

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

CORE WIRELESS LICENSING S.A.R.L.,
Patent Owner.

Case IPR2015-01902
Patent 7,693,552 B2

Before JAMESON LEE, DAVID C. McKONE, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Apple, Inc. (“Petitioner”) filed a Petition (“Pet.”) for *inter partes* review of U.S. Patent No. 7,693,552 B2 (Ex. 1001, “the ’552 patent”). Paper 2. The Petition challenges the patentability of claims 1–3, 5, 9, 11–13, 15, 19, 21, and 22 of the ’552 patent. In an initial decision, we instituted

inter partes review of each of these challenged claims, except for claim 21. Paper 7 (“Dec. Inst.”).

Core Wireless Licensing S.A.R.L. (“Patent Owner”) filed a Patent Owner Response (Paper 15, “PO Resp.”), and Petitioner filed a Reply (Paper 18, “Reply”).¹ Oral argument was held on October 4, 2016. A transcript of the oral hearing is included in the record. Paper 27 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). We determine that Petitioner has shown by a preponderance of the evidence that claims 1–3, 5, 9, 11–13, 15, 19, and 22 of the ’552 patent are unpatentable.

B. Related Matters

The parties indicate that the ’552 patent was asserted in *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, No. 6:14-cv-00751 (E.D. Tex.). Paper 2, 5; Paper 5, 2. Petitioner indicates that the lawsuit “is being transferred to the Northern District of California.” Pet. 5.

C. The ’552 Patent

The ’552 patent is titled “Text Messaging Device.” Ex. 1001, at [54]. It discloses a hand-held wireless communication device for creating and sending text messages including ideograms. Ex. 1001, Abstr. The device includes an input interface for a user to make a phonetic input, and a processor for controlling a display device “to display thereon one or more

¹ Patent Owner filed Observations on Cross-Examination (Paper 20), and Petitioner filed a Response (Paper 24). Both papers have been considered. Patent Owner’s Observations E, F (first instance), and F (second instance) are not, as alleged by Petitioner, improper for being argumentative or for raising new arguments, and will not be expunged as requested by Petitioner.

ideogrammatic representations of the phonetic input according to a first language.” *Id.* Each of the displayed ideograms is “selectable by the user for incorporation into a text message according to further information.” *Id.*

Among the challenged claims, the independent claims are 1, 11, and 22:

1. An apparatus, comprising:

a processor configured to control a display device to display thereon one or more ideogrammatic representations of a phonetic input according to a language, and configured to provide further information in the language according to which the ideogrammatic representations are each selectable by a user for incorporation into a text message,

wherein the further information comprises information other than an indication of the phonetic input.

11. A method, comprising:

controlling a display device with a processor to display thereon one or more ideogrammatic representations of a phonetic input according to a language; and

providing further information in the language according to which the ideogrammatic representations are each selectable by a user for incorporation into a text message,

wherein the further information comprises information other than an indication of the phonetic input.

22. An apparatus, comprising:

a processor configured to

enable a user to make a phonetic input;

display one or more ideogrammatic representations of the phonetic input according to a first language;

provide further information in the first language, wherein the further information comprises information other than an indication of the phonetic input; and

enable the user to select according to the further information
and for incorporation into a text message one of the one or
more ideogrammatic representations of the phonetic input.

Id. at 4:19–28, 4:64–5:6, 6:22–34.

D. Evidence Relied Upon

Reference		Date	Exhibit
Tanaka	Jap. Pub. App. No. H9–297758	Nov. 18, 1997	Ex. 1004
Wu	U.S. Patent No. 7,395,203 B2	July 1, 2008 (filed July 30, 2003)	Ex. 1005
Nishikawa	Jap. Pub. App. No. H6–75946	Mar. 18, 1994	Ex. 1006
iMac Fan	iMac Fan: iMac Introduction and User Guide 2003 Edition (Excerpts)	Mar. 1, 2003	Ex. 1007A
Fushimoto	U.S. Patent No. 5,136,504	Aug. 4, 1992	Ex. 1009

iMac Fan, Tanaka, and Nishikawa are Japanese language documents. Citations to iMac Fan will be to a certified English translation thereof — Exhibit 1007C. Citations to Tanaka refer to the English translation thereof, which is contained within Exhibit 1004 after the original Japanese document. Citations to Nishikawa refer to the English translation thereof, which is contained within Exhibit 1006 after the original Japanese document. Petitioner also relies on the declarations of Laura Tomokiyo, Ph.D. (Ex. 1003 (“First Declaration”), Ex. 1034 (“Reply Declaration”)) and the Declaration of Ingrid Hsieh-Yee, Ph.D. (Ex. 1025). Patent Owner has

not submitted the testimony of any declarant to rebut the testimony of Dr. Tomokiyo or the testimony of Dr. Hsieh-Yee.

E. The Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Reference(s)	Basis	Claims Challenged
iMac Fan	§ 103(a)	1–3, 5, 9, 11–13, 15, 19, and 22
Tanaka	§ 103(a)	1–3, 5, 9, 11–13, 15, 19, and 22
Wu and Nishikawa	§ 103(a)	1–3, 9, 11–13, 19, and 22
Wu, Nishikawa, and Fushimoto	§ 103(a)	5 and 15

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142–46 (2016).

Consistent with that standard, we assign claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention, in the context of the entire patent disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

There are, however, two exceptions: “1) when a patentee sets out a definition and acts as his own lexicographer,” and “2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362,

1365 (Fed. Cir. 2012). It is inappropriate to limit a claim to a preferred embodiment without a clear intent in the specification to redefine a claim term or a clear disavowal of claim scope. *See id.* Limitations that are not a part of the claim should not be imported into the claim. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). It is improper to add into a claim an extraneous limitation, i.e., one that is added wholly apart from any need for the addition. *See, e.g., Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 950 (Fed. Cir. 1993); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988).

Only terms which are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Key to this decision are these claim terms and phrases: (1) “text message”; and (2) “further information.”

“text message”

The '552 patent does not define the term “text message.” Thus, the term “text message” takes on its ordinary and customary meaning as would be understood by one with ordinary skill in the art in light of the specification. In its Petition, Petitioner does not propose a construction for “text message.” Patent Owner proposes that “text message” means *a message sent by means of a hand-held wireless communication device*. PO

Resp. 19. Patent Owner also proposes that for something to be regarded as a “text message,” both transmission and reception of the subject text is required. *Id.* For reasons discussed below, we determine that contrary to Patent Owner’s contentions, a “text message” is not limited to a message sent by means of a hand-held wireless communication device, and also that reception of the text message is not required for the text message to be a text message, if the text message has been sent from a device.

Patent Owner argues that it is clear from the Specification that the inventor was concerned with a hand-held wireless communication device for creating and sending text messages, citing the Abstract of the ’552 patent. PO Resp. 19–20. Patent Owner also notes that the Specification states: “The invention relates to hand-held wireless communication devices with which text messages can be created and sent.” *Id.* at 20 (quoting Ex. 1001, 1:14–16). The Abstract of the ’552 patent does refer to “a hand-held wireless communication device for creating and sending text messages.” Ex. 1001, Abstr. But that does not mean the claims are limited to sending text messages via hand-held wireless communication devices. It is the claims that define the scope of a covered invention.

Although the preferred embodiment makes use of a hand-held wireless communication device, the preferred embodiment should not be read into the claims, because language limiting the claimed invention to wireless hand-held devices is entirely absent from the claims and the Specification does not use exclusive or restrictive language for the disclosed embodiment. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (“Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the

patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’” (citation omitted)).

We agree with Petitioner (Reply 5) that nothing in the Specification and prosecution history indicates that “text message” is limited to that sent by a hand-held wireless communication device. Indeed, all of the devices illustrated in the Figures of the ’552 patent are said to be “by way of example” only. Ex. 1001, 2:14–22. More specifically, a hand-held wireless communication device is described as “according to an embodiment of the invention,” and “[b]y way of example.” *Id.* at 2:27–28. Furthermore, as noted by Petitioner, the Specification states: “certain embodiments of the invention may include any feature or combination of features disclosed herein either implicitly or explicitly or any generalization thereof, without limitation to the scope of any definitions set out above,” and “it will be evident to a person skilled in the art that various modifications may be made within the scope of the invention.” Reply 5–6 (emphasis omitted) (quoting Ex. 1001, 4:11–17). Such disclosures do not limit or restrict the scope of invention to wireless hand-held communication devices.

Additionally, as has been noted by Petitioner (Reply 8), during prosecution of U.S. Patent No. 7,502,632, with respect to which the ’552 patent is a continuation sharing the same disclosure, the Applicants amended pending independent apparatus claims to remove therefrom recitations of “handheld wireless communication device.” Ex. 1032, 73–80. That is evidence that even Patent Owner appreciated a difference between having and not having the language “handheld wireless communication device” in the claims.

It is not in dispute that text messages also can be sent or received by devices that are not wireless hand-held communication devices. The fact that the Specification states the invention “relates to” hand-held wireless communication devices does not mean the claims are limited to hand-held wireless communication devices. The term “relates to” does not mean “limited to” and does not constitute a clear disclaimer of scope that covers devices that are not wireless hand-held communication devices. It is noted also that the wireless hand-held device limitation need not be read into the claims to make sense of the claims. The “relates to” statement is consistent with construing “text message” such that it may be sent by devices other than hand-held wireless communication devices. Insofar as the claims are concerned, the requirement of a wireless hand-held device is an extraneous limitation that should not be included.

We credit the testimony of Dr. Tomokiyo that “a person of ordinary skill in the art would have understood that ‘text message’ was **not** limited to a message sent by means of a hand-held wireless communication device, and could instead be sent by other types of devices such as notebook and desktop computers.” Ex. 1034 ¶ 6. We also credit the testimony of Dr. Tomokiyo that the plain and ordinary meaning of “text message” under the broadest reasonable construction standard consistent with the specification “included messages (including emails) formed on a desktop computer, and was not limited to SMS messages or messages sent from a hand-held wireless device.” *Id.*

As a part of the evidence in support of its construction, Patent Owner cites two dictionary definitions for “text message”: (1) “a message sent by

means of a mobile phone”;² and (2) “[a] short message, often using abbreviations, typed and sent by means of a mobile phone.”³ PO Resp. 21. Dictionary definitions generally are imprecise and often may set forth what is common or popular as opposed to the boundaries of a term’s exclusive scope. These dictionary definitions cited by Patent Owner do not outweigh the testimony of Dr. Tomokiyo, discussed above, with regard to how one with ordinary skill in the art would understand the term “text message” in the context of the ’552 patent. Furthermore, we credit more the following testimony of Dr. Tomokiyo, which refers to technical dictionaries that do not, in connection with a “text message,” refer to use of a wireless hand-held communication device:

For example, technical dictionaries of the type that experts in my field would reasonably rely upon define “text message” as including, *e.g.*, **“a message consisting of text, or which incorporates simple graphics”** (Ex. 1029 at 3) and **“a message that contains strings of characters (text) to define meaning of the message”** (Ex. 1030 at 3). Technical dictionaries also support the understanding of a person of ordinary skill in the art that a “text message” can be an e-mail or embodied within an e-mail. *See* Ex. 3001 (IEEE dictionary) at 1, Ex. 3002 (Microsoft dictionary) at 1. These pertinent technical dictionaries do not limit “text message” to a message sent wirelessly or to a message sent from a hand-held device.

Ex. 1034 ¶ 7. In that connection, Patent Owner does not contend that only a hand-held wireless communication device is operable to send e-mail.

² COLLINS ENGLISH DICTIONARY 1668 (6th ed. 2003) (Ex. 2001).

³ CHAMBERS DICTIONARY OF SCIENCE AND TECHNOLOGY 1200 (2007) (Ex. 2002).

Patent Owner identifies (PO Resp. 21) U.S. Patent No. 7,899,442 B2 (granted to Petitioner),⁴ which states:

[A] user can send [sic] a text message using, for example, Short Message Service-Point to Point (SMS-PP) protocol as defined in GSM recommendation 03.40 where messages are sent via a store-and forward mechanism to a Short Message Service Center (SMSC), which will attempt to send the message to the recipient and possibly retry if the user is not reachable at a given moment.

Ex. 2003, 2:51–57. The above-quoted text, however, indicates only that a text message can be sent by SMS-PP protocol, and does not convey that a text message must be sent by SMS-PP protocol (which is referred to only as an “example”). In any event, that patent is neither related to the ’552 patent nor incorporated by reference into the ’552 patent.

For the foregoing reasons, we reject Patent Owner’s proposed construction of “text message” as a message sent by means of a hand-held wireless communication device.⁵ Instead, we construe “text message” broadly but reasonably to cover *a message including text, which is transmitted or received by a device.*

“further information”

Petitioner states in its Petition that the construction of “further information” offered by Patent Owner in the related district court action

⁴ The identified patent was assigned to Apple, Inc. Ex. 2003, at [73].

⁵ We also reject Patent Owner’s proposal (PO Resp. 19) that for something to be regarded as a “text message,” both transmission and reception of the subject text is required. The only evidence Patent Owner cites in support of that contention is a dictionary definition for “message” as: “In communications, a unit of information transmitted electronically from one device to another.” Ex. 2009. The definition states nothing about both transmission and reception and thus does not support Patent Owner’s contention.

“may be properly adopted here.” Pet. 10. The expression is vague in that we are uncertain of Petitioner’s position and the substantive reasoning therefor. Patent Owner argues that “further information” should be construed as “Information Sufficient to Differentiate a Respective Ideogrammatic Representation From Any Other Presented for the Same Phonetic Input.” PO Resp. 23. According to Patent Owner, because all of the examples provided in the Specification for the claimed “further information” have a certain characteristic, the term “further information” should be construed to have that attribute. *Id.* at 23–24. That is an incorrect approach to claim construction. Unless actually required by the claim, such as by explicit recitation, special definition in the disclosure, or clear disclaimer in the prosecution history, limitations in exemplary embodiments should not be read into the claim. *See Hill–Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) (“While we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims.”). We reject Patent Owner’s proposed construction. The term “further information” has the plain meaning of *additional information* and requires no further construction.

B. Level of Ordinary Skill in the Art

Citing the First Declaration of Dr. Tomokiyo, Petitioner asserts:

The applicable person of ordinary skill in the art would have a minimum of a bachelor’s degree in computer science, computer engineering, electrical engineering, computational linguistics, or a comparable field, approximately two years of relevant industry experience in speech and natural language processing or machine learning and artificial intelligence, and familiarity with East Asian languages. Additional graduate

education could substitute for professional experience, or significant experience in the relevant field described above could substitute for formal education. A POSITA is presumed to have knowledge of all relevant prior art, and thus would have been familiar with each of the references cited herein, as well as the background knowledge in the art discussed in § 1, supra, and the full range of teachings they contain. Ex. 1003 ¶¶ 3–11.

Pet. 11.

Patent Owner does not take an explicit position on the level of ordinary skill in the art and does not dispute Petitioner’s articulation as reproduced above. The record supports Petitioner’s assertion, and we adopt Petitioner’s articulation of the level of ordinary skill in the art.

C. Claims 1–3, 5, 9, 11–13, 15,
19, and 22 as Obvious over iMac Fan

We have reviewed the arguments and evidence presented by Petitioner, and determine that, notwithstanding the arguments of Patent Owner, Petitioner has established by a preponderance of the evidence that claims 1–3, 5, 9, 11–13, 15, 19, and 22 are unpatentable as obvious over iMac Fan. Because Patent Owner argues that Petitioner has not shown iMac Fan constitutes a printed publication as of the effective filing date of the ’552 patent, we discuss first whether Petitioner has made a showing in that regard by a preponderance of the evidence, i.e., that iMac Fan is a printed publication as of June 25, 2004, the effective filing date of the ’552 patent.⁶

⁶ The ’552 patent issued from Application 12/314,382, filed December 9, 2008, which is a continuation of Application 10/875,607, filed June 25, 2004. Ex. 1001, at [21], [22], [63].

1. iMac Fan as Printed Publication

To constitute a “printed publication” under 35 U.S.C. § 102, a prior art reference “must have been sufficiently accessible to the public interested in the art.” *In re Cronym*, 890 F.2d 1158, 1160 (Fed. Cir. 1989). As Patent Owner correctly notes, “public accessibility” has been called the touchstone in determining whether a reference constitutes a printed publication. PO Resp. 24–25 (citing *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986)).

Petitioner submitted a Declaration of Naoki Takiguchi, Director of the publishing division of the publisher of iMac Fan, who testifies on the basis of his personal knowledge and the business records of the publisher that iMac Fan “was published by Mainichi Communications Inc. (now Mynavi Corporation) on March 1, 2003,” and that iMac Fan “became publicly available at the date of its publication in March, 2003, and was distributed for sale to the public in March, 2003.” Ex. 1007, 149.

Petitioner also submitted library catalogue information for iMac Fan from (1) Japan National Diet Library (Ex. 1023), and (2) Kanagawa Institute of Technology Library (Ex. 1024), and the testimony of Dr. Hsieh-Yee⁷ (Ex. 1025) in connection with the information on the library catalogues. Dr. Hsieh-Yee testifies that in her opinion, iMac fan “was accessible to the public (e.g., searchable in the library catalog[ue] and available in the library) no later than March to May 2003 at the National Diet Library.” Ex. 1025

¶ 13. Dr. Hsieh-Yee also testifies that iMac Fan “was accessible to the

⁷ Dr. Hsieh-Yee is a Professor in the Department of Library and Information Science at The Catholic University of America and holds a Ph.D. in Library and Information Studies. Ex. 1025 ¶ 2.

public no later than August 2003 at the Kanagawa Institute of Technology.”
Id. ¶ 16.

The catalogue entry for iMac Fan at the National Diet Library of Japan includes a title field. Ex. 1023. So does the catalogue entry for iMac Fan at the Kanagawa Institute of Technology Library. Ex. 1024. Patent Owner does not dispute that the two catalogue entries are searchable by title. The title of iMac Fan is “iMac Fan: iMac Introduction and User Guide 2003 Edition” (Ex. 1007C), and it conveys, without more, the subject matter of the book to those interested in the subject.

The catalogue entries for iMac Fan at both libraries further include classification fields. Exs. 1023, 1024. For the entry at the National Diet Library of Japan, the classification is “NDLC Y94,” the meaning of which has not been explained by Petitioner. Ex. 1023. But for the entry at the Kanagawa Institute of Technology Library, the classification is “Information engineering.” Ex. 1024. For the entry at the Kanagawa Institute of Technology Library, there also is a subject headings field and the indicated subject for iMac Fan is “personal computer.” Exs. 1024, 1033 ¶ 7. Thus, in addition to iMac Fan being searchable at the libraries by its substantive title, the copy at the Kanagawa Institute of Technology Library is searchable by “personal computer” subject matter and by “Information engineering” classification.

Patent Owner contends that “[t]here is no evidence that prior to the time of filing of the ’552 patent the Kanagawa Institute of Technology Library copy of iMac Fan was searchable by subject.” PO Resp. 25 (citation omitted). We understand Patent Owner’s argument to be that even if iMac Fan at Kanagawa Institute of Technology Library is indexed by subject

matter now, that does not mean it was so indexed prior to the effective filing date of the '552 patent. Nevertheless, we find that in the absence of evidence of a changed circumstance, which is the case here, the evidence produced by Petitioner establishes by a preponderance of the evidence that the way iMac Fan is indexed on Exhibits 1023 and 1024 reflects the way iMac Fan was indexed when it was first received and processed at the libraries, respectively. Thus, the argument is unavailing for Patent Owner. In any event, Patent Owner does not dispute that iMac Fan was searchable by title at the two libraries prior to Patent Owner's effective filing date. Because of the substantive nature of the title for iMac Fan, searchability by title alone is sufficient to qualify iMac Fan as a printed publication no later than May 31, 2003, based on the copy at the National Diet Library of Japan, and no later than August 31, 2003, based on the copy at the Kanagawa Institute of Technology Library. Both of those dates are prior to the effective filing date of the '552 patent, and the date of availability based on the National Diet Library of Japan is more than one year prior to the effective filing date of the '552 patent.

For the foregoing reasons, we determine that Petitioner has shown by a preponderance of the evidence that iMac Fan constitutes prior art, as a printed publication, against the '552 patent. We find that iMac Fan is a printed publication no later than May 31, 2003, based on the copy of iMac Fan located at the National Diet Library of Japan. Even without considering the copy located at the National Diet Library of Japan, we find that iMac Fan still is a printed publication no later than August 31, 2003, based on the copy of iMac Fan located at the Kanagawa Institute of Technology Library.

2. General Content of iMac Fan

iMac Fan discloses a personal computer including a Japanese language input interface. Ex. 1007C, 122, 125. It also includes a “CPU” (central processing unit) and an “LCD monitor” (display device). *Id.* at 122. A user enters Japanese phonetic input, either Romaji or Kana, and the system performs a conversion of the phonetic input to text including kanji ideograms. *Id.* at 125, 127. The conversion process includes presenting on the display multiple possible kanji conversion candidates for selection by the user. *Id.* at 128. With regard to each phonetic input, iMac Fan states: “Up to 8 [kanji ideogram] candidates can be displayed in the window at one time. If there are more candidates than 8, you can view the other candidates by scrolling down.” *Id.*

iMac Fan discloses that for some kanji candidates, those displayed with an “i” mark, additional information is available, such as the associated meaning and examples of usage. *Id.* In that regard, iMac Fan describes: “Use this information when making your selection. Once you find the conversion candidate you want, select it and press the return key.” *Id.* That description is followed immediately by:

The kanji conversion candidate window automatically disappears after you select a conversion candidate, and you return to candidate selection mode in which the candidate is underlined. To confirm the candidate, press the return key again to finish conversion.

3. Independent Claims 1, 11, and 22

Claim 1 is drawn to an apparatus and claim 11 is drawn to a method. The steps recited in method claim 11 correspond to the respective functions the processor of claim 1 is configured to perform. Claim 22 is an apparatus

claim and is drawn essentially to the same subject matter as claim 1. Claim 1 is representative. Our discussion of claim 1 applies to claims 11 and 22.

Claim 1 recites, in pertinent part: “[a]n apparatus, comprising: a processor configured to control a display device to display thereon one or more ideogrammatic representations of a phonetic input according to a language.” Based on our discussion of iMac Fan above, and on Petitioner’s presentations on pages 11–15 of the Petition, Petitioner has shown that the limitation at issue is disclosed by iMac Fan. Specifically, we find that the kanji characters of iMac Fan are the ideogrammatic representations and the Romaji or Kana inputs of iMac Fan are the phonetic inputs in Japanese.

Claim 1 further recites, with respect to the processor: “and configured to provide further information in the language according to which the ideogrammatic representations are each selectable by a user for incorporation into a text message.” Based on our discussion of iMac Fan above, and on Petitioner’s presentations on pages 15–19 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 48–54 (Ex. 1003), Petitioner has shown that the limitation at issue is disclosed by iMac Fan. Specifically, iMac Fan describes an e-mail program on the computer that sends a “text message” by stating: “In addition to sending a text message, you can also attach files to an e-mail.” Ex. 1007C, 139. Also, iMac Fan discloses that the message body of an e-mail can include Japanese text. *Id.* at 136, 139. Furthermore, iMac Fan discloses the entering of text messages in a communication program called “iChat.” *Id.* at 145, 146. An illustration of the text messages being communicated in iChat shows the inclusion of multiple ideogrammatic representations in kanji. *Id.* at 145; Ex. 1003 ¶ 45.

It is not expressly stated in iMac Fan whether the disclosed Japanese language input interface is used in conjunction with iMac Fan's (1) email and (2) iChat programs. However, Petitioner has shown that in light of the disclosure of iMac Fan, it would have been obvious to one with ordinary skill in the art to adopt iMac Fan's Japanese language input interface for use in connection with the (1) email and (2) iChat applications of iMac Fan.

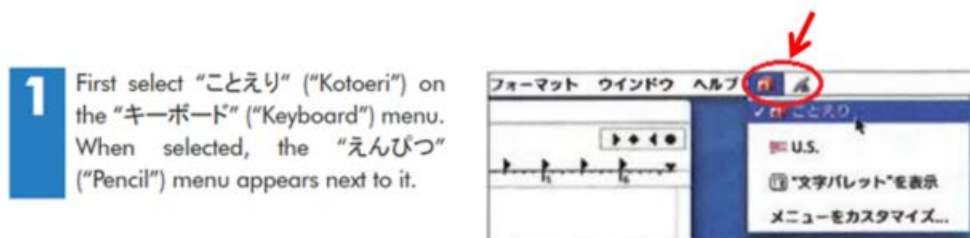
Dr. Tomokiyo in Paragraph 54 of her First Declaration testifies that one with ordinary skill in the art would have understood that kanji is selectable by a user for incorporation into an email "text message" or an iChat "text message." Ex. 1003 ¶ 54. Dr. Tomokiyo cites to page 129 of iMac Fan, which includes two troubleshooting portions titled: (1) "I made a mistake during kana-kanji conversion," and (2) "I converted to kanji using the wrong input!" *Id.* ¶¶ 49–51, 54. Dr. Tomokiyo identifies a specific kanji character from within a sample email message illustrated in iMac Fan. *Id.* ¶ 52. Dr. Tomokiyo also identifies kanji characters within sample messages within iChat as illustrated in iMac Fan. *Id.* ¶ 53. Dr. Tomokiyo further testifies:

To the extent it is argued that iMac Fan does not disclose this element, it would have been, at a minimum, obvious based on iMac Fan's disclosure and the knowledge of a POSITA to advantageously implement the system of iMac Fan so that the ideogrammatic representations (*e.g.*, "kanji" characters) are each selectable by a user for incorporation into a text message given the natural and well-known use of computers for such communication purposes. *See, e.g.*, Ex. 1020 (Longe) 3:66–12, 7:65–8:5 (disclosing a text input method implemented in, *e.g.*, computer program or mobile device that incorporates Chinese text into "email or SMS message"); Ex. 1021 (Dell) 1:18–24, 5:44–6:3 (disclosing a text input method implemented on, *e.g.*, "personal computers" and "handheld devices such as cellular

phones, personal digital assistants” that incorporates “ideographic characters, such as those used in the Chinese, Korean, or Japanese language” into “text messages.”).

Id. ¶ 54. Additionally, Dr. Tomokiyo testifies:

In addition, iMac Fan discloses that when the “Kotoeri” [Japanese input] program is selected, an icon for Japanese text input depicting an Apple logo on top of a red circle symbolizing Japan () is shown on the menu bar, along with a “Pencil” menu next to it ():⁸



Ex. 1007 16, 52, 90, 125. And these *same* Kotoeri and Pencil icons are shown in iMac’s e-mail program, confirming that the same Japanese text input program is used when composing an e-mail in Japanese:⁹



Ex. 1007 30, 66, 104, 139; *see also id.* 27, 63, 101, 136.

⁸ The illustration shows a screen shot after a user selects the “Kotoeri” Japanese input program.

⁹ The illustration shows a screen shot within iMac’s email program.

Ex. 1034 ¶ 11. We credit and find persuasive the above-noted testimony of Dr. Tomokiyo.

Patent Owner argues:

Indeed, *iMac Fan* warns users against using hardware-dependent characters, such as kanji characters, in email messages as they may not be decodable by a recipient's computer. *Ex. 1007* at 100. Petitioner seemingly ignores this warning when arguing that it would have been obvious to a person of ordinary skill in the art to use the Japanese language input program in connection with the email and chat applications disclosed in *iMac Fan*. *See, e.g.*, Pet. at 16, 18–19; *Ex. 1003* at ¶ 54 (failing to account for the warning). In light of such a warning a person of ordinary skill in the art would not adopt the Japanese language input program as argued by Petitioner.

PO Resp. 26–27. For reasons discussed below, the argument is without merit.

We have reviewed the cited portions of *iMac Fan* and do not find support for Patent Owner's contention that kanji characters, as a class, are regarded in *iMac Fan* as hardware-dependent characters. The examples given in *iMac Fan* as hardware-dependent characters are:

①, ②, ③, (株), and (有)

Ex. 1007C, 100. Patent Owner also does not support its contention with the testimony of any technical witness. We are persuaded by the testimony of Petitioner's witness, Mr. Christopher-Kent Johnson, who is a professional translator, that what Patent Owner evidently identifies as hardware-dependent characters in *iMac Fan* are not kanji characters. Paragraphs 4–6 of Mr. Johnson's Declaration are reproduced below:

4. The hardware-dependent character “(株)” on page 133 of *iMac Fan* (*Ex. 1007* at 100, 135) is a Japanese symbol denoting certain types of Japanese public companies, similar to “Co.”,

“Ltd.” or “Inc.” in English. The parenthesis is part of the symbol. This symbol is different from “株”, which is a Japanese kanji character that would generally be translated to “stock” in English. It does not have parenthesis.

5. The hardware-dependent character “有” on page 133 of iMac Fan (Ex. 1007 at 100, 135) is a Japanese symbol denoting certain types of Japanese private companies. The parenthesis is part of the symbol. This symbol is different from “有”, which is a Japanese kanji character that would generally be translated to “yes” or “have” in English. It does not have parenthesis.

6. The Japanese symbols “株” and “有” have parenthesis denoting that they are not regular characters, and are not interchangeable with and would not be used as kanji characters “株” and “有”, respectively, in Japanese. This is similar to English symbols “©” (copyright) and “®” (registered) that have circles denoting that they are not regular letters, and are not interchangeable with and would not be used as letters “C” and “R”, respectively, in English.

Ex. 1033 ¶¶ 4–6. Dr. Tomokiyo provides essentially the same testimony.

Ex. 1034 ¶ 13. We credit the above-produced testimony of Mr. Johnson, and similar testimony of Dr. Tomokiyo, and determine that it simply is not the case that iMac Fan’s disclosure regards kanji characters as hardware-dependent characters that may not be decodable by a recipient’s computer. Thus, iMac Fan does not teach away from or warn against using kanji characters within an email text message or an iChat text message.

In Item F (second instance) of Patent Owner’s Observations on Cross-Examination, Patent Owner asserts that Dr. Tomokiyo admits that kanji characters “may be” hardware-dependent characters. Paper 20, 5–6. The observation is misplaced and does not support Patent Owner’s argument that iMac Fan regards kanji characters, as a class, as hardware-dependent characters. Although theoretically the character codes for kanji ideograms

may be assigned differently by different manufacturers, it is not Dr. Tomokiyo's testimony that that has occurred sufficiently frequently to classify kanji characters, as a whole, as hardware-dependent characters. Indeed, when asked if she could estimate how many kanji characters, in 2004, would have been "hardware-depending characters," she answered: "In 2004, I wouldn't know for sure. I could estimate on the order of 50 to 100 out of the character space of over 3,000 for Japanese." Ex. 2012, 28:9–14. The issue is not whether there is a common code among all manufacturers for every single kanji character out of several thousand kanji characters, without exception, but whether iMac Fan's warning of not using hardware-dependent characters for email communication includes kanji characters as a class. For reasons discussed above, the warning does not apply to kanji characters as a class. Note in particular that Dr. Tomokiyo specifically identified kanji characters in sample email and iChat messages of iMac Fan. Ex. 1003 ¶¶ 52–53. And even assuming that only 2900 out of 3000 kanji characters have codes that are common among manufacturers, that is no reason not to use those 2900 kanji characters, approximately 97% of the lot, for communication.

Patent Owner argues that in iMac Fan the ideogrammatic representations are not selectable by a user for incorporation into a text message, because (1) a "text message" has to be "a message sent by means of a hand-held wireless communication device," and (2) the email and iChat programs of iMac Fan are associated with desktop personal computers. PO Resp. 27. We have, however, construed "text message" above and determined that it is not restricted to "a message sent by means of a hand-

held wireless communication device.”¹⁰ Accordingly, Patent Owner’s argument is without merit.

Claim 1 additionally recites: “wherein the further information comprises information other than an indication of the phonetic input.” Based on our discussion of iMac Fan above and on Petitioner’s presentations on page 19 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 39 and 55 (Ex. 1003), Petitioner has shown that this limitation is disclosed by iMac Fan. Specifically, such additional information in iMac Fan includes the meaning and examples of usage of the kanji ideograms. Ex. 1007C, 128. Such information is different from any indication of the phonetic input.

For the foregoing reasons, we determine that Petitioner has shown by a preponderance of the evidence that each of claims 1, 11, and 22 is unpatentable as obvious over iMac Fan.

4. Dependent Claims 2, 3, 5, 9, 12, 13, 15, and 19

Claims 2, 3, 5, and 9 depend, directly or indirectly, from claim 1. Claims 12, 13, 15, and 19 depend, directly or indirectly, from claim 11. For these claims, Patent Owner presents no argument not already addressed above in the context of claim 1. We have reviewed the presentation of Petitioner on pages 11–23 of the Petition. For the reasons discussed therein we find that iMac Fan discloses the limitations added by each of these dependent claims relative to the claim or claims on which it depends. We determine that Petitioner has shown by a preponderance of the evidence that

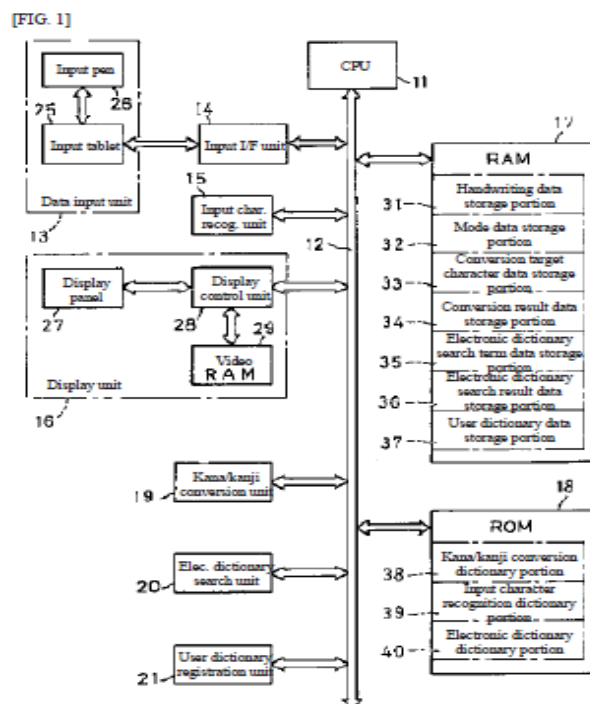
¹⁰ Note also that, as pointed out by Petitioner (Reply 16), iMac Fan expressly uses the term “text message” in connection with email and iChat messages.

each of claims 2, 3, 5, 9, 12, 13, 15, and 19 is unpatentable as obvious over iMac Fan.

D. Claims 1–3, 5, 9, 11–13, 15,
19, and 22 as Obvious over Tanaka

We have reviewed the arguments and evidence presented by Petitioner and determine that, notwithstanding the arguments of Patent Owner, Petitioner has established by a preponderance of the evidence that each of claims 1–3, 5, 9, 11–13, 15, 19, and 22 is unpatentable as obvious over Tanaka.

Tanaka discloses a Japanese language processing device that converts kana phonetic inputs into kanji ideograms to form a sentence including both kana and kanji. Ex. 1004 ¶¶ 1, 3, 5, 7. The processing device includes a central processing unit, a display unit, and a data input unit. *Id.* ¶ 16. The data input unit includes an input tablet and an input pen. *Id.* ¶ 17. An English translated version of Tanaka's Figure 1 is reproduced below:



Ex. 1004, 34. Figure 1 illustrates the main portion of an example of a language data processing device according to Tanaka. *Id.* ¶ 16. Data input unit 13 includes input tablet 25 and input pen 26. *Id.* ¶ 17.

Tanaka describes that there potentially are multiple homonyms in kanji ideograms that all correspond to the same kana phonetic input. *Id.* ¶ 5. Multiple such homonym corresponding kanji candidates are presented on a display device for selection by the user who entered the kana input. *Id.* ¶¶ 5, 7. Tanaka describes that, at times, the user may have difficulty determining which of the plurality of displayed kanji ideograms has the meaning intended by the user. *Id.* ¶ 7. To solve that problem, Tanaka implements an electronic dictionary function within the kana/kanji conversion process. *Id.* ¶ 10. Tanaka discloses displaying the kanji candidates together with their corresponding explanatory text as represented by associated dictionary data, to assist in user selection of the intended kanji ideogram. *Id.* ¶ 12.

1. Independent Claims, 1, 11, and 22

As in the case discussed above regarding obviousness of claims 1, 11, and 22 over iMac Fan, here in the context of Tanaka we also regard claim 1 as representative. Our discussion of claim 1 applies to the corresponding limitations of claims 11 and 22.

Claim 1 recites, in pertinent part: “[a]n apparatus, comprising: a processor configured to control a display device to display thereon one or more ideogrammatic representations of a phonetic input according to a language.” Based on our discussion of Tanaka above, and on Petitioner’s presentations on pages 26–29 of the Petition, Petitioner has shown that the limitation at issue is disclosed by Tanaka. Specifically, we find that Tanaka’s kanji characters are the ideogrammatic representations and

Tanaka's kana inputs are phonetic inputs in Japanese. We find also that Tanaka's central processing unit 11 is the claimed processor and Tanaka's display unit 16 is controlled by the processor to display kanji characters.

Claim 1 further recites, with respect to the processor: "and configured to provide further information in the language according to which the ideogrammatic representations are each selectable by a user for incorporation into a text message." Based on our discussion of Tanaka, and on Petitioner's presentations on pages 26–27 and 29–32 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 107–111 (Ex. 1003), Petitioner has shown that this limitation is met. The "further information" is the corresponding Japanese explanatory text for a selectable kanji character, obtained as a result of an electronic dictionary operation that is built into the kana/kanji conversion process.

However, with regard to the "incorporation into a text message" aspect of this limitation, for which Petitioner presented two alternative lines of reasoning, the showing is adequate with respect to only one but not the other, as explained below.

Petitioner asserts that Tanaka's teaching of forming, on a language data processing device including a tablet, "sentence data" incorporating kanji text discloses incorporating kanji characters into a text message. Pet. 30 n.7. For support, Petitioner cites to Declaration Paragraphs 107–110 of Dr. Tomokiyo (Ex. 1003). That position is not adequately explained either in the Petition or in the cited testimony of Dr. Tomokiyo. For instance, it is not explained how the formed sentence constitutes a message, given that neither a recipient of the sentence nor a transmission of the sentence is indicated. Petitioner identifies no disclosure in Tanaka of such a

recipient or transmission. We are unpersuaded that Tanaka's formed sentence data constitutes a text message. The message component is not sufficiently addressed by Petitioner.

We have determined that a "text message" does not have to be a message sent by means of a hand-held wireless communication device. However, it is *a message including text, which is transmitted or received by a device*. That means it still must be associated with a device that includes the functionality of sending or receiving the message. Therefore, a user's entering text into a computer, outside of the environment of any communication application, program, or functionality, does not form a text message. Note that Petitioner has submitted no testimony of any expert to the effect that one with ordinary skill in the art would have regarded any text inputted by a user into a computer as a text message. Construing "text message" that broadly would be unreasonable. Petitioner has not shown that the sentence data formed in Tanaka constitutes a text message.

In the alternative, however, Petitioner asserts that it would have been obvious to use Tanaka's input sentence in a text message. Pet. 30 n.7. Notwithstanding the arguments of Patent Owner, we are persuaded by Petitioner's contention. Citing to Declaration Paragraph 111 of Dr. Tomokiyo (Ex. 1003), Petitioner points to the natural and well-known use of data processing systems including tablets for communication purposes, and to the fact that Tanaka's device includes a tablet for entering text, to support its contention that it would have been obvious to one with ordinary skill in the art to incorporate Tanaka's formed sentence into a text message. *Id.*

Dr. Tomokiyo testifies that it would have been obvious to one with ordinary skill to use Tanaka's inputted sentence in a text message because it was natural and well-known to use for communication purposes data processing systems that include a tablet for inputting information. Ex. 1003 ¶ 111. Dr. Tomokiyo identifies (1) in Exhibit 1021 ("Dell") a hand-held device that incorporates ideographic characters into a text message, (2) in Exhibit 1012 ("Thomason") a device including a writing tablet for adding Chinese characters to a text message, (3) in Exhibit 1013 ("Smith") a cellular phone or web tablet used for entering a text message in languages such as Japanese and Chinese, and (4) in Exhibit 1014 ("Wang") a handwriting recognition data processing apparatus for entering ideogrammatic characters into messaging applications. *Id.* We credit the testimony of Dr. Tomokiyo and are persuaded that it would have been obvious to one with ordinary skill in the art to use Tanaka's language processor in combination with a communication feature so that the inputted sentence, entered via a tablet, would form a text message.

Patent Owner argues that Tanaka itself does not provide any teaching regarding the formation of text messages. PO Resp. 33. That is true and we have discussed that fact above. Petitioner's rationale of obviousness with respect to the message aspect of the "text message" limitation is not made on the basis of express teachings from Tanaka. Rather, as discussed above, it is based on the common use of communication devices, known to one with ordinary skill in the art, which include a writing tablet for inputting text.

Patent Owner argues that the fact that other devices include a communication feature does not mean it would have been obvious to one with ordinary skill in the art to include a communication feature in Tanaka's

language processing system, and that Petitioner failed to explain why one with ordinary skill in the art would have incorporated a communication feature in Tanaka's language data processing device. PO Resp. 32–33. But for reasons discussed above, Petitioner has explained adequately why one with ordinary skill in the art would have incorporated a communication feature in Tanaka's language data processing device such that the inputted text would constitute a text message. For an obviousness analysis, there need be reasoning provided with rational underpinnings. *See In re Kahn*, 441 F.3d 977, 987–88 (Fed. Cir. 2006). Petitioner has provided such reasoning with rational underpinnings.

Tanaka does not express a particular purpose for entering text, through a tablet, into a data processing apparatus to form a sentence. We reject Patent Owner's characterization (PO Resp. 32) that Tanaka simply provides a dictionary "for looking up kanji representations for kana input." That alleged goal is not consistent with Tanaka's focus on forming a sentence. Also, as is explained by Petitioner (Reply 8–9), Tanaka was designed to avoid appearing like an electronic dictionary because the kanji located from a conventional dictionary operation "cannot be applied directly to the kana/kanji conversion process" in the task of forming a sentence. Petitioner's explanation is supported by Paragraphs 8–9 of Tanaka (Ex. 1004) as well as by Paragraphs 16–19 of Dr. Tomokiyo's Reply Declaration (Ex. 1034). Tanaka's overall subject pertains to helping a user to enter an input sentence into an electronic device. Ex. 1004 ¶¶ 1, 5, 7.

Petitioner explained that it was well-known to one with ordinary skill in the art that data processing systems including a user input tablet, for entering information, are used for communication purposes. Pet. 30 n.7

(citing the testimony of Dr. Tomokiyo (Ex. 1003 ¶ 111)). In particular, as noted above, Dr. Tomokiyo identifies Exhibit 1012, which discloses a device that includes a writing tablet for adding Chinese characters to a text message, Exhibit 1013, which discloses use of an input tablet for entering an alphanumeric text message, Exhibit 1014, which discloses the use of a stylus to enter Chinese characters and Japanese kanji symbols into a messaging application, and Exhibit 1021, which discloses the use of a “stylus” input to incorporate ideographic characters into a text message. Ex. 1003 ¶ 111. As discussed above, we credit the testimony of Dr. Tomokiyo. On the reasoning presented by Petitioner, and particularly because the text entered by a user in Tanaka already is in the form of a sentence, we are persuaded that it would have been obvious to one with ordinary skill in the art to use a communication feature together with Tanaka’s language processing device so that the inputted sentence of Tanaka would form a text message for sending.

Claim 1 additionally recites: “wherein the further information comprises information other than an indication of the phonetic input.” Based on our discussion of Tanaka above, and on Petitioner’s presentations on pages 32–33 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 100 and 112–15 (Ex. 1003), Petitioner has shown that this limitation is disclosed by Tanaka. Specifically, such additional information in Tanaka include explanatory text corresponding to the multiple kanji candidates, as represented by associated dictionary data. Ex. 1004 ¶ 12. Such information is different from any indication of the phonetic input.

2. Dependent Claims 2, 9, 12, and 19

Claims 2 and 9 depend, directly or indirectly, from claim 1. Claims 12 and 19 depend, directly or indirectly, from claim 11. For these claims, Patent Owner presents no argument not already addressed above in the context of claim 1. We have reviewed the presentation of Petitioner on pages 33–39 of the Petition. For the reasons discussed therein we find that, with respect to claims 2, 9, 12, and 19, Tanaka discloses the limitations added by each of these dependent claims relative to the claim or claims on which it depends. We determine that Petitioner has shown by a preponderance of the evidence that the subject matter of each of claims 2, 9, 12, and 19, as a whole, is unpatentable as obvious over Tanaka.

3. Dependent Claims 3 and 13

Claim 3 depends from claim 1, and further recites: “wherein the processor is further configured to first display the one or more ideogrammatic representations without the further information, and wherein one or more of the displayed ideogrammatic representations are selectable via an input interface to access the further information relating thereto.” Claim 13 depends from claim 11, and further recites: “displaying the one or more ideogrammatic representations without the further information,” and “wherein one or more of the displayed ideogrammatic representations are selectable via an input interface to access the further information relating thereto.” The added limitations of claims 3 and 13 are essentially the same, but for the difference that one is a process step and the other is a functionality of the processor. They will be addressed collectively.

Petitioner makes a detailed accounting of the limitation added by claims 3 and 13, on pages 34–36 and 39 of the Petition, relying on the

testimony of Dr. Tomokiyo. We are persuaded, notwithstanding the contrary argument of Patent Owner, which is addressed below, that Tanaka discloses the limitation added by claims 3 and 13.

For instance, both Petitioner (Pet. 34–36) and Dr. Tomokiyo (Ex. 1003 ¶¶ 121, 122) cite to Tanaka’s Paragraphs 39 and 44, which state:

[0039] Furthermore, the central processing unit 11, *when the peaked portion 26a of the input pen 26 is made to contact the phrase added and displayed* with the underline in the text incorporating both kanji and kana characters obtained by the kana/kanji conversion being performed displayed on the display panel 27, *this phrase added and displayed with the underline is put into a state of being highlighted to be made a new focus phrase*, and the phrase made to be the focus phrase up to this point is un-highlighted and put into a state where the underline is added and displayed. Moreover, the central processing unit 11 changes the focus phrase number data included in the conversion result data stored in the conversion result data storage portion 34 in the RAM 17 to one representing a number of *the new focus phrase*.

[0044] Then, in the kana/kanji conversion process mode state, as illustrated in FIG. 6, in a situation where the peaked portion 26a of the input pen 26 is made to contact the “electronic dictionary” data input region 52, dictionary operation instruction data instructing starting the electronic dictionary operation is input, and under control by the central processing unit 11, which operates at this time according to the handwriting data formed in the input interface unit 14 and sent to the data bus 12, the electronic dictionary operation is performed. At such a time, the central processing unit 11 performs a control operation such as will be described below with reference to an operation flowchart illustrated in FIG. 7 and makes the electronic dictionary operation proceed effectively.

Ex. 1004 ¶¶ 39, 44 (emphasis added). Paragraph 46 of Tanaka, also cited by Petitioner and Dr. Tomokiyo, states that the entire focus phrase is made a search term for the dictionary operation. *Id.* ¶ 46. The above-quoted

evidence establishes that in Tanaka's system, the one or more ideogrammatic representations being displayed is selectable by a user via an interface to access further information relating thereto by using them as a dictionary search term. We credit Dr. Tomokiyo's testimony (Ex. 1003 ¶¶ 118, 120, 140, 141) that the limitations added by claims 3 and 13 are disclosed by Tanaka.

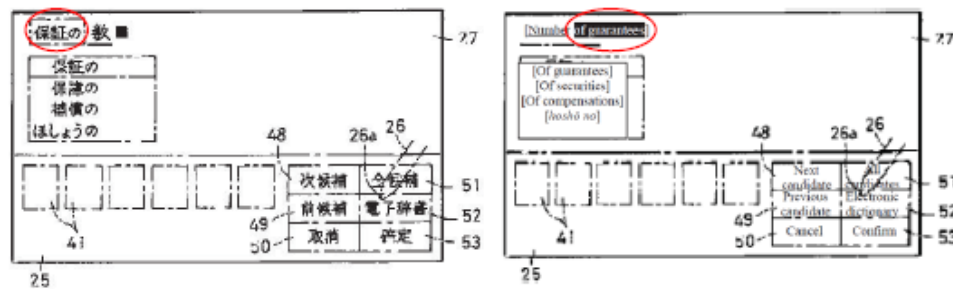
Patent Owner makes two arguments with regard to claims 3 and 13. First, Patent Owner asserts that in Tanaka the display of dictionary definitions is the result of the user's selecting the "electronic dictionary" region 52 on the display, rather than selecting an ideogrammatic representation. PO Resp. 34; *see also* Tr. 35:15–36:9. The argument is misplaced and unpersuasive. As explained above in connection with Tanaka's Paragraphs 39, 44, and 46, prior to selecting the dictionary function, the user created the current focus phrase that will be used as the search term when the dictionary function is activated, and the user created the focus phrase by making a selection from among the various displayed candidates of possible ideogrammatic representations. The need for the user to trigger separately an "electronic dictionary" region after having first selected the focus phrase to be searched does not negate the fact that the user has selected the phrase to be searched for further information. Nothing in claim 3 or claim 13 requires the absence of a dictionary region or button usable for triggering the search for further information, after the search term has been selected by the user. In other words, selection of the search term and activation of the search need not be unified into a single action.

In Items A and C of its Observations on Cross-Examination, Patent Owner asserts that Dr. Tomokiyo admits that in Tanaka the displayed kanji

characters are not selectable via an input interface to access any further information. Paper 20, 1–4. We have read the cited portions of Dr. Tomokiyo’s cross-examination testimony and find no such admission or acknowledgment. Dr. Tomokiyo did not say anything about any phrase not being selectable. Patent Owner relies on an answer of Dr. Tomokiyo that reads: “I think the selection refers to the phrase within the input for the number of versions guaranteed.” *Id.* at 2. But that is referring to a selection operation and does not convey information about what is not selectable. Moreover, Dr. Tomokiyo’s reference to selecting a “phrase within the input” refers to selecting the top phrase in area 27 of Fig. 6, which is a kanji candidate from a list of candidates on display. Thus, the cross-examination testimony of Dr. Tomokiyo does not support Patent Owner’s argument that Tanaka does not disclose the limitation added by claims 3 and 13.

Patent Owner further asserts that in Tanaka’s system, when the “electronic dictionary” region is selected by the user, no ideogrammatic representation is searched but only the original focus term, which is the phonetic input in kana. PO Resp. 34. The argument is misplaced and unpersuasive. Tanaka’s Paragraph 46 does refer to searching the dictionary with the original focus phrase, in kana, as the search term. However, the reference to the original focus phrase is by example, only, and as discussed above the focus phrase is updated when the user has selected a kanji candidate. Specifically, Tanaka describes that the user’s selection becomes the new focus phrase. Ex. 1004 ¶ 39. Furthermore, we note also the following discussion in Petitioner’s Reply, which explains what is the selected text in Tanaka for obtaining dictionary information:

For example, as shown in Tanaka's Fig. 6, *before* the electronic dictionary is activated using pen 26 to obtain further information, the selected (*i.e.*, highlighted) portion contains *both* kana and kanji—*i.e.*, the selected phrase “保証の” (which means “of guarantees”) contains “保証” (which are **kanji**) and “の” (which is kana):



Tanaka, Fig. 6 (original)

Tanaka, Fig. 6 (translated)

Reply 20–21. Tanaka's Figure 6 illustrates a screen shot just prior to activation of the electronic dictionary functionality. The above-quoted explanation is supported by the disclosure of Tanaka, is logical, and is persuasive. On the basis of the entirety of the evidence presented, we find that the limitation added by claims 3 and 13 is disclosed by Tanaka.¹¹

¹¹ In Dr. Tomokiyo's First Declaration, there is testimony regarding an alternative position, *i.e.*, that the limitation added by claims 3 and 13 would have been obvious to one with ordinary skill in the art. We decline to consider that testimony and also decline to consider such an argument, because the argument was not expressly presented in the Petition within the analysis of claims 3 and 13. In that regard, note discussions in the Petition on pages 34–36 regarding claim 3 and on page 39 regarding claim 13. Insofar as that argument appears in Petitioner's Reply, we decline to consider it because it constitutes a belated new argument. We are aware of footnote 18 appearing on pages 59–60 of the Petition, in which Petitioner states that to the extent that any limitation is not deemed disclosed by prior art, it still would have been obvious to one with ordinary skill in the art. The statement does not give sufficient reasonable notice, either to Patent Owner or to the Board, of what claim limitation would have been obvious and why.

4. Dependent Claims 5 and 15

Claim 5 depends from claim 3, and further recites: “wherein the processor is further configured to control the display device to provide an indication that the further information relating to each of the displayed ideogrammatic representations is accessible for viewing by the user by operating an input interface.” Claim 15 depends from claim 13, and further recites: “controlling the display device to provide an indication that the further information relating to each of the displayed ideogrammatic representations is accessible for viewing by the user by operating an input interface.” The added limitations of claims 5 and 15 are essentially the same, but for the difference that one is a process step and the other is a functionality of the processor. They will be addressed collectively.

Petitioner makes two contentions. First, Petitioner argues that the added limitations of claims 5 and 15 are disclosed by Tanaka. Pet. 36–39. Second, in the alternative, Petitioner argues that the added limitations would have been rendered obvious by Tanaka to one with ordinary skill in the art. *Id.* at 37 n.8. Petitioner has not made a sufficient showing with respect to the first contention that Tanaka discloses the added limitation of claims 5 and 15. However, we are persuaded by Petitioner’s alternate contention, notwithstanding the contrary argument of Patent Owner, that Tanaka renders obvious to one with ordinary skill in the art the added limitation of claims 5 and 15. We discuss Petitioner’s two contentions in turn.

In Tanaka’s system, after a user triggers a dictionary operation in connection with a particular ideogrammatic representation, two results are possible. If there is an associated dictionary definition, that information is displayed. Ex. 1004 ¶ 50. If there is no dictionary information associated

with the ideogrammatic representation, then the system informs the user that there is no related information. *Id.* ¶ 49. Petitioner regards Tanaka’s dictionary feature as indicating to the user that further information is accessible for viewing, even though the indication would come only after the user’s having triggered the dictionary operation and only “if” a definition is in fact available. Pet. 36–38. Petitioner explains that triggering Tanaka’s dictionary operation results in an indication to the user whether further information is accessible for viewing by the user. Reply 21.

Petitioner’s argument is unpersuasive. Learning whether information is available as a consequence of an attempt to access the information, without first knowing if the information is in fact available, is not reasonably the same as indicating that further information is accessible. It is unreasonable to treat actual display of further information as constituting an indication that the further information is accessible for viewing by the user. Such a reading of “indication” in the context of claims 5 and 15 is unnatural and circular. Considering also that a dictionary definition is not always available in Tanaka when the dictionary function is triggered, we regard Petitioner’s reading of “indication” in claims 5 and 15 to be unreasonably broad. Learning whether further information is available by way of an attempt to access the information does not satisfy the requirement of

providing an indication that further information is accessible for viewing by the user.¹²

Petitioner explains in the alternative, however, why it would have been obvious to one with ordinary skill in the art, in light of Tanaka's disclosure of responding to a user's request for more information with an answer that no information is available, to indicate to the user, when a kanji character is displayed, whether further information is available to the user by operating an interface. Pet. 37 n.8. The explanation is supported by the testimony of Dr. Tomokiyo. Ex. 1003 ¶ 128. Dr. Tomokiyo testifies that the general functionality of providing a visual indication that further information is available for selection is well-known in the art, and identifies specific examples of such well-known functionality by reference to Exhibits 1009, 1018, and 1019. *Id.* Dr. Tomokiyo further testifies that "[a] POSITA would have been motivated to provide this well-known functionality to, *e.g.*, save a user from having to select the 'Electronic dictionary' button [of Tanaka] only to discover that, in some instances, there is no further information available, thus making the overall system more user-friendly." *Id.* We credit the testimony of Dr. Tomokiyo with regard to the reasoning for one with ordinary skill in the art to add to Tanaka the feature of

¹² Dr. Tomokiyo expresses her opinion that Tanaka "discloses, or at a minimum renders obvious, this element [of claims 5 and 15]." Ex. 1003 ¶ 125. Dr. Tomokiyo, however, provides no meaningful explanation as to the "discloses" aspect, as opposed to the "renders obvious" aspect, of her opinion. Thus, we do not credit and are not persuaded by the "discloses" aspect of her testimony. It is also uncertain whether Dr. Tomokiyo has even testified that Tanaka "discloses" the limitation added by claims 5 and 15, because the pertinent sentence in her testimony expresses a disjunctive, only one alternative of which has to be met.

providing an indication that further information for a displayed ideogrammatic representation is available for viewing by user operation of an input interface, and find it persuasive. The reasoning provided has rational underpinnings, and is not, as Patent Owner contends (PO Resp. 36), based on hindsight in light of the disclosure of the '552 patent.

For the foregoing reasons, we determine that Petitioner has shown by a preponderance of the evidence that the subject matter of each of claims 5 and 15 is unpatentable as obvious over Tanaka.

E. Claims 1–3, 9, 11–13, 19, and 22
as Obvious over Wu and Nishikawa

We have reviewed the arguments and evidence presented by Petitioner, and determine that, notwithstanding the arguments of Patent Owner, Petitioner has established by a preponderance of the evidence that each of claims 1–3, 9, 11–13, 19, and 22 is unpatentable as obvious over Wu and Nishikawa.

Wu

Wu discloses a system and method for entering into a device Chinese characters (ideograms) using Pinyin words (phonetic input). Ex. 1005, Abstr. After entry by a user of the Pinyin for a desired Chinese character, Wu's system displays on a screen, and possibly also off-screen if the potentially matching characters are too many, all possible matching characters and phrases. *Id.* The user then selects the desired one by scrolling through all candidates. *Id.* Wu describes that the list of words corresponding to the inputted Pinyin aids the user in resolving ambiguity in the entered Pinyin phonetic spelling by showing the most frequently occurring candidate corresponding to the spelling and other less frequently

occurring candidates. *Id.* at 9:35–41. Wu’s system includes a processor, a keyboard, and a display. *Id.* at 9:64–66. It is described that the processor receives input from the keyboard and manages all output to the display. *Id.* at 9:67–10:2. Wu describes that in a preferred embodiment, shown in Figure 2, its system is incorporated in a portable cellular telephone. *Id.* at 8:64–67. With reference to the portable cellular phone embodiment of Figure 2, Wu describes the possible use of large screens. *Id.* 10:18–36. Wu also states: “Recent advances in two-way paging, cellular telephones, and other portable wireless technologies have led to a demand for small and portable two-way messaging systems, and especially for systems which can both send and receive electronic mail (‘email’).” *Id.* at 1:41–46.

Nishikawa

Nishikawa discloses a Japanese input device that converts phonetic input to kanji ideograms. Ex. 1006, Abstr. An example of the phonetic input is input of letters in kana. *Id.* ¶¶ 3, 17. Nishikawa explains that a plurality of homonyms may exist for an input string and that all kanji candidates corresponding to a phonetic input are displayed for selection. *Id.* Nishikawa describes that where there exists a plurality of kanji homonyms corresponding to the same entered phonetic input, the system will display identification elements for each kanji candidate. *Id.* ¶ 23. The identification elements for each kanji candidate may include “sample terms,” “exemplary phrases,” or the meaning of the kanji candidate. *Id.* ¶¶ 13, 18, 22. Nishikawa’s Figure 6 shows the display of exemplary phrases for a corresponding kanji candidate.

1. Independent Claims 1, 11, and 22

As in the case discussed above regarding obviousness of these claims over iMac Fan or over Tanaka, here in the context of Wu and Nishikawa we also regard claim 1 as representative. Our discussion of claim 1 applies to the corresponding limitations of claims 11 and 22.

Claim 1 recites, in pertinent part: “[a]n apparatus, comprising: a processor configured to control a display device to display thereon one or more ideogrammatic representations of a phonetic input according to a language.” Based on our discussion of Wu above, and on Petitioner’s presentations on pages 48–49 of the Petition, Petitioner has shown that the limitation at issue is disclosed by Wu. Specifically, we find that Wu’s Chinese characters correspond to the ideogrammatic representations of claim 1 and Wu’s Pinyin words correspond to the phonetic input of claim 1.

Claim 1 further recites, with respect to the processor: “and configured to provide further information in the language according to which the ideogrammatic representations are each selectable by a user for incorporation into a text message.” Based on our discussion of Wu and Nishikawa, and on Petitioner’s presentations on pages 44–46 and 49–51 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 163–72 and 177–83 (Ex. 1003), Petitioner has shown that this limitation is met by the combined teachings of Wu and Nishikawa, notwithstanding the contrary argument of Patent Owner which we discuss below. The showing is based on incorporating into a system such as that of Wu the feature of Nishikawa with respect to providing further information corresponding to ideogram candidates to assist the user in selecting the intended ideogram corresponding to phonetic input entered by the user.

Petitioner has provided reasoning with rational underpinnings to support such a combination. Specifically, as explained by Petitioner (Pet. 44–46), Nishikawa recognizes a problem arising from the existence of multiple homonyms in kanji corresponding to the same phonetic input in kana, and provides a solution. One with ordinary skill in the art would have recognized that Wu’s system, which is used to enter Chinese characters by way of Pinyin phonetic input, can benefit from adopting the same solution to solve the same problem.

However, with regard to the “incorporation into a text message” aspect of this limitation, for which Petitioner presented two alternative lines of reasoning, the showing is adequate with respect to only one but not the other, as explained below.

Petitioner asserts that because Wu’s system provides a textual output incorporating the kanji ideograms, Wu’s disclosure meets the “incorporation into a text message” limitation. Pet. 49. We are unpersuaded. It is not explained how the output text constitutes a message, given that neither a recipient of the output nor a transmission of the output is indicated. Petitioner identifies no disclosure in Wu of such a recipient or transmission. We are not persuaded that mere textual output constitutes a text message. The message component is not sufficiently addressed by Petitioner. We have determined that a “text message” does not have to be a message sent by means of a hand-held wireless communication device. Even on that premise, however, Petitioner has not sufficiently shown that the textual output of Wu constitutes a text message.

We have determined that a “text message” does not have to be a message sent by means of a hand-held wireless communication device.

However, it is *a message including text, which is transmitted or received by a device*. That means it still must be associated with a device that includes the functionality of sending or receiving the message. Therefore, a user's entering text into a computer, outside of the environment of any communication application, program, or functionality, does not form a text message. Note that Petitioner has submitted no testimony of any expert to the effect that one with ordinary skill in the art would have regarded any text inputted by a user into a computer as a text message. Construing "text message" that broadly would be unreasonable. Petitioner has not shown that the textual output of a system according to the combination of Wu and Nishikawa constitutes a text message.

In the alternative, however, Petitioner asserts that it would have been obvious to implement Wu's input system for entering a text message. Pet. 49–50 n.11. Petitioner relies on the testimony of Dr. Tomokiyo for support. Dr. Tomokiyo recognizes that Wu's preferred embodiment is implemented on a portable cellular phone and testifies that given the well-known use of cell phones for entering text messages, it would have been obvious to one with ordinary skill in the art to incorporate Wu's "textual output" including ideogrammatic representations (e.g., Chinese characters) into a text message. Ex. 1003 ¶ 180. We credit this testimony of Dr. Tomokiyo and are persuaded by the reasoning it embodies.

Wu's preferred embodiment of Figure 2 is a portable cellular telephone, Ex. 1005, 8:64–67, and Dr. Tomokiyo identifies multiple prior art portable wireless telephones that support and provide text messaging, as evidence of the well-known use of cellular phones for text messaging. Ex. 1003 ¶ 180. Specifically, Dr. Tomokiyo identifies: (1) U.S. Published

Patent Application No. 2003/0023426 A1 (Ex. 1015), published Jan. 30, 2003, which discloses a wireless telephone with text-messaging capability and incorporates Japanese kanji characters converted from phonetic input into a text message; (2) U.S. Patent No. 5,786,776 (Ex. 1016), issued July 28, 1998, which discloses a cellular telephone that supports inputting Japanese characters to realize message communication; and (3) U.S. Patent No. 7,385,531 B2 (Ex. 1017), PCT filed March 5, 2003, which discloses a system for implementation on a mobile telephone for entering Chinese characters into a text message. Ex. 1003 ¶ 180. Dr. Tomokiyo further recognizes that Wu itself describes the existence of “a demand for small and portable two-way messaging systems.” *Id.* (quoting Ex. 1005, 1:44–46). We credit the testimony of Dr. Tomokiyo with regard to the state of the prior art on the use of cellular phones for text messaging. We find that it was well-known to one with ordinary skill in the art that cellular phones can be used for sending and receiving text messages.

Patent Owner argues:

Wu is said to express the existence of “a demand for small and portable two-way messaging systems.” Ex. 1003 ¶ 180 (citing Ex. 1005, 1:44–46). As is known in the art, such systems are characterized by small displays to accommodate hand-held use. *Nishikawa*’s Japanese input device, on the other hand, describes a conventional display associated with a personal computer or word processor (e.g., “a CRT, liquid crystal display device, or the like”). Ex. 1006 at [0014]. Such a display can accommodate much more information than a small display associated with a “small and portable two-way messaging system,” hence, a person of ordinary skill in the art would not look to display techniques taught by *Nishikawa* in connection with such devices. More particularly, the person of ordinary skill in the art would not look to *Nishikawa* for providing further information (other than an indication of a phonetic input) for

incorporating a selected ideogrammatic representation of the phonetic input in a text message in view of *Wu*. The person of ordinary skill in the art would have deemed *Nishikawa* to be concerned with techniques applicable to display devices unsuitable for and, therefore, inapplicable to, mobile devices.

PO Resp. 37–38. The above-quoted argument is not supported by the testimony of any expert witness with regard to how one with ordinary skill in the art would read the disclosure of *Nishikawa*, in particular to the assertion that the disclosure would be unsuitable for use on mobile devices. It also is not supported by any identified description in *Nishikawa* to the effect that the disclosed system and method for entering kanji is inapplicable or unsuitable for use on mobile or cellular telephones. Patent Owner, in that regard, has submitted only attorney argument. Argument of counsel, however, cannot take the place of evidence lacking in the record. *See Estée Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997); *Meitzner v. Mindick*, 549 F.2d 775, 782 (CCPA 1977); *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

Also, we are unpersuaded by Patent Owner’s argument for several reasons. First, in Paragraphs 168–171 of her First Declaration, Dr. Tomokiyo explains why it would have been obvious to one with ordinary skill in the art to apply *Nishikawa*’s technique in *Wu*’s system and method. Ex. 1003 ¶¶ 168–171. Dr. Tomokiyo provided her testimony despite having expressly recognized that *Wu* discloses the use of a portable cellular telephone in a preferred embodiment. *Id.* ¶ 165. Second, even in the context of its portable cellular telephone embodiment of Figure 2, *Wu* refers to the use of a large screen, in stating: “On large-screen devices, a Pinyin selection list of possible interpretations of the entered keystrokes and a Chinese phrase selection list of the selected Pinyin spelling are displayed

to the user in the selection list regions.” Ex. 1005, 10:18–31. Third, Wu describes that when screen size presents a problem, information may be stored off-screen and still accessed by use of a scrolling functionality. *Id.* at 6:4–8. Petitioner in its Petition specifically identified Wu’s disclosure that a large screen may be used and Wu’s disclosure that when screen size is a problem, information may be stored off-screen and accessed by scrolling. Pet. 42–43. The evidence of record simply does not support Patent Owner’s contention.

Claim 1 additionally recites: “wherein the further information comprises information other than an indication of the phonetic input.” Based on our discussion of Wu and Nishikawa above, and on Petitioner’s presentations on pages 44–46 and 51–52 of the Petition, supported by the testimony of Dr. Tomokiyo in her Declaration Paragraphs 163–72 and 184–87 (Ex. 1003), Petitioner has shown that this limitation is disclosed by the combined teachings of Wu and Nishikawa, notwithstanding the contrary arguments of Patent Owner.¹³

Petitioner’s showing is based on incorporating into a system such as that of Wu the feature of Nishikawa with respect to providing further information corresponding to ideogram candidates to assist the user in selecting the intended ideogram corresponding to phonetic input entered by the user. Petitioner has provided reasoning with rational underpinnings to support such a combination. As explained by Petitioner (Pet. 44–46),

¹³ Patent Owner does not make any argument with respect to this limitation other than, generally, that one with ordinary skill in the art would not have adopted teachings from Nishikawa for inclusion in Wu’s system. That argument already has been addressed and rejected above.

Nishikawa recognizes a problem arising from the existence of multiple homonyms in kanji corresponding to the same phonetic input in kana, and provides a solution. Specifically, the solution is in the form of making available further information about a kanji candidate that is different from its phonetic input. Ex. 1006 ¶¶ 13, 14, 18, 22, 23; Ex. 1003 ¶ 166. One with ordinary skill in the art would have recognized that Wu's system, which is used to enter Chinese characters by way of Pinyin phonetic input, can and would benefit from adopting the same solution to solve the same problem.

For the foregoing reasons, the combined teachings of Wu and Nishikawa meet all of the requirements of each of claims 1, 11, and 22, in the manner as is recited in these claims. We determine that Petitioner has shown by a preponderance of the evidence that each of claims 1, 11, and 22 is unpatentable as obvious over Wu and Nishikawa.

2. Dependent Claims 2, 3, 9, 12, 13, and 19

Claims 2, 3, and 9 depend, directly or indirectly, from claim 1. Claims 12, 13, and 19 depend, directly or indirectly, from claim 11. For these claims, Patent Owner presents no argument not already addressed and rejected above in the context of claim 1. We have reviewed the presentation of Petitioner on pages 52, 53, 55, and 56 of the Petition. For the reasons discussed therein we find that the combined teachings of Wu and Nishikawa meet the additional requirements of each of claims 2, 3, 9, 12, 13, and 19. Petitioner has shown by a preponderance of the evidence that each of claims 2, 3, 9, 12, 13, and 19 is unpatentable as obvious over Wu and Nishikawa.

F. Claims 5 and 15 as Obvious over
Wu, Nishikawa, and Fushimoto

We have reviewed the arguments and evidence presented by Petitioner, and determine that, notwithstanding the arguments of Patent Owner, Petitioner has established by a preponderance of the evidence that each of claims 5 and 15 is unpatentable as obvious over Wu, Nishikawa, and Fushimoto.

Claim 5 depends from claim 3, and further recites: “wherein the processor is further configured to control the display device to provide an indication that the further information relating to each of the displayed ideogrammatic representations is accessible for viewing by the user by operating an input interface.” Claim 15 depends from claim 13, and further recites: “controlling the display device to provide an indication that the further information relating to each of the displayed ideogrammatic representations is accessible for viewing by the user by operating an input interface.” The added limitations of claims 5 and 15 are essentially the same, but for the difference that one is a process step and the other is a functionality of the processor. They will be addressed collectively.

As discussed above, the combined teachings of Wu and Nishikawa account for claims 3 and 13. However, they do not account for the limitation added by claims 5 and 15 relative to base claims 3 and 13. For the limitation added by claims 5 and 15, Petitioner relies on the disclosure of Fushimoto. Pet. 54–56. Fushimoto discloses converting a phonetic input to a corresponding ideogrammatic kanji representation. Ex. 1009, 2:57–59. Fushimoto also discloses that information associated with an ideogrammatic kanji representation candidate that is on display, corresponding to a phonetic

input, can be provided, such as a synonym or an antonym, if available, upon depression of a SYN/ANT key. *Id.* at 3:3–6, 3:29–32. Fushimoto further discloses displaying a “SYN/ANT flag” as an indicator to the user that associated information is available for a kanji representation. *Id.* at 3:27–29.

Based on the above-noted disclosure of Fushimoto, and the supporting testimony of Dr. Tomokiyo in Paragraph 198 of her First Declaration (Ex. 1003), we find that Fushimoto discloses the limitation added by claims 5 and 15 relative to their base claims 3 and 13. We have further reviewed Petitioner’s articulated reasoning, expressed on pages 46–48 of the Petition, for combining the teachings of Fushimoto with those of Wu and Nishikawa to account for the added limitation of claims 5 and 15, and determine that the reasoning articulated by Petitioner have rational underpinnings and are persuasive. Petitioner explains that Wu, Nishikawa, and Fushimoto are all concerned with providing a system that assists a user to select an ideogram based on a phonetic input. Pet. 47. The Petitioner further explains:

[A] POSITA would have understood that Fushimoto’s teaching of displaying an indicator (e.g., SYN/ANT flag) when further information, such as synonyms and antonyms for a particular ideogram, is available would have saved a user’s time spent on selecting candidates that have no further information associated with them, thus making the overall system more efficient. See, e.g., Ex. 1009 2:60–3:35. Thus, a POSITA would have understood that Fushimoto’s teaching of providing an indication that further information is available would have helped a user in operating the [Petitioner’s combined teachings of Wu and Nishikawa for meeting claim 1] to further save on time spent on selecting the appropriate ideogram for the phonetic input. Ex. 1003 ¶ 172. A POSITA would have recognized that this obvious and straightforward implementation choice would work as expected. Ex. 1003 ¶ 172.

Id. at 47–48. The stated reasoning has rational basis and is thorough. We are persuaded thereby.

Patent Owner argues that Fushimoto does not disclose the limitation added by claims 5 and 15 relative to their base claims 3 and 13. PO Resp. 38–39. For reasons discussed below, the argument is without merit.

First, Patent Owner argues:

In *Fushimoto*, the SYN/ANT flag is displayed to indicate that a synonym or antonym of a displayed ideogrammatic representation is available. *Ex. 1009* at 3:28–30. Depressing the SYN/ANT key causes the display of that synonym or antonym – that is, an entirely new ideogrammatic representation is presented for an input ideogrammatic representation. *Id.* at 3:30–32; *Ex. 2011* at 79:20–80:16; 82:6–22. There is no suggestion that once the synonym or antonym is displayed, one can select the original ideogrammatic representation.

PO Resp. 39. The argument is misplaced. Petitioner has not relied on *Fushimoto* to teach the selectable ideogrammatic representations of claim 1. Obviousness may not be undermined by arguments attacking references individually when the ground of obviousness is based on a combination of prior art references. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). This is not a case of Petitioner’s not considering the entirety of *Fushimoto* or not looking at the disclosure of *Fushimoto* as a whole. Patent Owner has not identified anything in *Fushimoto* that would indicate to one with ordinary skill in the art that its synonym/antonym feature would have utility only if everything else disclosed in *Fushimoto* is adopted, including the lack of any particular feature that is required by Patent Owner’s claims. A reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect. *See*

EWP Corp. v. Reliance Universal Inc., 755 F.2d 898, 907 (Fed. Cir. 1985);
In re Heck, 699 F.2d 1331, 1332–33 (Fed. Cir. 1983).

Second, Patent Owner argues:

Moreover, the synonym or antonym would not permit a user to differentiate a respective ideogrammatic representation for a phonetic input from any other ideogrammatic representation for that same phonetic input (in accordance with the meaning of “further information” discussed above). Indeed, the synonym or antonym is not even provided for the original phonetic input but instead for an input ideogrammatic representation. Thus, the SYN/ANT flag does not aid the user in selecting the correct ideogram for the phonetic input, and so is not an indicator of “further information” as claimed.

PO Resp. 39. The argument also is misplaced, because it depends on Patent Owner’s construction of “further information,” which we have rejected above in the section of our analysis discussing claim construction. The term “further information” does not require the narrow restrictions Patent Owner has sought to read into it from the Specification. In any event, we are unpersuaded that providing the synonym or antonym of a given ideogram does not assist a user to distinguish that ideogram from other ideograms that may happen to correspond to the same phonetic input. We agree, instead, with Petitioner’s explanation that it does. Reply 26 n.5.

As discussed above, the combined teachings of Wu, Nishikawa, and Fushimoto account for all of the limitations of claims 5 and 15 in the manner recited in those claims. Petitioner has established by a preponderance of the evidence that each of claims 5 and 15 is unpatentable as obvious over Wu, Nishikawa, and Fushimoto.

G. Alleged New Arguments of Patent Owner at Oral Hearing

During oral hearing on October 4, 2016, counsel for Petitioner objected to the making of several arguments at oral hearing that, in Petitioner's view, constitute argument not previously presented. Tr. 50–51. We address those assertions, none of which has merit, in sequence.

1.

First, Petitioner contends that any argument about the iMac Fan publisher's Declaration not being supported by underlying facts was first presented at oral hearing. Tr. 50:20–23. However, Patent Owner's counsel was merely answering a question from the panel on whether the Declaration itself from an officer of the publisher, without more, is sufficient to establish the publication date of iMac Fan, in stating: "The declaration states a conclusion, Your Honor, with no facts or other information as to how that conclusion was reached, and, therefore, we didn't feel it warranted further discovery. It simply does not meet the test for the type of testimony." Tr. 40:9–13.

Pointing out that a declaration statement is merely conclusory and presents no underlying facts is not presenting a new argument where, as here, Patent Owner in its Patent Owner Response consistently refutes that Petitioner has established a date of publication for iMac Fan prior to Patent Owner's effective filing date. It is noting what is self-evident, that the statement provides no context. In any event, whether the declaration statement itself is sufficient to establish a date of publication is not an issue before us and need not be decided, because Petitioner has submitted a multitude of other evidence that in combination with the statement from the publisher of iMac Fan establish a date of publication for iMac Fan.

2.

Second, Petitioner contends that counsel for Patent Owner argued for the first time at oral hearing that Petitioner's expert in the field of library science, Dr. Ingrid Hsieh-Yee, did not herself conduct a search for iMac Fan. Tr. 51:10–12. We have searched the transcript of the oral hearing and cannot locate any such argument from Patent Owner. Instead, the record reflects that counsel for Patent Owner specifically acknowledged actual searching by Dr. Hsieh-Yee. Tr. 41:14–21.

3.

Third, Petitioner contends that counsel for Patent Owner argued for the first time at oral hearing that a document had to have been in fact accessed, such as being pulled from a library, to be considered a publication. Tr. 51:13–16. We are unable to locate any such argument from the Patent Owner at oral hearing. Although counsel from Patent Owner, when responding to a question from the panel, did state that “there is no evidence in the record that anybody ever actually checked it out from either institution,” Tr. 41:4–6, that is short of arguing that to constitute a publication a reference had to have been actually accessed by someone. In any event, regarding publication, if there is sufficient public accessibility of a document, there is no requirement that anyone actually accessed the document. *See, e.g., In re Enhanced Sec. Research, LLC*, 739 F.3d 1347, 1364 (Fed. Cir. 2014).

4.

Fourth, Petitioner contends that counsel for Patent Owner argued for the first time at oral hearing about the timing of iMac Fan's searchability. Tr. 50:19–23. However, the timing of searchability by subject was raised in

the Patent Owner Response. On page 25 of the Patent Owner Response, Patent Owner states: “There is no evidence that *prior to the time of filing of the ’552 patent* the Kanagawa Institute of Technology Library copy of iMac Fan (Ex. 1022) was searchable by subject.” PO Resp. 25 (emphasis added). We can find no argument by Patent Owner at oral hearing that the copies of iMac Fan at the two libraries were not, prior to the time of filing of the ’552 patent, searchable by author or title. Instead, at oral hearing, Patent Owner’s argument was directed to searchability by subject. Tr. 39:18–19.

III. CONCLUSION

Petitioner has shown, by a preponderance of the evidence, that claims 1–3, 5, 9, 11–13, 15, 19, and 22 are unpatentable under 35 U.S.C. § 103 as obvious over iMac Fan.

Petitioner has shown, by a preponderance of the evidence, that claims 1–3, 5, 9, 11–13, 15, 19, and 22 are unpatentable under 35 U.S.C. § 103 as obvious over Tanaka.

Petitioner has shown, by a preponderance of the evidence, that claims 1–3, 9, 11–13, 19, and 22 are unpatentable under 35 U.S.C. § 103 as obvious over Wu and Nishikawa.

Petitioner has shown, by a preponderance of the evidence, that claims 5 and 15 are unpatentable under 35 U.S.C. § 103 as obvious over Wu, Nishikawa, and Fushimoto.

IV. ORDER

It is

ORDERED that claims 1–3, 5, 9, 11–13, 15, 19, and 22 of the ’552 patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

FOR PETITIONER:

J. Steven Baughman
Megan F. Raymond
Nicole M. Jantzi
steven.baughman@ropesgray.com
megan.raymond@ropesgray.com
nicole.jantzi@ropesgray.com

FOR PATENT OWNER:

Tarek Fahmi
Holly Atkinson
tarek.fahmi@ascendalaw.com
holly.atkinson@ascendalaw.com