according to claim 1, wherein said method is performed in a computing device and the computing device is a PDA.” Perlman in view of Dostie and Josenhans render this claim obvious. Ex. 1003, ¶ 609. Josenhans discloses its use of databases in mobile phones: As electronic devices such as mobile telephones, that is to say car telephones and ‘mobiles’, cordless telephones, which communicate via a base station connected to the landline network, electronic notebooks and PCs, which contain databases, such as personal telephone directories, appointments diaries, personal address books, task lists and the like, become more and more widespread, there is the increasing problem that a user needs to manage various electronic telephone directories and/or electronic appointments diaries. Ex. 1008 at [0002]. Specifically, one of ordinary skill in the art would recognize that the different applications identified, including “personal telephone directories, appointments diaries, personal address books, task lists and the like” are precisely the applications that appear on PDAs. Therefore, Josenhans is describing PDAs.

Moreover, Josenhans describes the Nokia 9110 Communicator, which is known to one of ordinary skill in the art as having a PDA. See [https://en.wikipedia.org/wiki/Nokia\\_9000\\_Communicator](https://en.wikipedia.org/wiki/Nokia_9000_Communicator). A POSITA would have ample

motivation to port Perlman's interface to a PDA for the same reasons discussed above with respect to claim 9. Ex. 1003, ¶611.

Dostie explains that its "personal computing device 10 is a personal digital assistant (by way of example, the 1PAQ™ H36xx series)." Ex. 1006, ¶ [0073]. It would have been obvious to port Perlman's enhanced input interface to a PDA for the same reasons discussed above in connection with mobile telephones. Ex. 1003, ¶612.

With regard to claim 15, which teaches "[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of a touch screen." Perlman discloses this limitation. Ex. 1003, ¶613. Perlman explains that "[i]n one embodiment, a remote control device will not be required at all. For example, if a touch-screen is used for data entry, the user will be able to select characters directly from the computer/television display." Ex. 1005, ¶ [0032].

With regard to claim 16, which teaches "[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of programmable keys." Perlman discloses this limitation. Ex. 1003, ¶614. Figure 1A shows all nine programmable keys of the remote control device as character-mapped buttons, each having a different alphanumeric character mapped thereto. Ex. 1005, ¶ [0014].

With regard to claim 17, which teaches “[t]he method according to claim 1, wherein the method is performed on a computing device and at least one collection of items is stored on said computing device.” Perlman discloses this limitation. Ex. 1003, ¶615. Perlman explains that its embodiment may be performed by a computer program “include[ing] a machine-readable medium having stored thereon instruction.” Ex. 1005, ¶ [0038].

With regard to claim 18, which teaches “[t]he method according to claim 1, wherein the method is performed on a computing device and at least one collection of items is stored on a remote device.” Perlman discloses this limitation. Ex. 1003, ¶616. In addition to the embodiment discussed in relation to claim 17, Perlman discloses “the present may be transferred from a remote computer (e.g., a server)” thereby at least one collection of items is stored on a remote device. Ex. 1005, ¶ [0038].

Claims 9 and 10 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0113825 to Perlman et al (“Perlman” / Ex. 1005), U.S. Publication No. 2004/0021691 to Dostie et al. (“Dostie” / Ex. 1006), U.S. Publication No. 2002/0078013 to Josenhans et al. (“Josenhans” / Ex. 1008), and U.S. Patent No. 6,593,913 to Krohn et al. (“Krohn” / Ex. 1010)

With regard to claim 9, which teaches “[t]he method according to claim 1, wherein said item identifiers includes a graphical depiction.” Perlman in view of Dostie,

Josenhans and Krohn renders this claim obvious. Ex. 1003, ¶ 603. Krohn explains that its character selection process is “meant to broadly refer to any image that is presented on the display device 110 for selection by the user input device 120. Examples of ‘characters’ include, but are not limited to, alphanumeric characters (in English and/or non-English languages), punctuation, symbols (e.g., mathematical symbols), pictographic representations, and other images.” Ex. 1010, 3:28-37. At least “pictographic representations” would be examples of graphical depictions. Ex. 1003, ¶604. A POSITA would have also found it obvious to add Krohn’s pictorial representations to the user interface to allow the user interfaces to be used by a larger audience, including children and users who might have a difficult time seeing or reading letters. A POSITA would have readily understood that pictorial representations or graphical depictions often replace letters and words in common user interface designs. The addition of graphical depictions, as described in Krohn, would have been a mere user interface implementation choice that would have been well within the technical grasp of a POSITA at the time of the alleged invention. In addition, the use of graphical depictions would speed up the input of words (and the selection of database items) because the graphical depiction would represent multiple letters or characters—thus speeding up the input. Efficiency and speed of input would be increased—a core design incentive of the system described in Perlman. Ex. 1003, ¶619.

With regard to claim 10, which teaches “[t]he method according to claim 9, wherein at least one collection of items is a collection of selections from a menu.”

Perlman discloses this limitation. Ex. 1003, ¶605. In Perlman, selections are made “to rapidly enter alphanumeric characters (or other types of symbols) without looking away from the television/computer screen.” Ex. 1005, ¶ [0014]. The buttons on the remote control are used to “mak[e] various types of data selections” as well “movie]...through a menu structure.” Id.

Claims 13 and 14 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0113825 to Perlman et al (“Perlman” / Ex. 1005), U.S. Publication No. 2004/0021691 to Dostie et al. (“Dostie” / Ex. 1006), U.S. Publication No. 2002/0078013 to Josenhans et al. (“Josenhans” / Ex. 1008), and International Publication Number: WO 02/091160 to Badarneh (“Badarneh” / Ex. 1007).

With regard to claim 13, which teaches “[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of a joystick”, Perlman, Dostie, and Josenhans teach the above referenced system for accessing data from multiple databases in seamless fashion, but don’t specifically teach us of a joystick in input. Badarneh discloses this limitation. Ex. 1003, ¶669. Specifically, Badarneh discloses “The cursor fields will move across the functions which are in the field. Fig. 5d shows active navigation selected (by arrows). Alternative navigation can be obtained if a cursor control switch 11' is mounted in the center of the switch 11 (stepless joystick-like system).” Ex. 1007, 15:13-15. It would be obvious to one of ordinary skill in the art at

the time of the invention to include the use of an alternate well known input device in selection such as the joystick of Badarneh in the databases access system of Perlman, Dostie, and Josenhans. One would have been motivated to make such a combination as enable database access in an environment that uses a video game controller.

With regard to claim 14, which further teaches “[t]he method according to claim 13, wherein said joystick is a five-way joystick.” Badarneh discloses this limitation. Ex. 1003, ¶670. Specifically, Badarneh discloses “The cursor fields will move across the functions which are in the field. Fig. 5d shows active navigation selected (by arrows). Alternative navigation can be obtained if a cursor control switch 11' is mounted in the center of the switch 11 (stepless joystick-like system).” Ex. 1007, 15:13-15.

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**Rejection 2: Badarneh / Josenhans**

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Claims 1-6, 8, 11-15, 17, and 18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over International Publication Number: WO 02/091160 to Badarneh (“Badarneh” / Ex. 1007) and U.S. Publication No. 2002/0078013 to Josenhans et al. (“Josenhans” / Ex. 1008).

With regard to claim 1, which teaches “**two collections of items being individually indexed**” ... where “**an initial display including a plurality of parts of said item identifiers for selection, wherein said plurality of parts of said item identifiers include at least one part of an item identifier corresponding to a first collection of items and at least one part of an item identifier corresponding to a second collection of items...**”; Badarneh describes a GUI with character-mapped buttons (I, II, III, IV) corresponding to an up, down, left, and right configuration, which can be controlled by a multifunction key, such as a rotary switch. Ex. 1007,.14:30-15:2. Other configurations are also expressly disclosed. See Figs. 9-12.

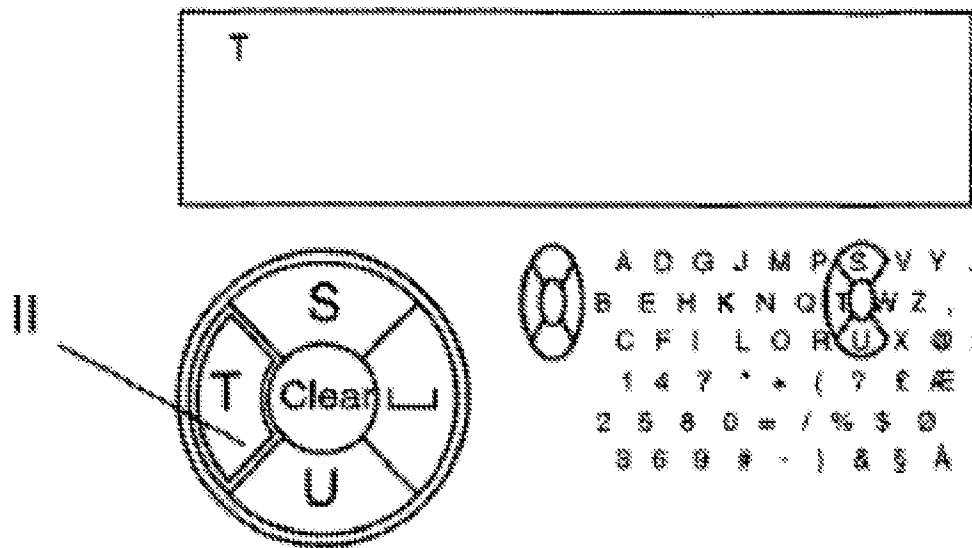


Fig. 9d

The up, down, left, right configuration includes within character-mapped buttons I, II, III, 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. For example, the characters shown in Figure 9d correspond to “likely words and/or letters according to priority of use,” (Id., 15:15-20.) which corresponds to, for example, “a database which contains options and data that should be available.” Id., 24:15-19. Further, Badarneh discloses an embodiment wherein these items are pulled from multiple sources such as “e-mail addresses” or “a list of words.” As such Badarneh discloses an initial display including a plurality of parts of said item identifiers (i.e. word) for selection, wherein said plurality of parts of said item identifiers include at least one part of an item identifier(i.e. a letter) corresponding to a first collection of items(i.e. e-mail addresses) and at least one part of an item identifier corresponding to a second collection of items(i.e. a list of words).

Josenhans teaches a system for searching database entries where partial text entry reveals options from the database including adjacent entries that the user may be intending to enter [0035] - [0037]. Josenhans further teaches “a search table is thus set up in which, for each connected database...” “He thus has the impression that he is searching for the desired information in a single database. This allows the user to search in various databases just as simply as when searching in a single database.” Ex. 1008 at [0010]. Accordingly, Josenhans discloses a system where various search terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases.

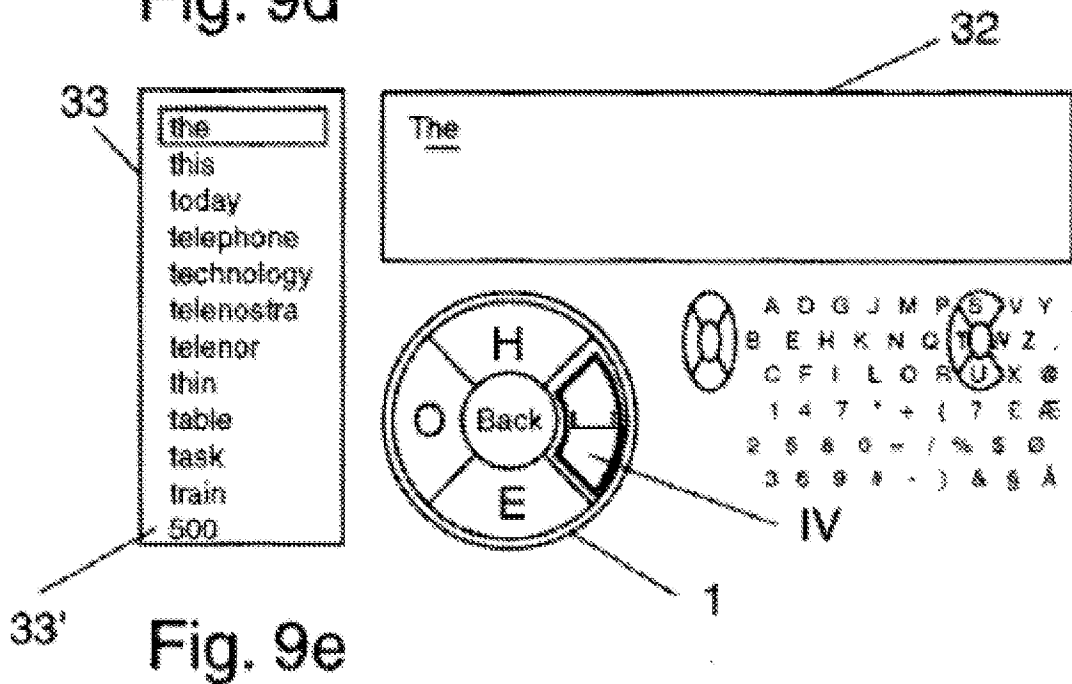
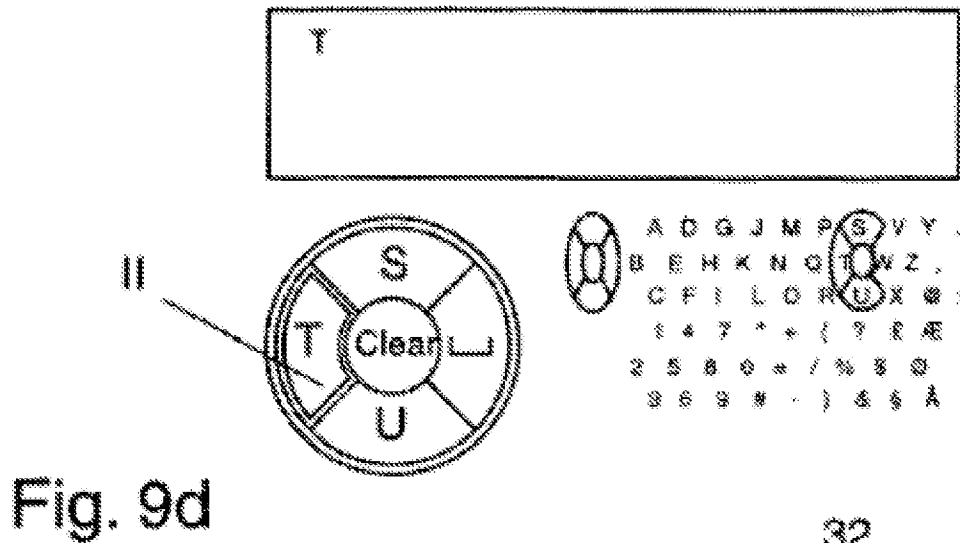
The combination further teaches enabling selection of one of said plurality of parts of said item identifiers; Badarneh discloses this limitation. Ex. 1003, ¶655. A

user may select a letter from the GUI by using the character mapped options of the up, down, left, and right configuration, such as a multifunction key. See Ex. 1007, 16:23-31.

The combination further teaches **identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to**; in that Badarneh teaches shifting between proposed word subsets based upon probability and partial entry. Here Badarneh discloses that upon character entry “that the list of words 33 will shift” according to the characters entered. Ex. 1007 at 17:24-18:10. As such Badarneh discloses “identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to.” Ex. 1003, ¶656.

The combination further teaches **generating, on said device, a display of a further plurality of parts of said item identifiers for selection in response to selection of said one of said plurality of parts of said item identifiers, wherein said further plurality of parts of item identifiers include at least one further part of said item identifiers corresponding to the one or more collections of items identified based on the selection of said one of said plurality of parts of said item identifiers**; Badarneh discloses this limitation. Ex. 1003, ¶657. The user’s previously selected one of the two parts of the item identifiers is displayed in text box 32 while a different set of item identifiers are displayed on character-mapped buttons 1, as shown in Figure 9 of

Badarneh. Ex. 1007, ¶[0017] ("The system now guesses the word "The", which is thus written out in full in the text field 32, see Fig. 9e. 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 have been used statistically").



*Id.*, Figs. 9d and 9e.

As shown above, once the part 'T' of the item identifier is selected, list of words 33' is updated to reflected database items containing a word beginning with the selected letter. Additional parts of item identifiers 'H' 'O' and 'E' are each displayed. Part 'H' corresponds to the set of entries in the database containing 'TH' as the first two letters of a word in the database item, while part 'E' corresponds to the set of entries in the database containing 'TE' as the first two letters of a word in the database item and part "O' refers to the first two letters of a word in the database item "TO." Ex. 1003, ¶658.

The combination further teaches **enabling selection of one of said further plurality of parts of said item identifiers in order to add to said selected one of said plurality of parts of said item identifiers to build a larger part or whole of said selected item identifier**; Badarneh discloses this limitation. Ex. 1003, ¶659. After the user selects a letter (e.g., the character 'T'), a new set of parts of item identifiers are automatically mapped to the up down left right configuration GUI 1 and displayed for another user selection. Ex. 1007, 17:29-34 ("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 have been used statistically. On the basis thereof, the system will choose letters which follow the previously entered letter. In this case, HOE are chosen as the letters which will provide letter number two in the first words that are chosen from the displayed list. These letters appear in the animation 31").

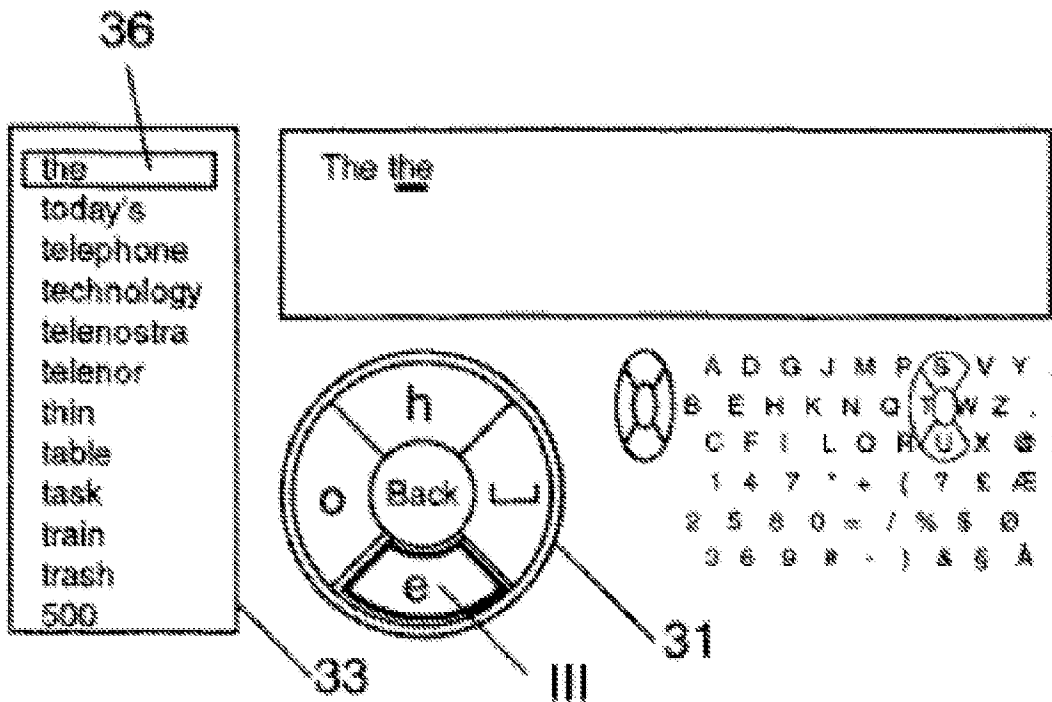


Fig. 9g

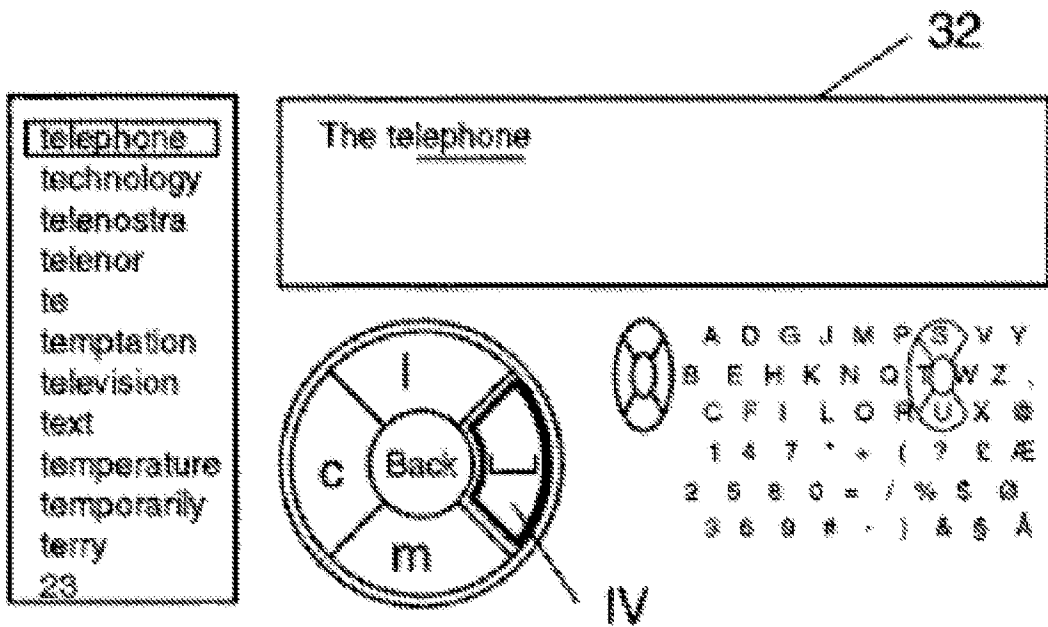


Fig. 9h

Id., Figs. 9g-h.

In the above figures, at least parts of item identifiers 'H' 'O' and 'E' (Figure 9g) are chosen for display based on the user's prior selection of the part 'T'. At least portions 'I' 'C' and 'M' (Figure 9h) are chosen for display based on the user's prior selection of the parts 'T' and 'E'. Ex. 1003, ¶660.

The combination further teaches **wherein generating said initial display comprises selecting said one or more parts of said item identifiers to be displayed based on a dynamic prioritization scheme that adjusts priorities of said item identifiers based on the number of times a particular item identifier from said list of item identifiers was previously selected**, in that the system disclosed by Badarneh "is intended to be programmed so that the words which the user employs most come first, that is to say that no matter what their length, words will come or be shown successively in the priority order they have according to previous use." Ex. 1007 at 5:21-25.

It would have been obvious to incorporate Josenhans' multiple database structures into Badarneh because, like Badarneh, Josenhans deals with "a method of searching for data in at least two databases." Specifically, one of ordinary skill in the art would look to references such as Josenhans to determine the best way to incorporate and setup the databases of Badarneh in order to streamline the user interface and permit the input of items across multiple data source or databases Ex. 1003, ¶674.

With regard to claim 2, which further teaches “[t]he method in according to claim 1, further comprising: enabling selection of additional parts of said item identifiers until said item identifier is completed, and enabling selection of the item identifier to select the item.” Badarneh discloses this limitation. Ex. 1003, ¶662. A user can continue selecting additional letters until the word from list 33 is completed. Ex. 1007, 17:29-31, Ex. 1003, 9662.

With regard to claim 3, which further teaches “[t]he method in accordance with claim 1, wherein said item identifiers includes a sequence of one or more text symbols and said plurality of parts of said item identifier is a subsequence of text symbols.” Badarneh discloses this limitation. Ex. 1003, ¶663. In addition to character item identifiers, Badarneh supports groups of letters where the user can type multiple characters in a word and the system will predict the next letter (e.g., based on the user’s prior typing).” See Ex. 1007, 18:1-10. Groups of letters and sets of characters, such as the examples given in Badarneh are text strings.

With regard to claim 4, which further teaches “[t]he method in according to claim 3, wherein said item identifiers are each a text string.” Badarneh discloses this limitation. Ex. 1003, ¶664. In addition to character item identifiers, Badarneh supports groups of letters where the user can type multiple characters in a word and the system will predict the next letter (e.g., based on the user’s prior typing).” See Ex. 1007, 18:1-

10. Groups of letters and sets of characters, such as the examples given in Badarneh are text strings.

With regard to claim 5, which further teaches “[t]method according to claim 4, wherein said text string is a word.” Badarneh discloses this limitation. Ex. 1003, ¶¶665. As described above in connection with claim 4, “The” and “Telephone” are both words. Ex. 1007, 18:1-10.

With regard to claim 6, which further teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of words from at least one language.” Badarneh discloses this limitation. Ex. 1003, ¶¶665-66. Badarneh discloses that “[t]he apparatus will preferably have a memory in which is stored a reference book/dictionary for the language that it is to be used.” Ex. 1007, 5:10-12.

With regard to claim 8, which further teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of contacts.” Badarneh discloses this limitation. Ex. 1003, ¶¶666. Badarneh discloses that “the data phrase is selected from . . . e- mail addresses.” Ex. 1007, claim 8.

With regard to claim 11, which further teaches “[t]he method according to claim 1, wherein said method is performed in a computing device and the computing device is a mobile telephone.” Badarneh discloses “For input or writing to take place the user must be in a write mode, i.e., for example, he must write SMS if the apparatus is, for

example, a mobile telephone, as assumed in this example.” Ex. 1007, 5:8-10. Badarneh also discloses “Fig. 5a shows an electronic apparatus (e.g., a mini-computer/PDA/mobile telephone) which is controlled by a multifunction key, in this case a rotary switch with four clicks (as shown before) and with an alternative centre click.” Ex. 1007, 14:30-33.

With regard to claim 12, which further teaches “[t]he method according to claim 1, wherein said method is performed in a computing device and the computing device is a PDA.” Badarneh discloses this limitation. Ex. 1003, ¶668. Badarneh explains “Fig. 5a shows an electronic apparatus (e.g., a mini-computer/PDA/mobile telephone) which is controlled by a multifunction key, in this case a rotary switch with four clicks (as shown before) and with an alternative centre click.” Ex. 1007, 14:30-33.

With regard to claim 13, which further teaches “[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of a joystick.” Badarneh discloses this limitation. Ex. 1003, ¶669. Specifically, Badarneh discloses “The cursor fields will move across the functions which are in the field. Fig. 5d shows active navigation selected (by arrows). Alternative navigation can be obtained if a cursor control switch 11' is mounted in the centre of the switch 11 (stepless joystick-like system).” Ex. 1007, 15:13-15.

With regard to claim 14, which further teaches “[t]he method according to claim 13, wherein said joystick is a five-way joystick.” Badarneh discloses this limitation. Ex.

1003, ¶670. Specifically, Badarneh discloses “The cursor fields will move across the functions which are in the field. Fig. 5d shows active navigation selected (by arrows). Alternative navigation can be obtained if a cursor control switch 11' is mounted in the centre of the switch 11 (stepless joystick-like system).” Ex. 1007, 15:13-15.

With regard to claim 15, which further teaches “[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of a touch screen.” Badarneh discloses this limitation. Ex. 1003, ¶671. Badarneh discloses that it “may be particularly advantageous to make use of a touchscreen keyboard.” Ex. 1007, 14:11-15.

With regard to claim 17, which further teaches “[t]he method according to claim 1, wherein the method is performed on a computing device and at least one collection of items is stored on said computing device.” Badarneh discloses this limitation. Ex. 1003, ¶672. Badarneh discloses “[t]he apparatus will preferably have a memory in which is stored a reference book/dictionary.” Ex. 1007, 5:10-12.

With regard to claim 18, which further teaches “[t]he method according to claim 1, wherein the method is performed on a computing device and at least one collection of items is stored on a remote device.” Badarneh discloses this limitation. Ex. 1003, ¶673. Badarneh further discloses “it is conceivable that information from a reference book/dictionary can be fetched from an external memory.” Ex. 1007, 5:12-13.

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**Rejection 3: Schroeder / Josenhans**

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Claims 1-6, 8, 11, 16, and 17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number: 5,797,098 to Schroeder et al. ("Schroeder" / Ex. 1009) and U.S. Publication No. 2002/0078013 to Josenhans et al. ("Josenhans" / Ex. 1008).

With regard to claim 1, which teaches "***two collections of items being individually indexed***" ... where "***an initial display including a plurality of parts of said item identifiers for selection, wherein said plurality of parts of said item identifiers include at least one part of an item identifier corresponding to a first collection of items and at least one part of an item identifier corresponding to a second collection of items...***"; Schroeder describes "a word completion method for speeding up input" (Ex. 1009, Abstract). The Schroder system performs the following functions:

- (1) A predictive keyboard input method that initially displays to a user the most commonly used characters for selected words in a particular language (e.g., English), associating those characters with programmable keys, and then accepting the 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.
- (2) A word completion method in which a telephone displays user-defined or predefined candidate words matching initial characters input by a user,

and assigns those candidate words to one or more available programmable keys.

If one of the candidate words is the word being entered by the user, then the user need only press the associated programmable key to have the entirety of the candidate word automatically entered into the display.

...

(7) A global search method for searching text strings in all of the different memory sections of a cellular telephone having an address book, a hierarchical menu structure, and stored data messages.

(see Ex. 1009, 1:38-53 and 2:21-25)

Schroeder further explains: "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." Id. 5:24-28.

Schroeder explains: "In order to ease the problem of entering text using a limited keyboard, such as that shown in FIG. 1a, the present invention provides for predictive keyboard input. Predictive keyboard input provides a method for initially displaying to a user the most commonly used characters for selected words in a particular language (e.g., English), associating those characters with programmable keys, and then accepting the 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." Ex. 1009, 4:31-40.

Schroeder explains that Fig. 1a shows 7 characters in display 11 that correspond to programmable keys 7 (including up down right and left arrows), and an 8th button that allows a user to request “more” letters if the right letters are not displayed. See Id., 4:41-61. Once a user selects a character, “that character is displayed on the display 11 as text entry” (Step 212 of fig. 2). Id., 5:7-9. Fig. 3 of Schroeder shows a scenario where “[w]hen 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.”

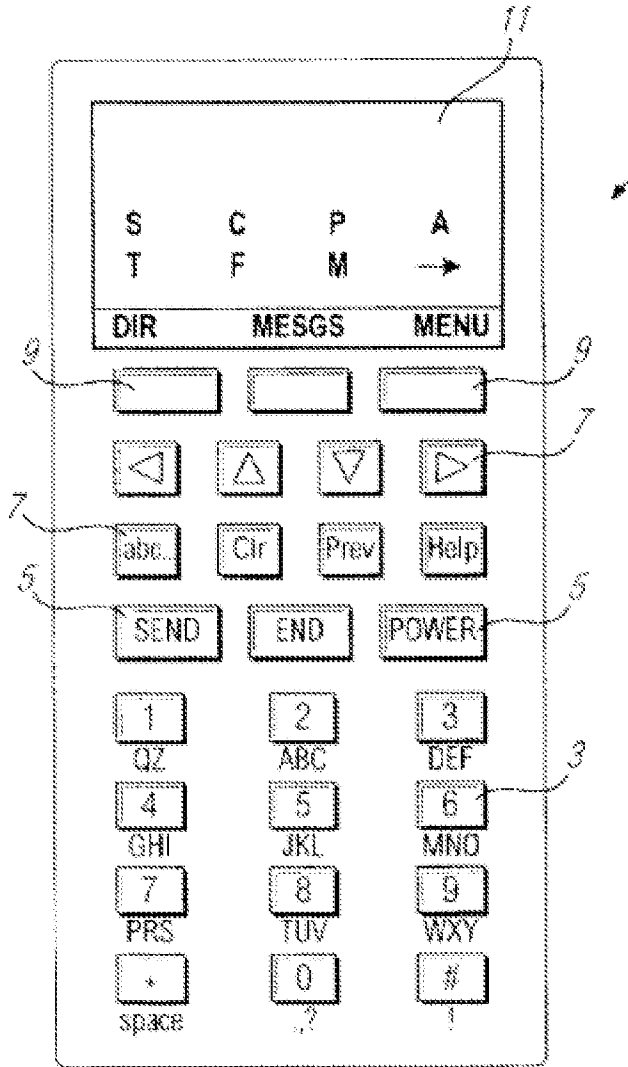


FIG. 1A

Each row of Fig. 3 therefore shows a different sets of item identifiers corresponding to a different set of items. Since, after each letter the user presses, the new character subset is based on the seven characters most likely to occur after the selected characters, there are different sets of identifiers and items. For example, once the user selects "P," only the letters (portions of item identifiers) associated with words

in the database that begin with "P" will be presented.

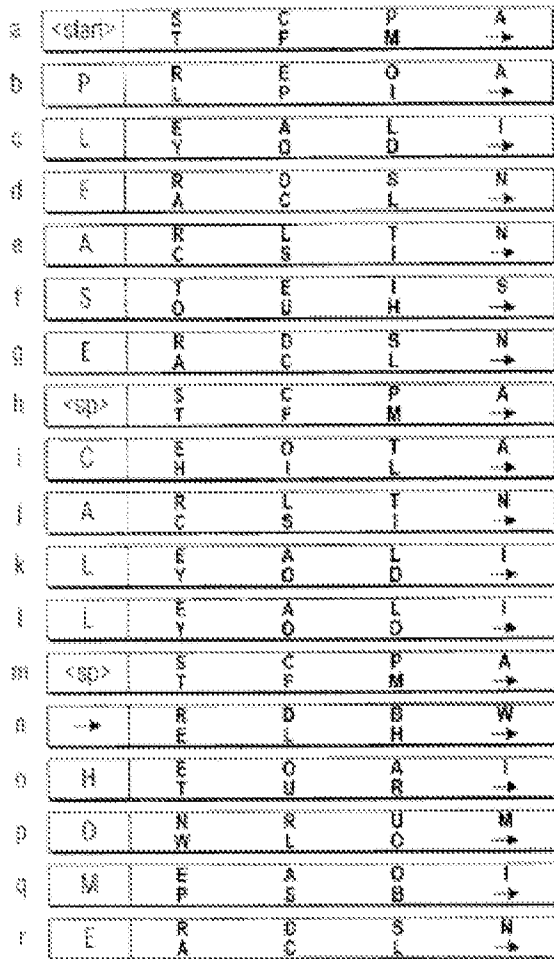


FIG. 3

Josenhans teaches a system for searching database entries where partial text entry reveals options from the database including adjacent entries that the user may be intending to enter [0035] - [0037]. Josenhans further teaches "a search table is thus set up in which, for each connected database..." "He thus has the impression that he is searching for the desired information in a single database. This allows the user to search in various databases just as simply as when searching in a single database." Ex.

1008 at [0010]. Accordingly, Josenhans discloses a system where various search terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases.

The combination further teaches enabling selection of one of said plurality of parts of said item identifiers; Schroeder discloses this limitation. Ex. 1003, ¶709. As explained above, a user can select one of the item identifiers using the programmable buttons shows as “7” in Figure 1:

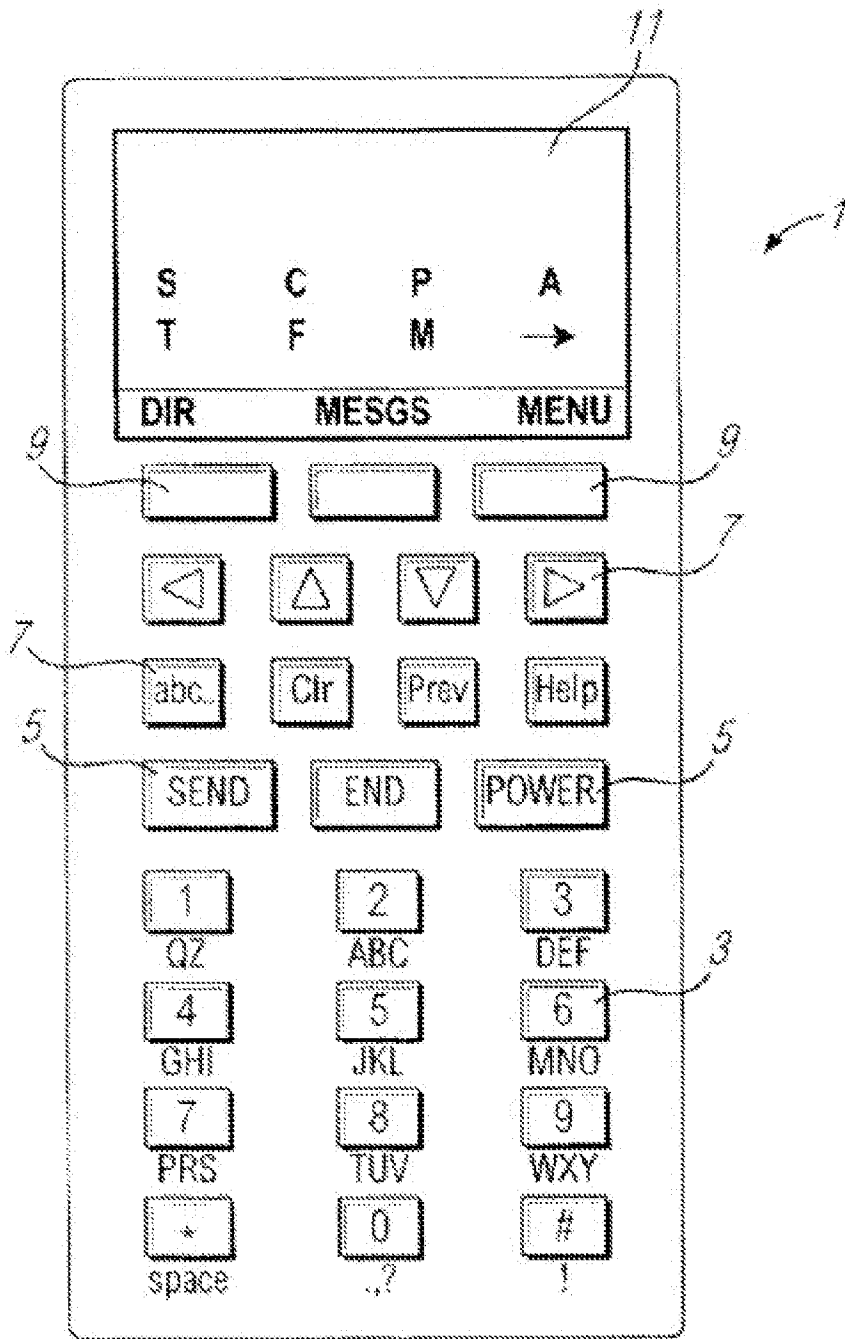


FIG. 1A

The combination further teaches **identifying, based at least in part on the part of the item identifier selected, which of the at least two collections of items the selected part of the item identifier corresponds to**; in that Schroeder discloses that Figure 3 shows the different sets of identifiers for sets of items based on the letters selected by the user. As explained in Schroeder, each time a user selects a letter, a new set of items is determined based on the previously selected letters. When the user selects the "P," the most used identifiers for words starting with "P" are shown. When the user selects the "L", the most used identifiers for the next letter of words starting with "PL" are shown. Ex. 1003, ¶711.

a	<start>	S T	C F	P M	A →
b	P	R L	E P	O I	A →
c	L	E Y	A O	L D	I →
d	F	R A	D C	S L	N →
e	A	R C	L S	T I	N →
f	S	T O	E U	I H	S →
g	F	R A	D C	S L	N →
h	<sp>	S T	C F	P M	A →
i	C	E H	O I	T L	A →
j	A	R C	L S	T I	N →
k	L	E Y	A O	L D	I →
l	L	E Y	A O	L D	I →
m	<sp>	S T	C F	P M	A →
n	→	R E	D L	B H	W →
o	H	E T	O U	A R	I →
p	O	N W	R L	U O	M →
q	M	E P	A S	O B	I →
r	F	R A	D C	S L	N →

FIG. 3

The combination further teaches generating, on said device, a display of a further plurality of parts of said item identifiers for selection in response to selection of said one of said plurality of parts of said item identifiers, wherein said further plurality of parts of item identifiers include at least one further part of said item identifiers corresponding to the one or more collections of items identified based on the selection of said one of said plurality of parts of said item identifiers;

Schroeder discloses this limitation. Ex. 1003, ¶712. After the user selects a letter (e.g., the character "P"), a new set of parts of item identifiers are mapped to the programmable buttons 7 and displayed for another user selection. Ex. 1009, 5:61-6:3 ("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.").

In Figure 3, above, the letters 'R', 'E', 'O', 'A', 'L', 'P', and 'I' were selected based on the user's prior selection of the part 'P.' Portions 'E', 'A', 'L', 'I', 'Y', 'O', and 'D' are chosen for display based on the user's prior selection of the parts 'P' and 'L.' Ex. 1003, ¶712.

The combination further teaches enabling selection of one of said further plurality of parts of said item identifiers in order to add to said selected one of said plurality of parts of said item identifiers to build a larger part or whole of said selected item identifier; Schroeder discloses this limitation. Ex. 1003, ¶713. Schroeder explains that as the characters are selected, they are displayed on the display. Ex. 1009, 5:58-6:3 ("The example phrase to be entered is "PLEASE CALL HOME". As can be seen, 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.) Ex. 1003, ¶713. This can also be seen in Figure 4:

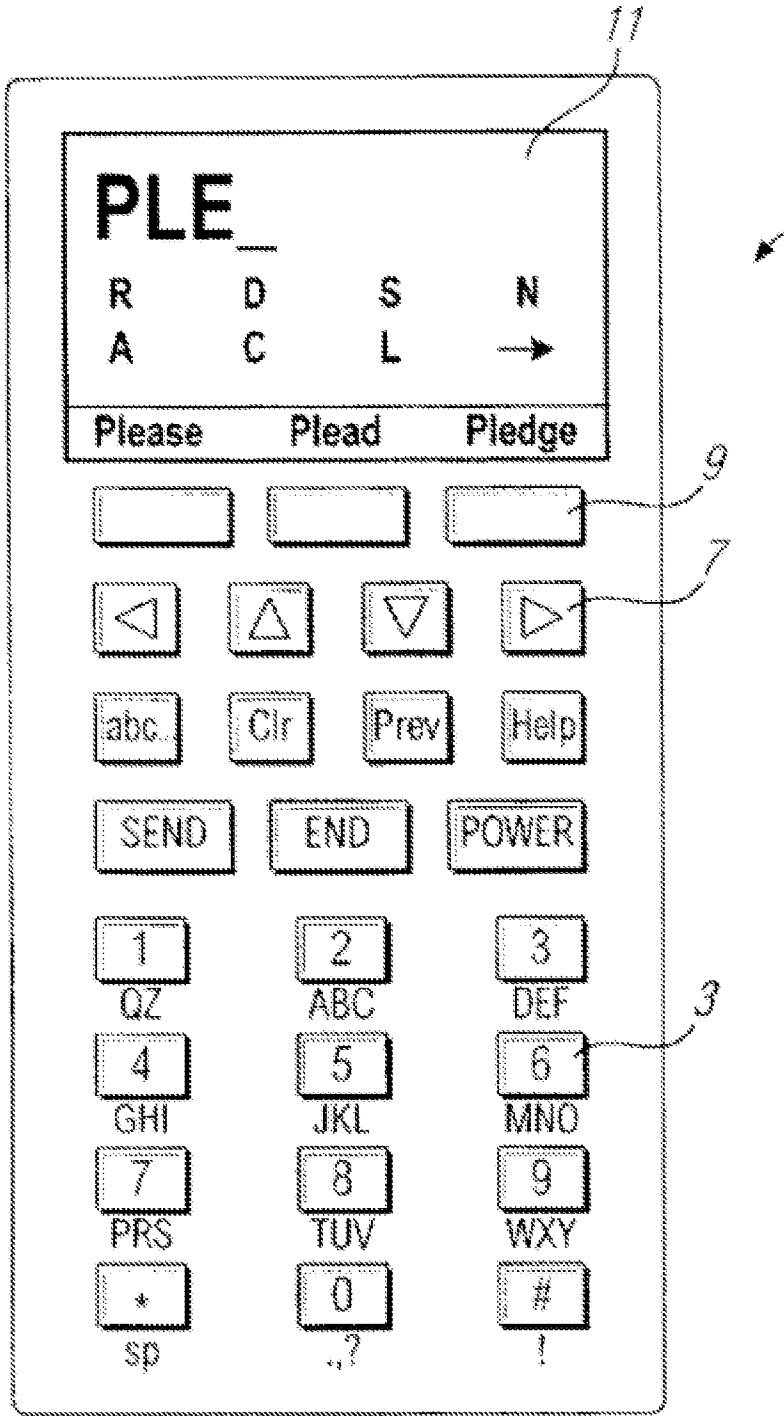


FIG. 4

The combination further teaches **wherein generating said initial display comprises selecting said one or more parts of said item identifiers to be displayed based on a dynamic prioritization scheme that adjusts priorities of said item identifiers based on the number of times a particular item identifier from said list of item identifiers was previously selected**, in that the system disclosed by Schroeder explains “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.” Ex. 1009, 5:15-2. Schroeder then further applies this criteria when a letter is selected: “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.” Id., 5:24-30. Schroeder explains that “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.” Id., 5:42-46.

It would have been obvious to incorporate Josenhans' unified search across multiple databases into Schroeder. Schroeder already describes a "global search" feature that is "conducted concurrently through the data structures comprising the address book, hierarchical menu structure, and stored data messages of the telephone 1." Schroeder, 10:60-11:64. Schroeder explains that its "global search" can run across different memory partitions and different logical structures within the telephone. *Id.*, 11:1-31. According to Schroeder, its "search algorithm may work at the physical storage level (such as is shown in FIG. 12), or at a logical storage level (e.g. by traversing singly or doubly linked lists, sequential data records, hierarchical trees, etc.)." *Id.*, 11:35-39. Schroeder also explains that "[t]his unified, global search scheme means that the user can search for information in a plurality of memory structures without having to know in advance in which memory structure the information is likely to be," making the search more efficient and transparent for the user. *Id.*, 12:2-5; Ex. 1003, 9724.

Similarly, Josenhans relates to a unified search across multiple data sources or databases. It would have been equally obvious to incorporate Josenhans' database structures into Schroeder because, like Schroeder, Josenhans deals with a method of searching for data in at least two databases. Specifically, one of ordinary skill in the art would look to references such as Josenhans to determine the best way to incorporate and setup the data sources of Schroeder. For example, Josenhans provides express motivation to provide a unified search across multiple databases (like the ones described in Schroeder) for simplicity (Josenhans, ¶[0010]), for efficiency, convenience, and reduced memory requirements (*id.*, ¶[0011]-[0013]), and for speed and reduced

data transfer requirements (id., ¶[0012], [0018]). A POSITA would have immediately recognized these well-known benefits and would have therefore had ample motivation to add a unified search across multiple database to any search application involving multiple data sources. Ex. 1003, ¶725.

With regard to claim 2, which further teaches “[t]he method according to claim 1, further comprising: enabling selection of additional parts of said item identifiers until said item identifier is completed, and enabling selection of the item identifier to select the item.” Schroeder discloses this limitation. Ex. 1003, ¶715. “The example phrase to be entered is “PLEASE CALL HOME”. As can be seen, 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.” Ex. 1009, 5:58-6:3.

With regard to claim 3, which further teaches “[t]method according to claim 1, wherein said item identifiers includes a sequence of one or more text symbols and said plurality of parts of said item identifier is a subsequence of text symbols.” In addition to character item identifiers, Schroeder supports groups of letters where the user can type

multiple characters in a word and the system will predict the next letter Ex. 1009, 5:34-41 (“In an alternative embodiment of the present invention, the table can take into account the preceding N characters, rather than just the preceding single character entered by the user. For example, a table could be constructed whereby, 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.”) Groups of letters and sets of characters, such as the examples given in Schroeder are text strings. Id., 5:15-20.

With regard to claim 4, which further teaches “[t]he method according to claim 3, wherein said item identifiers are each a text string.” Schroeder discloses this limitation. Ex. 1003, ¶717. As described above in connection with claim 2, “Please” and “Call” and “Home” are all text strings. Id.

With regard to claim 5, which further teaches “[t]he method according to claim 4, wherein said text string is a word.” Schroeder discloses this limitation. Ex. 1003, ¶718. As described above in connection with claim 5, “Please” and “Call” and “Home” are all words. Id.

With regard to claim 6, which further teaches “[t]he method according to claim 5, wherein at least one collection of items is a collection of words from at least one language.” Schroeder discloses this limitation. Ex. 1003, ¶719. As described above in

connection with claim 5, "Please" and "Call" and "Home" are all words in the English language. Id.

With regard to claim 8, which further teaches "[t]he method according to claim 5, wherein at least one collection of items is a collection of contacts." Schroeder discloses this limitation. Schroeder discloses "searching text strings in... an address book." Schroeder, 2:21-22.

With regard to claim 11, which further teaches "[t]he method according to claim 1, wherein said method is performed in a computing device and the computing device is a mobile telephone." Schroeder discloses this limitation. Ex. 1003, ¶721. The patent is titled "User interface for cellular telephone." Ex. 1009. A cellular telephone is a mobile phone.

With regard to claim 16, which further teaches "[t]he method according to claim 1, wherein selection of the one or more parts is enabled by way of programmable keys." Schroeder discloses this limitation. Schroeder explains that in one embodiment "[a] predictive keyboard input method . . . with programmable keys." Ex. 1009, 1:38- 42.

With regard to claim 17, which further teaches "[t]he method according to claim 1, wherein the method is performed on a computing device and at least one collection of items is stored on said computing device." Schroeder discloses this limitation. Ex. 1003,

¶723. Schroeder discloses “searching text strings in all of the different memory sections of a cellular telephone.” Ex. 1009, 2:21-22.

### ***Response to Arguments***

Applicant's arguments filed 7/14/2022 have been fully considered but they are not persuasive.

### **COMBINING PERLMAN AND DOSTIE**

Patent Owner argues that “***Perlman is not deficient without hierarchical trees and that one of skill in the art would not have sought to utilize hierarchical trees with the system described by Perlman. In contrast to creating a hierarchical tree, Perlman describes a system that does all of its operations on the original database items and does not “pre-process” or otherwise create a derivative list or tree to be used for facilitating selection from the list of text indices. See Samsung Electronics America, Inc. v. Kannuu Pty Ltd., IPR2020-00737, Ex. 2023 at ¶140 (Jan. 7, 2021 PTAB). Instead, Perlman relies on the original database list and computer “logic” for determining what selection options to present to the user. Id. There are advantages and disadvantages to different methods of processing the database items, and creating an interim, derivative list or tree is just one method. Id. Because Perlman is not “deficient,” there would not be a motivation to change the processing method.***”

In response, the Examiner first notes the reasons for the combination presented in the referenced Forlines Declaration:

*“It would have been obvious to incorporate Dostie’s tree structure into Perlman for the same reasons described below in connection with claim 5 and because Dostie itself recognizes that use of a candidate tree helps “to rapidly predict potential completion candidates” and “provides a mechanism for supporting enhanced data entry techniques such as character prediction.” Id., [0097]. The “enhanced data entry techniques” and “character prediction” are the same techniques described by Perlman, so a POSITA would have found it natural to incorporate Dostie’s candidate tree into the character selection system of Perlman.”*

With Forlines further noting in claim 5 that:

*“The tree structures shown in Figures 4, 14, 19, and 22 of Dostie are each “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.” Therefore, to the extent this limitation is not already disclosed by Perlman, Dostie clearly discloses such a classification system.”*

Further the Examiner notes that the basis for the argument presented by the Patent Owner is that “**Perlman describes a system that does all of its operations on the original database items and does not “pre-process” or otherwise create a derivative list or tree to be used for facilitating selection from the list of text indices**”, where this position is not supported by the Perlman reference. Perlman notes

that “Initially (i.e., before the user has selected a character), the alphanumeric characters mapped to the character-mapped buttons 101,110 correspond the most common first letters of words in the database list” (see paragraph 17). This alone shows a preprocessing, given a prediction is done prior to a user’s initial entry. Furthermore Perlman is shown to prioritize and offer characters corresponding to elements a user has previously selected (for playback) (see paragraph 19). Each of these citations show a preprocessing of data even prior to a user’s initial entry prioritizing certain characters and entries amongst lists of all possible entries.

Patent Owner argues that ***“The Office Action references the “well-known benefits of using hierarchical search trees to search a database.” OA at 18. But the fact that a POSITA perhaps could have made a change is not the same as proving that a POSITA would have made a change.”***

In response, the Examiner respectfully submits that using the trees of Dostie is less of an implementation of a change and more of a use of a known means for effecting the features described in Perlman. Perlman describes means of prioritizing entries event prior to first entry, while Dostie shows an art recognized means for prioritizing entries based upon prior activity.

“ [A] person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely that product [was] not of innovation but of ordinary skill and common sense. In that instance the fact

that a combination was obvious to try might show that it was obvious under § 103.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421, 82 USPQ2d 1385, 1397 (2007).

As previously noted, Perlman already displays a sorted list of database items matching the first letters of the user’s input. At the time of Perlman, this form of search was almost always performed using a hierarchical search tree. Because of the well-known benefits of using hierarchical search trees to search a database, these trees would have been “a trivial and routine addition” to Perlman that would have permitted simple and efficient searching based on a known prefix of database entries, like the searching discussed in Perlman. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (combination of familiar elements according to known methods is likely obvious when it does no more than yield predictable results). This is especially true since Perlman discloses “forward and backward/reverse searching capabilities” (Ex. 1005 at [0027]) that would “likely have used hierarchical search trees as these were in standard use for database searching at the time to move back and forward through the tree. Ex. 1003, ¶618.

Patent Owner argues that **“the problems presented by Perlman are quite unlike those presented in Dostie. See Samsung Electronics America, Inc. v. Kannuu Pty Ltd., (PR2020-00737, Ex. 2023 at (76 (Jan. 7, 2021 PTAB). Perhaps most notably, Dostie relates to the challenges of using “pen-based computing systems,” and thus is focused on “entering data into a personal computing**

***device with a single point device such as a pen or stylus.” Id. Samsung’s expert did not explain why one would look to art relating to “single point” devices when trying to solve problems relating to remote controllers using up, down, left, right directional keys.”***

In response, the Examiner respectfully submits that the problems and solution in the two references mirror each other:

**Perlman-**

Problem: entering alpha numeric characters via a generic button set being slow (see paragraphs 3-4)

Solution: dynamically providing characters based upon incidence and user preference (see paragraphs 17 and 19)

**Dostie-**

Problem: inefficient text entry via generic keyboards (see paragraph 3)

Solution: dynamically providing completion candidates for text entry based on preference and frequency (see paragraphs 90-98 and 103)

The fact that one is pen based while one is not is irrelevant to the determination of obviousness in this case. The two references are in a similar field where a similar problem is identified and they proceed to a similar solution.

In order for a reference to be proper for use in an obviousness rejection under 35 U.S.C. 103 , the reference must be analogous art to the claimed invention. *In re*

*Bigio*, 381 F.3d 1320, 1325, 72 USPQ2d 1209, 1212 (Fed. Cir. 2004). The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "Under the correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the patent [or application at issue] can provide a reason for combining the elements in the manner claimed." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 420, 82 USPQ2d 1385, 1397 (2007). This does not require that the reference be from the same field of endeavor as the claimed invention, in light of the Supreme Court's instruction that "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one." *Id.* at 417, 82 USPQ2d 1396. Rather, a reference is analogous art to the claimed invention if: (1) the reference is from the same field of endeavor as the claimed invention (even if it addresses a different problem); or (2) the reference is reasonably pertinent to the problem faced by the inventor (even if it is not in the same field of endeavor as the claimed invention). See *Bigio*, 381 F.3d at 1325, 72 USPQ2d at 1212.

### **COMBINING JOSEHANS WITH THE OTHER REFERENCES**

Patent Owner argues that ***"Applying the legal principles set forth above reveals that there would not have been a motivation to combine Josehans with the other cited references, as none of them have deficiencies that a POSITA***

***would have sought to fix by looking to Josenhans. Under the Apple v. VOIP-Pal.com case, the lack of a deficiency precludes the motivation to combine.”***

In response, the Examiner respectfully submits that Josenhans clearly teaches “a method for searching for data in at least two databases”, while appreciating the benefit of searching all databases at the same time rather than each individually (see paragraphs 1, 9, and 10). Perlman was shown to teach searching for data in multiple databases (supra), where Perlman’s system is further capable of utilizing a “built-in dictionary which is extended each time a user enters a full word”, thereby prioritizing entries of the databases (see paragraph 35). Josenhans merely further points out that these pooled database words can be accessed giving the user “the impression that he is searching for the desired information in a single database” (see paragraph 10). It is likely the Perlman operates invisible to the user, across multiple databases of items, when accessing the built-in dictionary to search in a prioritized manner previously entered text.

With regard to the argument, under the guise of Apple v. VoIP-PAL.com, that there is a lack of a deficiency in the primary reference, the cited case had a fact pattern very different from what is being argued here. Specifically, in Apple v. VoIP-PAL.com, Apple’s underlying premise to combine was noting that the primary references interface was less “intuitive” and less “user-friendly” than that of the secondary reference. The Examiner notes that given the teachings of Josenhans and Perlman the combination is less so claiming there is a deficiency in Perlman and more so showing a known means for implementing a disclosed element, where the combination would yield a predictable result. If the argument is that there is no benefit in the combination, then the Examiner

would again note the disclosed benefits of the separate databases / combined search features of Josenhans, namely allowing “the user to search in various databases just as simply as when in a single database.” (see paragraph 10).

There are many rationales to support a conclusion of obviousness, beyond that being argued by the Patent Owner. The Supreme Court in *KSR* noted that the analysis supporting a rejection under **35 U.S.C. 103** should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418, 82 USPQ2d at 1396. Exemplary rationales that may support a conclusion of obviousness include:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) “Obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

- MPEP 2141.III

Patent Owner argues that “***Josenhans addresses an entirely different problem than the cited references and the challenged patent. Josenhans has nothing to do with speeding up entry of a search query, and rather takes the search query as a given. For example, there is no predictive-text element that***

***speeds up entry of the next letter of the search query. Instead, Josenhans pertains to the problem of how to search across multiple devices, which is not an issue addressed by the cited references. In addition, in response to a search query, Josenhans returns results that includes items that are not the sought-after item, including items that come before and after the sought-after item. This type of system — searching for and displaying items that are somehow related to but not the actual sought-after item — has no application in the inventions claimed by the primary references or the challenged patent. The only reason anyone would seek to combine Josenhans with the primary references is if they were working backwards from the challenged patent and trying to fill in elements missing from the primary references, but that is precisely the kind of hindsight that Federal Circuit precedent prohibits.”***

In response, the Examiner respectfully submits that what is here is simple substitution of a known technique (Josenhans' use of viewing the search of multiple databases in a way that the user has "the impression that he is searching for the desired information in a single database" from paragraph 10) to improve a similar device (devices for searching for text in multiple databases).

With regard to problems and solution between the references, the Examiner submits that substantially mirror one another:

**Perlman-**

Problem: entering alpha numeric characters via a generic button set being slow (see paragraphs 3-4)

Solution: dynamically providing characters based upon incidence and user preference (see paragraphs 17 and 19)

**Dostie-**

Problem: inefficient text entry via generic keyboards (see paragraph 3)

Solution: dynamically providing completion candidates for text entry based on preference and frequency (see paragraphs 90-98 and 103)

**Josenhans-**

Problem: inefficient text based searching of a plurality of databases (see paragraphs 1, 2, and 9)

Solution: dynamically providing completion candidates form each of the databases for partial text input (see paragraphs 36-37)

**The '264 Patent-**

Problem: inefficient text based searching of a plurality of databases (see column 1, lines 25-59)

Solution: (see claims)

With regard to the contention that the Examiner only arrived at the combination through "hindsight reasoning", the Examiner notes that "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art

at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." In re McLaughlin, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). As the Examiner noted above, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to combine these alternate features of the references in analogous art.

Patent Owner argues that "Perlman does not disclose searching multiple databases simultaneously, and that the databases identified by the Examiner are not intended by Perlman as being searched simultaneously", and argues that "there is no other stated basis for combining these references".

In response, the Examiner respectfully submits that the fact that Josenhans teaches two databases is far from the only analogous feature between Josenhans and the other references in the combination. As previously noted, Josenhans deals with a system of text entry techniques that further utilizes with partial input prediction. With Josenhans' disclosed method a user desiring to find the entry "SAN FRANCISCO" could initiate the search from a telephone directory via entering the partial input string "SAN" to arrive at the desired selection (see paragraphs 36-37 and TABLE 1). Different databases could provide different results in this partial text input search method.

Further supporting this position, as was previously identified by reference, the Forlines declaration states in paragraphs 355-356 that:

355. Accordingly, Josenhans discloses a system where various search

terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases.

356. It would have been obvious to incorporate Josenhans' database organizational structure into Perlman for the same reasons because Josenhans itself deals with the issue the same type of text entry techniques and character prediction that is dealt with in Perlman. A POSITA would have recognized that the Josenhans system presents a way of organizing data into different databases without affecting the user interface for the user.

Patent Owner argues that "The embodiment of Badarneh described in the specification that discusses searching email addresses involves searching different fields in a single contact-database (Badarneh at 23) and the claim of Badarneh that discusses searching email addresses (claim 8) does not involve simultaneously searching across multiple databases."

In response, the Examiner respectfully submits that it is agreed that Badarneh is not explicit about the content being from two distinct databases, and that is precisely why it is being combined with Josenhans who explicitly teaches the two data sets stored in two separate databases yet accessed and searched as one.

As previously noted, Badarneh discloses items being pulled from multiple sources such as "e-mail addresses" or "a list of words." As such Badarneh discloses an initial display including a plurality of parts of said item identifiers (i.e. word) for selection,

wherein said plurality of parts of said item identifiers include at least one part of an item identifier (i.e. a letter) corresponding to a first collection of items (i.e. e-mail addresses) and at least one part of an item identifier corresponding to a second collection of items (i.e. a list of words).

Josenhans discloses a system where various search terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases [0035] - [0037]. Josenhans further teaches "a search table is thus set up in which, for each connected database..." "He thus has the impression that he is searching for the desired information in a single database. This allows the user to search in various databases just as simply as when searching in a single database." Ex. 1008 at [0010].

Patent Owner argues that "Schroeder does not disclose searching multiple databases simultaneously".

In response, the Examiner respectfully submits that again, similar to Badarneh, Schroeder teaches a "method for searching text strings in all of the different memory sections of a cellular telephone having an address book, a hierarchical menu structure, and stored data messages" (see Ex. 1009, 1:38-53 and 2:21-25), but is not explicit about the content being from two distinct databases, and that is again why it is being

combined with Josenhans who explicitly teaches the two data sets stored in two separate databases yet accessed and searched as one.

Josenhans discloses a system where various search terms are stored in separate databases, and further discloses that the system works so that a user can simply search all of the databases at once without knowing that they are actually using identifiers from separate databases [0035] - [0037]. Josenhans further teaches “a search table is thus set up in which, for each connected database...” “He thus has the impression that he is searching for the desired information in a single database. This allows the user to search in various databases just as simply as when searching in a single database.” Ex. 1008 at [0010].

### **Summary**

Claims 1-18 are hereby REJECTED.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.**

A shortened statutory period for response to this action is set to expire 2 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.

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 the patent throughout the course of this reexamination proceeding. See MPEP § § 2207, 2282, and 2286.

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  
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401 Dulany Street  
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Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

/DENNIS G BONSHOCK/  
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Primary Examiner, Art Unit 3992

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Supervisory Patent Examiner, Art Unit 3992

<b>Office Action in Ex Parte Reexamination</b>	<b>Control No.</b> 90/014,759	<b>Patent Under Reexamination</b> 9697264	
	<b>Examiner</b> DENNIS G BONSHOCK	<b>Art Unit</b> 3992	<b>AIA (FITF) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

- a.  Responsive to the communication(s) filed on 14 July 2022.  
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- b.  This action is made FINAL.
- c.  A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c)**. If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- 1.  Notice of References Cited by Examiner, PTO-892.
- 2.  Information Disclosure Statement, PTO/SB/08.
- 3.  Interview Summary, PTO-474.
- 4.  \_\_\_\_\_.

**Part II SUMMARY OF ACTION**

- 1a.  Claims 1-18 are subject to reexamination.
- 1b.  Claims \_\_\_\_\_ are not subject to reexamination.
- 2.  Claims \_\_\_\_\_ have been canceled in the present reexamination proceeding.
- 3.  Claims \_\_\_\_\_ are patentable and/or confirmed.
- 4.  Claims 1-18 are rejected.
- 5.  Claims \_\_\_\_\_ are objected to.
- 6.  The drawings, filed on \_\_\_\_\_ are acceptable.
- 7.  The proposed drawing correction, filed on \_\_\_\_\_ has been (7a)  approved (7b)  disapproved.
- 8.  Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
  - a)  All b)  Some\* c)  None of the certified copies have
    - 1  been received.
    - 2  not been received.
    - 3  been filed in Application No. \_\_\_\_\_.
    - 4  been filed in reexamination Control No. \_\_\_\_\_.
    - 5  been received by the International Bureau in PCT application No. \_\_\_\_\_.
- \* See the attached detailed Office action for a list of the certified copies not received.
- 9.  Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
- 10.  Other: \_\_\_\_\_

cc: Requester (if third party requester)