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Paper 78
Entered: March 3, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAPTIONCALL, L.L.C.,
Petitioner,

v.

ULTRATEC, INC.,
Patent Owner.

Case IPR2013-00540
Patent 6,233,314 B1

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

BENOIT, *Administrative Patent Judge*.

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

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,233,314 B1 (Ex. 1021; “the ’314 patent”) are unpatentable.

A. Procedural History

CaptionCall, L.L.C. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 2 of the ’314 patent pursuant to 35 U.S.C. §§ 311-319. Paper 1 (“Pet.”). Patent Owner, Ultratec, Inc., did not file a preliminary response. On March 5, 2014, pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review for claims 1 and 2 of the ’314 patent on the following grounds of unpatentability: under 35 U.S.C. § 102(e) as anticipated by Ryan¹ and under 35 U.S.C. § 103(a) for obviousness over Wycherley² and Yamamoto.³ Paper 8 (“Inst. Dec.”).

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 30; “PO Resp.”), and Petitioner filed a Reply (Paper 35; “Reply”). Patent Owner also filed Motions to Exclude Evidence. Paper 45

¹ U.S. Patent No. 5,809,112 (Ex. 1004) (“Ryan”).

² U.S. Patent No. 5,163,081 (Ex. 1002) (“Wycherley”).

³ Seiichi Yamamoto & Masanobu Fujioka, *New Applications of Voice Recognition*, Proc. JASJ Conf. (March 1996) (Ex. 1005). Unless indicated otherwise, all subsequent citations to Yamamoto refer to its English translation (Ex. 1006).

(“PO Mot. to Exc. Occhiogrosso”); Paper 46 (“PO Mot. to Exc. Yamamoto”). Petitioner filed a combined Opposition (Paper 55; “Pet. Opp. to Mots. to Exc.”) to Patent Owner’s Motions, and Patent Owner filed a Reply to Petitioner’s Opposition (Paper 58; “PO Reply to Opp. to Mots. to Exc.”). Also, Petitioner filed a Motion for Leave to File Supplemental Evidence Regarding Yamamoto (Paper 52), and Patent Owner filed an Opposition to Petitioner’s Motion (Paper 57). In response to the Board’s order (Paper 63), Petitioner filed additional briefing (Paper 65) regarding the public availability of Yamamoto. In turn, Patent Owner filed a response (Paper 67), to which Petitioner filed a Reply (Paper 68).

An oral hearing was held on November 19, 2014.⁴

B. Related Proceedings

Petitioner represents that the ’314 patent was asserted against its parent company in *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). Pet. 2. Petitioner also represents that in the same district court proceeding Patent Owner asserted the following patents at issue in *inter partes* reviews—U.S. Patent No. 5,909,482 (Case IPR2013-00541), U.S. Patent No. 7,319,740 (Case IPR2013-00542), U.S. Patent No. 7,555,104 (Case IPR2013-00543), U.S. Patent No. 8,213,578 (Case IPR2013-00544), U.S. Patent No. 6,594,346 (Case IPR2013-00545),

⁴ This proceeding, as well as IPR2013-00541, IPR2013-00542, IPR2013-00543, IPR2013-00544, IPR2013-00545, IPR2013-00549, and IPR2013-00550 involve the same parties and some similar issues. The oral arguments for all eight reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 77.

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U.S. Patent No. 6,603,835 (Case IPR2013-00549), and U.S. Patent No. 7,003,082 (Case IPR2013-00550).

C. The '314 Patent

The '314 patent discusses a way to assist deaf, hard of hearing, or otherwise hearing impaired individuals to use telephones. Ex. 1021, 1:14-18. According to the '314 patent, conventional assistance uses a device having a keyboard and display, which may be called a text telephone (TT), a teletype (TTY), or a telecommunication device for the deaf (TDD). *Id.* at 1:26-29. A human intermediary facilitates communication between a hearing user and a hearing impaired user by communicating by voice with the hearing user and using a TDD to communicate with the hearing impaired user. *Id.* at 1:61-65. The system of voice-to-TDD communication used by the human intermediary (called an operator or call assistant) is referred to as a relay. *Id.*

The '314 patent indicates the effectiveness of relay systems is limited by the speed at which a call assistant can type the words said by the hearing user. *Id.* at 2: 9-22. The '314 patent relates to a relay system to improve performance of voice-to-text interpretation for translating between hearing impaired and hearing users. *Id.* at 3:13-16. Instead of typing the hearing user's words, the call assistant speaks those words into a microphone that transmits the voice of the call assistant to a computer with voice recognition software that is trained to the voice of the call assistant. *Id.* at 5:27-46. The computer translates the words of the call assistant to digital text, which is sent to a display of the hearing impaired user. *Id.* at 5:49-64.

D. Illustrative Claim

Petitioner challenges both claims of the '314 patent. Claims 1 and 2 are independent claims. Claim 2 is illustrative of the claims at issue and reads as follows:

2. A relay to facilitate communication between a digital telecommunication device and a hearing person through a telephone system and using a call assistant, the relay comprising
 - a speaker connected to receive voice communications from the telephone system and transmit those voice communications to the ear of the call assistant;
 - a microphone connected to pickup voice spoken by the call assistant;
 - a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream; and
 - a modem connected to the digital computer to transit the digital text stream created by the computer over the telephone system to the telecommunication device.

Id. at 8:37-53.

II. ANALYSIS

A. *Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No. 2014-1301, slip op. at 11–19 (Fed. Cir. Feb. 4, 2015). Under the broadest reasonable construction standard, claim terms are

presumed to be given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe “the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” recited in claims 1 and 2, in accordance with these principles. No other claim terms require express construction.

1. *“trained to the voice of the call assistant”*

Neither party expressly proposes a construction for “trained to the voice of the call assistant.” See Pet. 6-7; PO Resp. 8-12; Reply 2. In their dispute over the teachings of the asserted prior art, however, the parties articulate different views on how the term should be construed. Patent Owner construes “trained to the voice of the call assistant” to require training to recognize individual voices (PO Resp. 27-28), presumably trained to the voice of one and only one call assistant and precluding training for a type of speech used by a group of people (such as a regional accent) that could apply to more than one call assistant. Patent Owner also seeks to construe “trained to the voice of the call assistant” as having a temporal constraint so as to preclude training at the time when the voice recognition

computer software package is “*designed* in advance of implementation at the source code level.” PO Resp. 26. According to Patent Owner, “trained to the voice of the call assistant” precludes software that is “built to” recognize the voice of a particular agent. PO Resp. 27. Petitioner disagrees. Reply 5.

The Specification of the ’314 patent does not set forth a special definition for “training.” The Specification, however, in its “Brief Summary of the Invention,” indicates “a speech recognition computer program which has been trained to the voice *pattern* of the call assistant.” Ex. 1021, 2:45-48 (emphasis added). In the context of describing the relay shown in Figure 1, the Specification describes “the call assistant operat[ing] at a computer terminal which contains a copy of a voice recognition software package which is specifically trained to the voice of that *particular* call assistant.” *Id.* at 5:45-48 (emphasis added). The Specification, however, does not indicate expressly that the voice recognition software is trained to the voice of only that particular call assistant or otherwise indicate the voice recognition software is trained for the voice of only one call assistant.

As such, the Specification contemplates software trained to “a voice pattern of the call assistant” as well as software “specifically trained to the voice of [a] particular call assistant.” Further, the Specification indicates, in those passages, that the voice recognition software package is trained but does not indicate when or how the training occurs. *Id.* at 2:45-48, 5:45-48. Patent Owner, relying on its declarant Mr. Paul W. Ludwick, asserts software “designed” is not software that is “trained to recognize individual voices.” PO Resp. 26. According to Mr. Ludwick, a person of ordinary skill in the art would not have understood “trained” software to include

“designed” software because technology to train software to recognize individual voices did not exist in 1994 and was not used in telecommunications relay service at that time. PO Resp. 26 (citing Ex. 2010 ¶¶ 21-22). We also note here that the technology available in 1994 has little probative value here because the year of invention is 1997, for the reasons discussed below.

We give claim language its broadest reasonable construction in light of the specification of the patent in which it appears. Thus, we will not limit “trained to the voice of the call assistant” to require training to the voice of only one particular call assistant, because the claim language encompasses the invention as disclosed in the Specification—software trained to a voice *pattern* of a call assistant. Ex. 1021, 2:41-49 (“Summary of the Invention”). Nor will we limit “trained to the voice of the call assistant” to a particular time in which the training must occur or to a particular manner of training that is not found in the claims nor the Specification.

Accordingly, “trained to the voice of the call assistant” does not preclude voice recognition software that is designed or built in advance of implementation at the source code level to the voice pattern of a call assistant. Nor is “trained to the voice of the call assistant” limited to training to the voice of one and only one call assistant.

2. *“computer programmed to use a voice recognition computer software package trained to the voice of the call assistant”*

Neither party expressly proposes a construction for “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant.” *See* Pet. 6-7; PO Resp. 8-12; Reply 2. In

the dispute over the teachings of the asserted prior art references, however, Patent Owner contends, based on the testimony of Mr. Ludwick, that the claimed voice recognition software must be “running on the call assistant’s workstation—e.g., not remotely or virtually running on or from a server or other computer.” PO Resp. 25 (citing Ex. 2010 ¶¶ 59-62).

Mr. Ludwick explains that, because the claim requires the call assistant to speak into a microphone connected to the computer programmed to use a voice recognition computer software package and because of advantages of such an arrangement, the claimed software package must reside on the claimed computer to which the microphone is connected. Ex. 2010 ¶¶ 60-62; *see also* PO Resp. 25.

Claims 1 and 2, however, require the computer “*to use* a voice recognition computer software package” and do not require expressly the voice recognition computer software package to be stored on the computer programmed to use the software package. Patent Owner, based on Mr. Ludwick’s testimony, acknowledges the software package may be stored other than on the call assistant’s computer. PO Resp. 25 (indicating a terminal may be able to transmit a voice signal to be converted to text by a server or other computer located remotely from the call assistant’s computer) (citing Ex. 2010 ¶¶ 63-64). Notably, neither Patent Owner nor Mr. Ludwick addresses sufficiently how a person of ordinary skill in the art would understand the limitation “the computer programmed *to use*” a software package to require the software package to be stored on the computer programmed to use the software package.

Thus, we will not construe “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant” as requiring the software package to be stored on the computer programmed to use the software.

B. Principles of Law

To prevail in challenging claims 1 and 2 of the ’314 patent, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A claim is anticipated if a single prior art reference either expressly or inherently discloses every limitation of the claim. *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 975 (Fed. Cir. 2010). To establish inherent disclosure, the evidence must show that a feature is necessarily described in the reference. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a reference also “must enable one of ordinary skill in the art to make the invention without undue experimentation.” *Impax Labs., Inc. v. Aventis Pharm., Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008). To determine whether “undue experimentation” is required, various factors are examined, including (1) the quantity of experimentation; (2) the amount of direction or guidance present; (3) the presence or absence of working examples; (4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); *see also Impax Labs.*, 545 F.3d at 1314-15 (indicating the Wands factors

should be applied to a determination whether a prior art reference is enabled).

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time of the invention to a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). The level of ordinary skill in the art is reflected by the prior art of record. See *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

C. Patent Owner's Motion to Exclude Testimony by Mr. Occhiogrosso

Patent Owner seeks to exclude the testimony of Mr. Benedict Occhiogrosso (Exs. 1014, 1053, 2006, 2007, and 2016) on the theory that he is not qualified as an expert under Federal Rule of Evidence 702 (“FRE 702”).^{5,6} PO Mot. to Exc. Occhiogrosso; PO Resp. 4-8. FRE 702

⁵ Patent Owner also seeks to exclude Mr. Occhiogrosso’s testimony under 37 C.F.R. § 42.65. PO Mot. to Exc. Occhiogrosso 1. Rule 42.65, however, addresses (a) the weight given to expert testimony that does not disclose underlying facts or data on which the opinion is based, (b) the showing required if a party seeks to rely on a technical test or data from such a test,

provides that a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if (a) the expert's knowledge will help the trier of fact to understand the evidence or to determine a fact in issue, (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles and methods, and (d) the witness has applied the principles and methods reliably to the facts of the case.

Testimony on the issue of unpatentability proffered by a witness who is not “qualified in the pertinent art” generally is not admissible under FRE 702. *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008). In determining who is qualified in the pertinent art under FRE 702, we need not find a complete overlap between the witness’s technical qualifications and the problem confronting the inventor or the field of endeavor. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1372–73 (Fed. Cir. 2010) (upholding admission of the testimony of an expert who admittedly lacked expertise in the design of the patented invention, but had experience with materials selected for use in the invention); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 Fed. App’x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who “had experience relevant to the field of the

and (c) the exclusion of expert testimony on United States patent law or patent examination practice. As such, Rule 42.65 does not apply to a determination whether to exclude Mr. Occhiogrosso’s testimony.

⁶ With some enumerated exceptions, the Federal Rules of Evidence apply to an *inter partes* review. 37 C.F.R. § 42.62.

invention,” despite admission that he was not a person of ordinary skill in the art).

Patent Owner contends that, to qualify as an expert under FRE 702, Mr. Occhiogrosso must be a person of ordinary skill in the art, and that Mr. Occhiogrosso is not a person of ordinary skill in the art because “he is an information technology (“IT”) generalist” and does not have “any specific experience in the context of [telecommunications relay systems] for the deal and the HOH [hear of hearing].” PO Mot. to Exc. Occhiogrosso 5; *see also id.* at 1-4 (discussing the definition of a person of ordinary skill in the art); 5-7 (discussing Mr. Occhiogrosso’s experience with respect to these factors). Petitioner responds that Patent Owner’s definition of the level of ordinary skill in the art conflates a requirement for skill in the relevant technical art (“telecommunications systems [having] voice-to-text transcription”) with skill in one particular commercial sector that applies that technical art (“telecommunications services *specifically* designed for the deaf or hard of hearing”). Pet. Opp. to Mots. Exc. 1, 3-4.

Patent Owner’s arguments are unpersuasive at the outset because, to testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather “qualified in the pertinent art.” *Sundance*, 550 F.3d at 1363-64; *SEB*, 594 F.3d at 1372-73; *Mytee*, 439 Fed. App’x at 886-87. Patent Owner’s arguments are also unpersuasive because they attempt to constrict the “pertinent art,” i.e., the pertinent technology, to a particular subset of individuals who use the pertinent technology, rather than the pertinent technology itself. *See* Pet. Opp. to Mots. to Exc. 4-5 (arguing

that the problems in the pertinent art are not “uniquely related” to the deaf and hard-of-hearing).

Moreover, Patent Owner indicates elsewhere that the relevant field of art is telecommunication technologies. *See* PO Resp. 18 n.2 (Patent Owner indicating its declarant “Mr. Ludwick indisputably is [a person of ordinary skill in the art] in telecommunications technologies, which is the relevant field of art” to opine on speech recognition software for use in telecommunication relay service settings). Petitioner similarly indicates the relevant field is telecommunication technologies. Pet. Opp. to Mots. to Exc. 6 (“Mr. Occhiogrosso’s qualifications should be analyzed with respect to the pertinent art of telecommunication technologies in which an intermediary facilitates voice-to-text transcription.”).

We agree that the pertinent art is telecommunication technologies. The ’314 patent states that the “present invention relates to the general field of telephone communications.” Ex. 1021, 1:14-15. The ’314 patent focuses on a particular application of that technology: people who need assistance in using telecommunications devices. *Id.* at 1:15-2:9 (describing various prior art assistive technologies). The ’314 patent also summarizes the invention as the use of a speech recognition computer program trained to the voice of the call assistant to translate promptly the words spoken by an intermediary call assistant into a “high speed digital communication message [that] is then transmitted electronically promptly by telephone to a visual display accessible to the” hearing-assisted user. *Id.* at 2:41–52.

The qualifications of Mr. Occhiogrosso, as summarized in his curriculum vitae (Ex. 1015), qualify him to give expert testimony on the

subject of telecommunication technologies. He possesses a Bachelor of Science in Electrical Engineering and a Master of Science in Electrical Engineering. Ex. 1015, 2. Mr. Occhiogrosso testifies that he has more than thirty years of experience in the field of telecommunications and information technology, and he has planned, designed, implemented, and managed large scale projects involving wired and wireless communication systems, including transmission of voice and data. Ex. 1014 ¶ 7; *see also* Ex. 1015, 2-6 (detailing Mr. Occhiogrosso's enterprise consulting engagements, research and development, and wireless experience).

Moreover, to the extent Mr. Occhiogrosso is more familiar with general telecommunications technology and less familiar with voice-to-text or its application to the deaf or hearing-impaired, or to the extent that Mr. Occhiogrosso's testimony is inconsistent or unsupported, we weigh Mr. Occhiogrosso's testimony accordingly, taking into account the extent of his expertise in these areas. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”).

Patent Owner also contends that Mr. Occhiogrosso's testimony fails to identify the level of skill in the art in his declaration (Ex. 1014), fails to give any consideration to what one of ordinary skill in the art would have known or not known, is unsupported and unreliable, and does not consider

secondary considerations. PO Mot. to Exc. Occhiogrosso 8-9; PO Resp. 7-8; PO Reply to Opp. to Mots. to Exc. 3. Petitioner counters that Mr. Occhiogrosso “consistently applied his definition of a [person of ordinary skill in the art] throughout his testimony” and, in a supplemental declaration, Mr. Occhiogrosso “made explicit the level of ordinary skill he applied” in Exhibit 1014. Pet. Opp. to Mots. to Exc. 11-12.

Patent Owner’s argument goes more to the weight we should accord Mr. Occhiogrosso’s testimony, rather than its admissibility. It is within our discretion to assign the appropriate weight to the testimony offered by Mr. Occhiogrosso. *See, e.g., Yorkey*, 601 F.3d at 1284. Moreover, Mr. Occhiogrosso provided a supplemental declaration identifying the level of skill in the art and confirming his opinion presented in the earlier declaration (Ex. 1014) in view of the level of skill in the art. *See* Ex. 1053 ¶¶ 12-17, 19. Mr. Occhiogrosso testimony also confirmed his legal understanding of anticipation and obviousness, including secondary considerations. *See* Ex. 1053 ¶¶ 20-26.

Under the totality of these circumstances, we decline to exclude the testimony of Mr. Occhiogrosso. Accordingly, Patent Owner’s Motion to Exclude to Mr. Occhiogrosso’s testimony (Paper 45) is *denied*.

D. Anticipation by Ryan

Petitioner asserts that claims 1 and 2 of the ’314 patent are unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan. Pet. 11, 13-19. Patent Owner challenges Petitioner’s assertion. PO Resp. 15-37.

1. Summary of Ryan

Ryan discloses a telecommunications relay system with a relay interface for communicating between a standard telephone set and a TDD for a hearing impaired person. Ex. 1004, Abstract. Figure 1 of Ryan is a diagram of the telecommunications relay system and is set forth below:

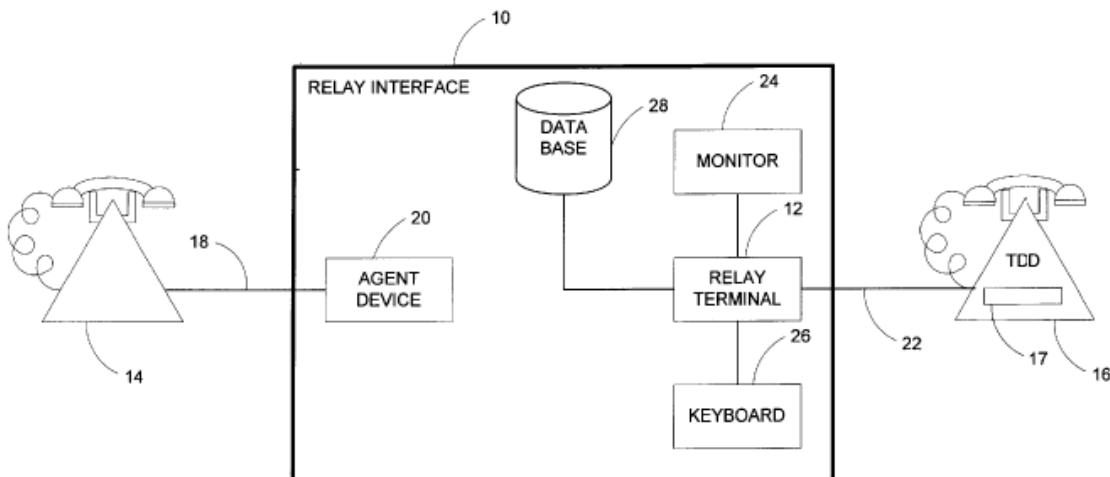


FIG. 1

As shown in Figure 1, Ryan's telecommunications relay interface 10 includes operator/relay terminal 12 and couples standard telephone 14 with TDD 16. Ex. 1004, 3:34-35, 43-51. An operator or relay agent typically is responsible for manipulating relay terminal 12 to relay messages between telephone 14 and TDD 16. Ryan indicates, however, that speech recognition software could be used to automate the relay function so that an operator or relay agent would not be required. *Id.* at 4:19-24. Ryan specifically describes using speech recognition software at agent device 20 to interpret a voice message from a caller at telephone 14 and convert the message from a voice format to a data format. *Id.* at 4:24-27. Ryan further indicates:

If the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message.

Id. at 4:33-38.

2. *Ryan Is Prior Art*

Ryan issued on September 15, 1998, with a filing date of July 3, 1996, and is entitled to the benefit of the filing date of its parent application, October 18, 1994. Ex. 1004. Thus, Petitioner contends Ryan is prior art to the claims of the '314 patent under 35 U.S.C. § 102(e). Pet. 11. Patent Owner contends that Ryan is not prior art under § 102(e) because it is not enabled. PO Resp. 15-24.

Under § 102(e), Ryan must be enabled prior to the date of invention of the '314 patent. *See* 35 U.S.C. § 102 (Section 102 indicates that “[a] person shall be entitled to a patent unless— . . . (e) the invention was described in . . . (2) a patent granted on an application for patent . . . filed in the United States before the invention by the applicant for patent.”). The '314 patent issued from an application filed on April 8, 1999, which was a continuation of an application filed on September 8, 1997. Accordingly, the earliest possible date of invention of the claims of the '314 patent is presumed to be September 8, 1997.

As an initial matter, we address Patent Owner's assertion of an earlier date of invention for the claims—June 23, 1997. *See* PO Resp. 23-24. Patent Owner relies on a journal entry from August 5, 1997 indicating “the [call assistant] repeats what voice person says” (Ex. 2011 ¶¶ 3-4) and two

declarations regarding the purchase of commercial software (i.e., IBM ViaVoice). Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9. The declarations indicate that IBM ViaVoice was released in August 1997 and the patent application was filed shortly thereafter on September 8, 1997. Ex. 2012 ¶¶ 5-10; Ex. 2013 ¶¶ 7-9.

Patent Owner’s earliest proffered evidence dates back only to August 5, 1997, not to June 23, 1997. Ex. 2011 ¶¶ 3-4. Moreover, Patent Owner has not attempted to show diligence in reduction to practice.⁷ Thus, we do not find that Patent Owner has established a date of invention for the claims prior to September 8, 1997.

We now turn to whether the portion of Ryan relied on by Petitioner as disclosing the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream” was enabled prior to the relevant time. Initially, there is a presumption that a prior art reference is enabled. *See In re Antor Media*, 689 F.3d 1282, 1287–1288 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003).

The parties agree that commercial voice recognition software available from Dragon Systems, called “Naturally Speaking” (and

⁷ *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996) (holding that the first to conceive “may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act” (internal citation and quotations omitted)).

sometimes referred to as “Dragon Naturally Speaking”), enabled “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 23 (citing Exs. 2011, 2012, and 2013); Reply 4. There is no dispute that Dragon Naturally Speaking was available to the public on June 23, 1997. PO Resp. 23 (citing Exs. 2011, 2012, and 2013); Reply 4. Further, the ’314 patent and its parent indicate Dragon Naturally Speaking was available commercially. Ex. 1021, 5:50-57 (stating “a recently available commercial voice recognition package from Dragon Systems, known as ‘Naturally Speaking,’ is a voice recognition software which will . . . translate to digital text spoken words of a user at the normal speeds of human communication in conversation when operating on conventional modern personal computers”); *see also* Ex. 1021, 5:50-57 (stating the same).

Weighing the *Wands* factors, we determine that at least the state of the prior art (including commercial availability of Dragon Naturally Speaking), the breadth of the claims (“a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream”), and the predictability of the telecommunications art support a finding that Ryan is enabled as of June 23, 1997. *See Wands*, 858 F.2d at 737.

Patent Owner argues that Ryan does not anticipate the claims of the ’314 patent under § 102(e) because Ryan’s disclosure of speech recognition software (Ex. 1004, 4:19-38) was not enabled in 1994, the earliest effective

filings date claimed by Ryan. PO Resp. 15-22. We do not agree with Patent Owner that, to anticipate under 35 U.S.C. §102(e), a reference must be enabled as of the date of the reference’s earliest claimed priority date. *Id.* at 15-22. First, “[e]nabling of an anticipatory reference may be demonstrated by a later reference.” *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1379 (Fed. Cir. 2001). An anticipatory reference under § 102(b) is enabled if it can be shown that the claimed subject matter was in possession of the public before the critical date of the challenged patent. *Id.* Based on well-established law that to anticipate under § 102(b) a reference must be enabled by the critical date, not by the publication date of the reference asserted as prior art, we conclude that to anticipate under § 102(e) a reference must be enabled by the date of invention of the challenged claim. As determined previously, Ryan is enabled by commercial software available to the public on June 23, 1997, which precedes the earliest date of invention for the ’314 patent. Thus, Ryan is prior art to the claims of the ’314 patent. See 35 U.S.C. 102(e) (precluding a patent if the invention of the patent was described in “a patent granted on an application for patent . . . filed in the United States before the invention”).

Second, we are not persuaded by Patent Owner’s arguments citing cases concerning (i) the written description requirement of 35 U.S.C. § 112, *In re Wertheim*, 646 F.2d 527 (CCPA 1981), and (ii) the problem of “secret prior art,” *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). Patent law now recognizes “secret prior art” in section 102(e), and the Federal Circuit has observed that “[e]ven the ‘secret prior art’ of § 102(e) is ultimately public in the form of an issued patent before it attains prior art

status.” *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1402 (Fed. Cir. 1997). Further, it is well-settled that the enablement requirement is a separate requirement from the written description requirement. *See, e.g.*, *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). Moreover, “[t]he enablement requirement is often more indulgent than the written description requirement. The specification need not teach explicitly those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without ‘undue experimentation.’” *Amgen*, 314 F.3d at 1334.

Finally, we are not persuaded by Mr. Ludwick’s testimony addressing the inability of technology in 1994 to implement speech recognition technology that kept up with conversation. Resp. 19 (citing Ex. 2010 ¶¶ 25-28). For the reasons discussed previously, Ryan does not need to be enabled as of 1994 to qualify as prior art to the claims of the ’314 patent. Further, we note the language used to describe transcription speeds used in the written description of the ’314 patent—transcription speeds “which will translate to digital text spoken words of a user at the normal speeds of human communication in conversation” (Ex. 1021, 5:54-56)—is not included in claims, which merely recite “the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.”

For these reasons, Ryan need not be enabled as of 1994 to qualify as prior art to claims 1 and 2 of the '314 patent. We have determined that Ryan was enabled as of June 1997 and, therefore, qualifies as prior art to claims 1 and 2.

3. Analysis of Claims 1 and 2

To support its contention that Ryan anticipates claims 1 and 2, Petitioner relies on analysis as to how each claim limitation is disclosed by Ryan and also relies on declaration testimony by Mr. Occhiogrosso. Pet. 11, 13-19 (citing Ex. 1014). Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 24-37 (citing Exs. 2010-2013). Having considered the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that Ryan discloses, either expressly or inherently, each limitation of claims 1 and 2, and so anticipates claims 1 and 2, for the reasons set forth below.

In particular, Petitioner acknowledges that Ryan does not disclose expressly "a speaker" or "a digital computer connected to a microphone," as recited in claims 1 and 2. Pet. 14-15, 17-18. Petitioner, however, asserts that Ryan inherently discloses those components. Pet. 14-15 (citing Ex. 1014 ¶¶ 28-30), 17-18 (citing Ex. 1014 ¶¶ 28-30). We credit Mr. Occhiogrosso's explanation that a speaker necessarily must be present in Ryan's relay system for a relay agent to "listen to the caller," as Ryan expressly discloses. Ex. 1014 ¶ 30 (citing Ex. 1004, 4, 1. 36). Also, we credit Mr. Occhiogrosso's testimony that the recited "a digital computer

connected to a microphone” necessarily must be present in Ryan’s relay system for it to process the voice of the relay operator, and a digital computer necessarily must be present for Ryan’s relay system to use speech recognition software. Ex. 1014 ¶¶ 28-29 (citing Ex. 1004, 4:14, 33). Thus, we find that Ryan inherently discloses the recited “a digital computer connected to a microphone” and “a speaker.”

We also find that Ryan expressly discloses the recited modem in describing “a personal computer with communications software and a modem.” Ex. 1004, 1:29-31; *see also* Pet. 16, 19 (citing Ex. 1004, 1:29-31, 53-59; 7:66-8:10).

A central dispute between the parties is whether Ryan discloses “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in claims 1 and 2. *Compare* Pet. 15-16, 18-19 with PO Resp. 24-37.

Petitioner contends this limitation is disclosed by Ryan’s relay interface system in which a relay agent is responsible for relaying messages between phone 14 and TDD 16. Pet. 18 (citing Ex. 1004, 4:19-38). We agree with Petitioner that Ryan’s description of “speech recognition software . . . employed at [relay agent] device 20 [and] specifically designed to recognize the voice of particular relay agents” discloses the recited “digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant.” *See* Pet. 15 (citing Ex. 1004, 4:24-34). We also agree that Ryan’s indication that “if the software is specifically designed to recognize the voice of particular relay agents, the

accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message" discloses "the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream." *See* Pet. 15 (citing Ex. 1004, 4:33-38) (emphasis omitted).

Patent Owner responds with several arguments that Ryan does not disclose the recited digital computer, none of which we find persuasive. *See* PO Resp. 24-37. Undergirding some of Patent Owner's contentions is the state of the art of voice recognition technology in 1994. *See* PO Resp. 26 ("[S]peech recognition was not actually used at all in the [telecommunications relay service] field in 1994"); PO Resp. 36-37 (asserting Ryan must be read narrowly in view of the state of the art of telecommunications relay service art in 1994); Ex. 2010 ¶¶ 24-30 (Mr. Ludwick submitting that Ryan does not contain an enabling disclosure of the recited digital computer based on technology available in 1994). The state of the art of the relevant technology in 1994, however, has limited probative value. Rather, the state of the art of the relevant technology in September 1997, the date of invention of the subject matter claimed in the '314 patent, is of greater significance. *See* 35 U.S.C. § 102(e) (finding subject matter unpatentable if the "the invention was described in [a reference] before the invention") (emphasis added). As noted previously, there is no dispute about the state of voice recognition technology as of June 23, 1997, when Dragon Naturally Speaking was released.

Patent Owner contends that Ryan does not disclose the recited digital computer because the claims require voice recognition software to be running or stored on the call assistant's workstation. PO Resp. 25. As discussed above, we disagree with Patent Owner's implicit construction of "the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream." For the reasons noted above, we do not construe the limitation to require the voice recognition computer software package to be stored on the computer programmed to use the software package. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, contrary to Patent Owner's contentions, we find Ryan discloses voice recognition software at the location of the call assistant. Ryan indicates "speech recognition software could be employed at device 20," which is included in Ryan's telecommunications relay interface system 10 used by the relay agent. Ex. 1004, 4:24-26; *see also id.* Fig. 1 (showing agent device 20 within telecommunications relay interface system 10). Ryan goes on to state "[i]f the software is specifically designed to recognize the voice of particular relay agents, the accuracy of the relay service may be improved by having one of these agents listen to the caller and repeat the voice message into a terminal adapted to convert the agent's voice message into a data message." *Id.* at 4:33-38. We do not agree with Patent Owner's assertion that, because Ryan indicates "a terminal" (rather than expressly identifying a particular component shown in Figure 1),

Ryan's voice recognition software could be located other than on the agent's workstation.

Also, Patent Owner contends that Ryan does not disclose the recited "voice recognition software trained to the voice of the call assistant" because Ryan's software is not trained as required by Patent Owner's interpretation of the required training. Rather, according to Patent Owner, Ryan discloses voice recognition software that is "designed," which means the software is designed in advance of implementation at the source code level and, therefore, the software is not trained. PO Resp. 25-26.

For the reasons noted previously, we do not agree the recited trained voice recognition software precludes training during software design, which Patent Owner acknowledges is disclosed by Ryan. *Id.* at 26-27. Thus, we do not agree with Patent Owner's argument because it is not commensurate in scope with the claims.

Moreover, Patent Owner relies on Mr. Ludwick's testimony asserting Ryan does not teach "voice recognition computer software trained to the voice of the call assistant." PO Resp. 25-27 (citing Ex. 2010 ¶¶ 21-22). We do not find Mr. Ludwick's testimony that Ryan's voice recognition software is "designed to recognize the voice of particular relay agents" to be persuasive because Mr. Ludwick grounded his testimony in the state of the art in 1994, when the date of invention is 1997. *See* Ex. 2010 ¶ 21 (referring to the telecommunications relay service field in 1994), ¶ 22 (noting the needed technology "did not then exist").

Next, Patent Owner, relying on Mr. Ludwick's testimony, contends that Ryan does not disclose the recited "voice recognition software trained to

the voice of the call assistant,” because Ryan’s “voice recognition software is written specifically to recognize the voices of a collection or group of people, rather than a particular, individual call assistant.” PO Resp. 27-28 (citing Ex. 2010 ¶ 22).

For the reasons noted previously, we do not agree that the claims are limited to voice recognition software trained to one and only one call assistant. Thus, we do not agree with Patent Owner’s argument because it is not commensurate in scope with the claims.

Moreover, we are not persuaded by Patent Owner that a person of ordinary skill in the art would interpret Ryan as only disclosing software written specifically for a group of people (PO Resp. 28). Patent Owner’s argument is unpersuasive because it relies on the level of ordinary skill in the art as reflected in a prior art patent filed in 1994, when the invention date of the challenged claims is September 1997. *See* PO Resp. 28 (citing Ex. 2008, U.S. Patent No. 5,553,119 (“McAllister”) filed on July 7, 1994).

Patent Owner also contends that, at most, Ryan is ambiguous as to the disclosure of a call agent translating the words spoken in voice by the call assistant into a digital text stream, and so does not anticipate claims 1 and 2. PO Resp. 29-37. Patent Owner contends, based on the goals of Ryan to correct errors before displaying words and the context of the passage, that Ryan discloses a relay agent using “revoicing” as an error correction mechanism for individual, unrecognized letters of a word. PO Resp. 32-35; *see* Ex. 1004, Abstract, 4:19-38.

Ryan’s technology is intended to “overcome[] the problem associated with existing telecommunications relay services by providing a system and

method for correcting mistakes before the message is displayed at the end user’s TDD” (i.e., telecommunications device for the deaf). Ex. 1004, 2:35-38 (“Summary of the Invention”). In the above-quoted passage, Ryan describes ways to do so using speech recognition software. One way is automating the relay function so as to eliminate the need for a human operator. *Id.* at 4:19-24. To do so, Ryan describes using speech recognition software to convert the voice message from a caller to text “while providing an error correction feature for words not recognized by the software.” *Id.* at 4:24-28. Ryan further describes the error correction feature as having two forms—phonetic spelling of the unrecognized word by the speech recognition software or prompting the caller to spell the unrecognized word. *Id.* at 4:29-33. Ryan describes, in the passage, another way to improve the accuracy of a relay system before the text is displayed at the TDD—if the speech recognition software is designed specifically to recognize the voice of particular relay agents, a relay agent “listen[s] to the caller and repeat[s] the voice message into a terminal adapted to convert the agent’s voice message into a data message.” *Id.* at 4:33-38.

In contrast to Ryan’s description of the error correction by the *caller* spelling letters of an unrecognized word, here Ryan unambiguously describes a relay agent repeating the voice message of the caller and having speech recognition software, designed specifically to recognize the voice of the relay agent, convert the agent’s voice message into a data message. Thus, we are not persuaded that Ryan is ambiguous as to its disclosure of translating the words spoken by the call assistant, and we are not persuaded that Ryan discloses only letters (rather than words) being translated.

For these reasons, we find Ryan discloses the recited “computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” recited in claims 1 and 2.

E. Obviousness over Wycherley and Yamamoto

Petitioner asserts that claims 1 and 2 of the ’314 patent are unpatentable under 35 U.S.C. § 103 for obviousness over Wycherley and Yamamoto. Pet. 27-30. Petitioner asserts both Wycherley and Yamamoto qualify as prior art to the ’314 patent under 35 U.S.C. § 102(b). Pet. 8, 11-12. Patent Owner challenges Petitioner’s contentions regarding Wycherley and Yamamoto. PO Resp. 37-52.

1. Yamamoto Is a Printed Publication under 35 U.S.C. § 102(b)

Petitioner asserts that Yamamoto was published in March 1996 and, therefore, qualifies under 35 U.S.C. § 102(b) as prior art to the ’314 patent. Pet. 11. Patent Owner contends that Yamamoto is not prior art because Petitioner has not provided sufficient evidence to show that Yamamoto was a publicly accessible printed publication more than one year prior to September 8, 1997, the earliest effective filing date claimed by the ’314 patent. Mot. to Exc. Yamamoto; Paper 67.

a. Evidence of Public Accessibility

We begin with some procedural background to provide context for the evidence relied on by Petitioner. In April 2014, approximately one month after our Institution Decision, Petitioner served on Patent Owner supplemental evidence in response to Patent Owner’s objections regarding

the publication date of Yamamoto and, hence, its prior art status. *See* Paper 22, 4; *see also* Paper 63, 3–4 (detailing procedural history). On May 30, 2014, Patent Owner filed its Patent Owner Response, which did not challenge the sufficiency of Petitioner’s evidence demonstrating the public accessibility of Yamamoto, or otherwise contend that Yamamoto is not prior art to the ’314 patent under 35 U.S.C. § 102(b). Paper 30; *see* Paper 63, 4. Rather, Patent Owner waited an additional three months, until August 26, 2014, in its Motion to Exclude Evidence, to challenge the sufficiency of Petitioner’s evidence regarding the public accessibility of Yamamoto. Paper 46; *see* Paper 63, 4.

Petitioner then moved to submit supplemental information under 37 C.F.R. § 123(b), including a transcript of a videotaped interview with Mr. Seiichi Yamamoto, the first named author of the Yamamoto reference. Paper 52; Ex. 2017 (Videoconference Deposition of Seiichi Yamamoto, Aug. 20, 2014) (“Yamamoto transcript”). We granted the motion, and permitted the parties to file supplemental briefing regarding the public accessibility of Yamamoto, including the admissibility of the Yamamoto transcript. *See* Paper 63, 10–11; Paper 65 (Petitioner’s Additional Briefing); Paper 67 (Patent Owner’s Response to Additional Briefing); Paper 68 (Petitioner’s Reply to Patent Owner’s Response to Additional Briefing).

We now turn to the evidence regarding the public accessibility of Yamamoto. The first page of Yamamoto indicates it was a paper presented at the Proceedings of the Acoustical Society of Japan Spring 1996 Research Presentation Conference in March 1996. Ex. 1006. In support of its contention that Yamamoto was publicly accessible in March 1996, Petitioner

relies primarily on the transcript of the interview with Mr. Yamamoto, in which the parties questioned Mr. Yamamoto regarding the presentation and distribution of the paper at the conference. *See Ex. 2017.* This interview was conducted in connection with the related district court proceeding, *Ultratec, Inc. v. Sorenson Communications, Inc.*, No. 13-CV-00346 (W.D. Wis.). *See Ex. 2017, 1.*

Pursuant to stipulation of the parties, both parties had the opportunity to ask Mr. Yamamoto questions at the interview, an interpreter was present to translate Mr. Yamamoto's testimony, and a court reporter made a stenographic record of the English portion of the interview. *See Ex. 1062* (Stipulation Regarding Seiichi Yamamoto) ¶¶ 1, 3. The parties also stipulated that the stenographic record of the interview would be treated as sworn deposition testimony in the district court proceeding and, “[w]ith respect to other proceedings, the stenographic record will be treated as a sworn deposition taken in Western District of Wisconsin Case Nos. 13-cv-346 and 14-cv-66 at which both parties appeared and had the opportunity to question the witness.” *Id.* ¶ 5.

Patent Owner contends the Yamamoto transcript should be excluded as evidence because the parties did not agree it could be used in this proceeding. Paper 67, 5–6. To the contrary, the parties' stipulation provides that “[t]he use and admissibility of the stenographic record in any other proceedings will be governed by the rules in effect with respect to such other proceeding.” Ex. 1062 ¶ 5. Thus, the parties agreed that the Yamamoto transcript may be used in this *inter partes* review to the extent permitted by our rules.

Patent Owner argues that Board rules require exclusion of the Yamamoto transcript because Mr. Yamamoto was not sworn and did not sign the transcript, and because Petitioner failed to provide advance notice to the Board of its intent to take a foreign language deposition. Paper 67, 6 (citing 37 C.F.R. § 42.53(a), (e), (f)). The Yamamoto transcript, however, does not run afoul of the rules cited by Patent Owner because Petitioner seeks to admit the transcript as a deposition taken in the district court proceeding, not as deposition testimony taken in this *inter partes* review proceeding. See Paper 68, 1. Moreover, the parties stipulated that the Yamamoto transcript would be treated as sworn deposition testimony taken in the district court. Ex. 1062 ¶ 5.

Patent Owner further contends that the Yamamoto transcript constitutes inadmissible hearsay under the Federal Rules of Evidence, which apply to this proceeding. Paper 67, 7 (citing 37 C.F.R. § 42.62(a); Fed. R. Evid. 801, 802). Petitioner responds that the Yamamoto transcript is admissible as an exception to the rule against hearsay. Paper 68, 1–3. We agree with Petitioner.

First, Rule 804(b)(1) allows the use of former testimony of an unavailable witness if the testimony “(A) was given as a witness at a trial, hearing, or lawful deposition, whether given during the current proceeding or a different one; and (B) is now offered against a party who had . . . an opportunity and similar motive to develop it by direct, cross-, or redirect examination.” Fed. R. Evid. 804(b)(1). By stipulation of the parties, the interview of Mr. Yamamoto was treated as a lawful deposition in the district court proceeding. Ex. 1062 ¶ 5. Also, both parties had the opportunity to

develop Mr. Yamamoto’s testimony and had the same motive as in this proceeding—to determine whether Yamamoto was publicly accessible. *See* Ex. 1062 ¶ 1; Ex. 2017. As we determined previously, Petitioner reasonably concluded, based on Patent Owner’s Response (Paper 30) filed on May 30, 2014, that Patent Owner no longer was challenging the prior art status of the Yamamoto reference, and only became aware of Patent Owner’s continued challenge when Patent Owner improperly challenged the sufficiency of the Yamamoto reference in its Motion to Exclude filed on August 26, 2014, well after the time for taking testimony in this proceeding. Paper 63, 7. At that point, Petitioner had no reasonable means for obtaining Mr. Yamamoto’s testimony for this proceeding. *See* Paper 48, 3 (Petitioner’s Motion for Leave to File Supplemental Evidence Regarding Yamamoto). We determine, therefore, that Mr. Yamamoto was unavailable as a witness, *see* Fed. R. Evid. 804(a), and the Yamamoto transcript is admissible under Rule 804(b)(1).⁸

In addition, the Yamamoto transcript is admissible under Rule 807. First, Mr. Yamamoto’s videotaped interview, which was stipulated to be sworn deposition testimony in the district court proceeding, and in which Mr. Yamamoto was subject to cross-examination, “has equivalent circumstantial guarantees of trustworthiness.” Fed. R. Evid. 807(a)(1). Also, Petitioner offers the Yamamoto transcript as evidence of a material

⁸ We note that the parties stipulated, for purposes of the district court proceeding, that Mr. Yamamoto’s testimony would be deemed former testimony under Rule 804(b) and Mr. Yamamoto was deemed unavailable under Rule 804(a).

fact—the public availability of a prior art reference—and it is more probative on that point than any other evidence Petitioner can obtain through reasonable efforts because Mr. Yamamoto co-authored the Yamamoto reference and presented it at a conference of the Acoustical Society of Japan. *See* Fed. R. Evid. 807(a)(2), (3). Finally, admitting the Yamamoto transcript is in the interests of justice, as it provides as complete a record as possible regarding the public accessibility of the Yamamoto reference. *See* Fed. R. Evid. 807(a)(4); *see also* Paper 63, 8 (determining that submission of the Yamamoto transcript is in the interests of justice).

Finally, we are not persuaded by Patent Owner’s argument that the Yamamoto transcript should be excluded under Federal Rules of Evidence 602, 603, and 604. Mr. Yamamoto’s testimony indicates that he was present at the conference at which his paper was presented and had personal knowledge of the distribution of the paper, as required by Rule 602. *See* Ex. 2017. As for Rules 603 and 604, requiring an oath or affirmation by a witness and interpreter, respectively, they do not require exclusion of the Yamamoto transcript because the parties stipulated that it would be treated as sworn deposition testimony. *See* Ex. 1062 ¶ 5.

b. Yamamoto Was Publicly Accessible in March 1996

Under 35 U.S.C. § 102(b), a person is not entitled to a patent if “the invention was . . . described in a printed publication . . . more than one year prior to the date of the application for patent.” “The statutory phrase ‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public

interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was ‘published.’” *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). The determination of whether a reference qualifies as a printed publication “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004).

In the present case, based on the circumstances surrounding the presentation and dissemination of the Yamamoto reference, we conclude that Yamamoto was publicly accessible in March 1996, more than one year before September 8, 1997, the earliest effective filing date of the claims of the ’314 patent. As indicated on the first page of the reference, the Yamamoto reference was presented at the March 1996 Research Presentation Conference of the Acoustical Society of Japan. Ex. 1006, 1. Mr. Yamamoto’s testimony, which we find credible, confirms that he gave an oral presentation of the paper at Special Session A of the conference on March 26, 1996. Ex. 2017, 6:8-23, 13:23-14:3. According to Mr. Yamamoto’s estimate, 100 to 150 people attended his presentation of the paper. *Id.* at 13:23–14:3.

The Acoustical Society created a book containing all the papers presented at the conference, including the Yamamoto paper. *Id.* at 8:12-23, 12:24–13:10, 15:18–19. Conference attendees were able to purchase a copy of the book at the time of registration. *Id.* at 13:8-10, 14:17-21. Beginning on the first day of the conference, copies of the book were “piled up on the

registration desk for purchase, for anyone who wished to purchase.” *Id.* at 16:19–23. According to Mr. Yamamoto, many of his friends who attended the conference purchased a copy of the book. *Id.* at 9:18–10:2, 15:11–17. He also made the paper available to anyone who asked for a copy, and he recalls providing copies to subordinates of Mr. Fujioka, his co-author, though he does not recall the precise timing. *Id.* at 14:8–13, 16:6–14.

The facts of this case are similar to those in *MIT v. AB Fortia*, 774 F.2d 1104 (Fed. Cir. 1985). In that case, our reviewing court concluded that a paper that had been presented orally at a conference attended by 50 to 500 interested persons of ordinary skill in the art, and had been disseminated to at least six persons, was a printed publication for prior art purposes. *Id.* at 1109. Similarly, Mr. Yamamoto orally presented his paper to 100 to 150 persons of ordinary skill in the art, and many conference attendees received a copy of the book containing the paper. Ex. 2017, 9:18-10:2, 13:23-14:3, 15:11-17.

Patent Owner argues that without a detailed analysis of factors such as the length of time the paper was displayed at a conference, the expertise of its target audience, and the expectations regarding and ease with which the material would be copied, Yamamoto cannot be considered prior art. Paper 67, 7–8 (citing *In re Klopfenstein*, 380 F.3d at 1350). Those factors, however, are relevant when determining the public accessibility of a reference that was displayed at a conference without distribution to the public. *In re Klopfenstein*, 380 F.3d at 1350. In contrast, the Yamamoto reference was included in a book of papers presented at the Acoustical Society conference that was available for purchase by all conference

attendees, and actually was purchased by many attendees. Ex. 2017, 9:18-10:2, 12:24-13:10, 15:11-19.

Patent Owner also contends that the distribution of the Yamamoto reference does not show it was accessible publicly because there is no evidence that it occurred among people in the interested public. Paper 67, 8-9. Although Mr. Yamamoto could not recall if the Acoustical Society of Japan's March 1996 conference was open to non-Society members, Ex. 2017, 7:23-8:11, attendance by at least 100 to 150 Society members is sufficient to show the Yamamoto reference was available to persons interested in the subject matter of the paper, voice recognition applications in communication systems. This case is distinguishable from those cited by Patent Owner, which involve papers posted online for a small, closed group of specialists. *See* Paper 67, 8-9 (citing *SRI Int'l Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1197 (Fed. Cir. 2008); *Samsung Electronics Co. v. Rembrandt Wireless Techs., LP*, 2014 WL 4537478, at *5, IPR2014-00515 (PTAB Sept. 9, 2014)).

For these reasons, based on the facts and circumstances regarding the presentation and dissemination of the Yamamoto reference, we determine that Yamamoto was publicly accessible in March 1996. Yamamoto,

therefore, qualifies as a printed publication that is available as prior art to claims 1 and 2 of the '314 patent.⁹

2. Summary of Wycherley

Wycherley describes a system for a relay service for establishing a telephone call between a hearing person and a hearing-impaired person. Ex. 1002, 1:6-10. To reduce the time a service attendant is involved in such a telephone call, Wycherley's relay system uses text-to-speech processing and, on a limited basis, automatic speech recognition. *Id.* at Abstract.

Wycherley's relay system includes Automatic Speech Recognition (ASR) units, which may be software that is available commercially and trained using a voice template, enabling the voice processor to recognize each word uttered by the speaker in a call. *Id.* at 3:59-60; 4:26-29, 35-56. In the event of excessive translation errors by the automated translation of the hearing person's words, Wycherley's relay system transfers the telephone call to a call attendant, who "may request that the speaker repeat the substance of his or her response" and type the words spoken by the hearing person for transmission to the hearing impaired person's TDD terminal. *Id.* at 5:42-47; *see id.* at 5:1-53.

⁹ Because we conclude that Yamamoto was publicly accessible in March 1996, we need not address Petitioner's argument and evidence regarding public accessibility in May 1996, when Petitioner asserts that the book containing Mr. Yamamoto's paper was received by the Japan Science and Technology Agency. *See* Paper 65, 6.

3. Summary of Yamamoto

Yamamoto describes tests of voice recognition systems. Ex. 1006, 34-36. Along with other examples, Yamamoto describes a test with an operator assistance system for international calling, noting a preliminary step in an operator assistance system for international calling is “voice recognition of an operator repeating the question from the [international calling] user” to increase efficiency. *Id.* at 35, § 3.2.

4. Claims 1 and 2

To support its contentions that claims 1 and 2 would have been obvious over Wycherley and Yamamoto, Petitioner relies on analysis provided with respect to the references and the declaration testimony of Mr. Occhiogrosso. Patent Owner responds, relying on declaration testimony by Mr. Ludwick and others. PO Resp. 24-37 (citing Exs. 2002, 2004, 2005, and 2010). Having considered the parties’ contentions and supporting evidence, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 are unpatentable for obviousness over Wycherley and Yamamoto for the reasons set forth below.

Petitioner relies on Wycherley as teaching or suggesting the speaker, microphone, and modem recited in claims 1 and 2. *See* Pet. 28; *id.* at 20-26. Petitioner relies on a combination of Wycherley and Yamamoto for teaching or suggesting “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in

claims 1 and 2. As acknowledged by Petitioner, Wycherley's relay service uses "caller-specific templates to implement speaker-dependent voice recognition directly on the voice of the unimpaired caller." Pet. 27 (citing Ex. 1002, 3:43-4:56).

Petitioner further relies on Wycherley for disclosing a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of *the hearing caller* (rather than trained to the voice of the call assistant, as recited in claims 1 and 2) to translate the words spoken in voice by *the hearing caller* (rather than the call assistant) into a digital text stream. In combination with Wycherley's teaching of a computer programmed for the caller, Petitioner relies on Yamamoto's description of an international call assistance system as teaching the recited call assistant. *See* Pet. 27-30. Specifically, Petitioner relies on Yamamoto's description of an international call assistance system that uses "voice recognition of an operator restating the question from the [international calling] user" as teaching or suggesting "the computer programmed to use a voice recognition computer software package" to translate the voice of the call assistant. *Id.* (emphasis omitted). Thus, Petitioner contends the combination of Wycherley and Yamamoto teaches or suggests "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in claims 1 and 2.

Petitioner, relying on Mr. Occhiogrosso for support, indicates both Wycherley and Yamamoto “involve the use of voice recognition to increase the efficiency of operator assisted telephone services” and contends “it would have been obvious to incorporate *Yamamoto*’s intermediate re-voicing solution into *Wycherley* during situations where, like *Yamamoto*, full automation was not practical.” Pet. 28 (citing Ex. 1014 ¶ 42).

We are persuaded that Wycherley teaches or suggests a speaker, microphone, and modem as recited in claims 1 and 2. *See* Pet. 28; *id.* at 20-26. Wycherley describes an attendant console at which an attendant listens and depicts headsets connected to attendant terminals 220 (Ex. 1002, 1:31-37; Fig. 1), which teaches or suggests a speaker. Wycherley describes that the attendant transmits an oral version of a displayed text message transmitted by a hearing-impaired person (*id.* at 1:27-37), which teaches or suggests a microphone. Wycherley’s Automatic Speech Recognition (ASR) unit includes modem 305 for transmission of digitized words to the TDD user (*id.* at 5:13-14; Fig. 1 (depicting modem 305 in an ASR unit)).

Wycherley further describes, after transmitting to the hearing person an oral version of a displayed text message transmitted by a hearing-impaired person, the attendant at the console “listens to” the hearing person’s oral response. *Id.* at 1:31-37. Thus, we are persuaded that Wycherley teaches or suggests “receiv[ing] voice communications from the telephone system and transmit[ting] those voice communications to the ear of the call assistant.”

We also are persuaded that Petitioner’s proposed combination of Wycherley’s relay service that uses text-to-speech processing and automatic speech recognition with Yamamoto’s voice recognition system used to

provide operator assistance would have taught or suggested to a person of ordinary skill in the art “a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream,” as recited in claims 1 and 2. Thus, we conclude that the teachings of Wycherley and Yamamoto in combination would have suggested the subject matter of claims 1 and 2 as a whole to one of ordinary skill in the art.

We also determine that Petitioner has articulated sufficient reasoning with some rational underpinning to support the legal conclusion that the subject matter of the claims would have been obvious to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto as combined in the manner proposed by Petitioner. *See KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). As noted by Petitioner (Pet. 28), both references disclose using voice recognition systems to increase the efficiency of operator-assisted telephone services. *See* Ex. 1002, 3:43-57; Ex. 1006, 35; *see also* Ex. 1014 ¶ 42. We agree that, at the time of the invention in 1997 and in view of the commercial availability of Dragon Naturally Speaking, it would have been obvious to one skilled in the art to mix and match the teachings of voice recognition systems used in operator-assisted telephone services as a whole to arrive at the claimed invention, because the prior art shows a person of ordinary skill could predictably use known elements according to their established functions and address a common problem—increasing the efficiency of operator assisted telephone services. *See KSR*, 550 U.S. at 416 (stating “[t]he combination of

familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results”), 420 (indicating “[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed”).

We first turn to Patent Owner’s contention that Wycherley and Yamamoto do not teach the subject matter of the claims—particularly, the recited “a digital computer . . . programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream.” PO Resp. 38-44.

Patent Owner contends that Wycherley does not disclose use of voice recognition software that has been trained to the call assistant’s voice, but rather trained to the caller. Patent Owner contends that Yamamoto, rather than facilitating communication between a hearing person and a hearing-impaired person, only provides examples of single word speech recognition and speech recognition software used for database information retrieval tasks. Patent Owner asserts that Yamamoto does not disclose the subject matter of claims 1 and 2 because the claims require “a real-time continuous speech recognition application” and require that the call assistant “repeats . . . everything” the caller says. PO Resp. 40, 42. Patent Owner further indicates Yamamoto is unsuitable to perform the subject matter of the claimed subject matter because Yamamoto describes (i) speech recognition only for database retrieval tasks, (ii) word spotting voice recognition, (iii) using isolated word recognition because it recognizes continuous speech

recognition is not yet commercially viable, and (iv) a continuous voice recognition system as being only able to identify a restricted set of responses.

The pertinent question, however, is whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art in view of the combined references, not whether the references in the asserted combination individually teach the subject matter of claims 1 and 2. 35 U.S.C. § 103(a); *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“the test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art”). Patent Owner’s arguments in large measure amount to attacks on Wycherley and Yamamoto individually, without sufficient consideration of the combination of Wycherley and Yamamoto, an approach we find unpersuasive. Patent Owner’s arguments regarding Yamamoto unduly focus on specific, isolated capabilities described in Yamamoto without addressing what those capabilities, in combination with Wycherley’s relay with voice recognition software trained to the caller’s voice, would have suggested to one of ordinary skill in the art at the time of the invention of the ’314 patent.

Notably, Yamamoto describes “a continuous speech recognition system driven by a context-free grammar” and describes an operator assistance system that uses voice recognition of an operator by repeating words heard from a caller. Ex. 1006, 34-35. Further, Dragon Naturally Speaking was available commercially in June 1997 before the invention in September 1997. Thus, we credit the testimony of Petitioner’s declarant, Mr. Occhiogrosso, that that these features would have been known in

September 1997 to one of ordinary skill in the art in view of the teachings of Wycherley and Yamamoto. Pet. 28; Ex. 1014 ¶ 38-43.

In challenging the combination of Wycherley and Yamamoto, Patent Owner further contends, with support of Mr. Ludwick, that a person of ordinary skill would not have considered Wycherley because (i) continuous speech recognition technology did not exist in 1990, when the application that issued as Wycherley was filed, (ii) some implemented aspects of Wycherley's relay were "disliked by customers," and (iii) Wycherley teaches away from designing a relay employing revoicing. PO Resp. 44-47.

Mr. Ludwick's testimony regarding the state of the art in 1990 has little probative value because the time of the invention is September 1997, as discussed previously. *See* 35 U.S.C. § 103(a) ("A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious *at the time the invention was made* to a person having ordinary skill in the art to which said subject matter pertains.") (emphasis added). Further, as discussed previously, continuous speech recognition software was known by the invention date of claims 1 and 2 in 1997.

Nor do we agree with Patent Owner that Wycherley teaches away from the claimed invention. Patent Owner has not identified where Wycherley criticizes, discredits, or otherwise discourages "us[ing] a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," as recited in claims 1 and 2. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

Moreover, Mr. Ludwick’s statements concerning customer dislike of some features of an implementation of Wycherley’s relay are not persuasive that a person of ordinary skill in the art would not look to Wycherley. First, Patent Owner has not identified the aspect of the implementation of Wycherley’s relay that was less desirable than the claimed invention. Second, even if some aspect of the implementation of Wycherley’s relay was less desirable than the claimed invention, that, in itself, is insufficient to teach away from the purportedly inferior alternative of Wycherley unless the disclosure criticizes, discredits, or otherwise discourages that alternative. *Cf. Fulton*, 391 F.3d at 1200 (“a finding that the prior art as a whole suggests the desirability of a particular combination need not be supported by a finding that the prior art suggests that the combination claimed by the patent applicant is the preferred, or most desirable, combination”). Thus, we are not persuaded that Wycherley teaches away from the subject matter recited in claims 1 and 2.

Further, Patent Owner contends that Yamamoto teaches away because Yamamoto states that “continuous speech and spontaneous speech recognition [was still] not yet commercially viable.” PO Resp. 49 (citing Ex. 1006, 33; Ex. 2010 ¶ 51). We are not persuaded. First, as noted previously, we do not agree that Yamamoto indicates that “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable” in all contexts. Rather, we have determined that Yamamoto teaches particular techniques—word spotting—are useful in contexts in which “recognition of continuous speech and spontaneous speech recognition is not yet commercially viable.” Ex. 1003 at 33. Although this

indicates that such technology is not viable in some situations, this does not indicate the technology is not viable commercially in all contexts.

Moreover, Yamamoto indicates “[v]oice-recognition systems [and] voice-recognition software . . . have arrived at a usable state” (Ex. 1006, 33), which further undercuts Patent Owner’s position that voice recognition technology is not viable commercially. Yamamoto also indicates “a variety of voice recognition application systems in communication networks are also becoming commercially available” (*id.*), which further undercuts Patent Owner’s position that voice recognition technology is not viable commercially. Thus, we do not agree Yamamoto criticizes, discredits, or otherwise discourages—and so teaches away—from the claimed subject matter.

According to Patent Owner, Yamamoto does not teach how to incorporate automatic speech recognition into real time telephone communication between users. PO Resp. 48. Yamamoto, however, need not teach how to incorporate automated speech recognition into real-time telephone communication between users. A determination of obviousness is based not on teaching bodily incorporation of parts from one disclosed system into another, but, as noted previously, on what the combined teachings would have suggested to one with ordinary skill in the art. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *Keller*, 642 F.2d at 425.

Nor are we persuaded that automated speech recognition, enabled by Dragon Naturally Speaking in 1997, would have been uniquely challenging or otherwise beyond the level of ordinarily skilled artisans to combine with Wycherley’s relay system at the time the invention was made in August or

September 1997. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Indeed, the '314 patent describes the use of a voice recognition software, such as Dragon Naturally Speaking, but does not describe the technical details of how to incorporate Dragon Naturally Speaking into the computer terminal containing a copy of the software. *See* Ex. 1021, 5:42-57.

Patent Owner further submits Yamamoto is focused “on operated-assisted database tasks,” Yamamoto is unsuitable for a relay application for a conversation between multiple parties, and that modifying Wycherley so that the relay agent repeats the unimpaired user’s words would render Wycherley unsatisfactory for its intended purpose. PO Resp. 47-48. Patent Owner, relying on its declarant, reasons that the use of a relay agent to repeat the caller’s words “would negate Wycherley’s entire premise of providing a more cost efficient relay service by reducing or eliminating the call assistant’s involvement.” PO Resp. 47 (citing Ex. 2010 ¶ 54). We disagree because we credit Mr. Occhiogrosso’s testimony (Ex. 1053 ¶ 60) that augmenting Wycherley’s call assistants with voice recognition software would increase their efficiency, and thus help achieve Wycherley’s goal of minimizing use of call assistants.

In view of the foregoing, we are persuaded that Petitioner has articulated a sufficient reason to support a conclusion of obviousness in view of Petitioner’s combination of Wycherley and Yamamoto. *See* PO Resp. 44-49.

5. Secondary Considerations

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Notwithstanding what the teachings of the prior art would have suggested to one with ordinary skill in the art at the time of the '314 patent's invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one with ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, and praise. See *Graham*, 383 U.S. at 17; *Leapfrog Enters.*, 485 F.3d at 1162.

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). Thus, to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC*, 57 F.3d at 1580. “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the Patent Owner. *Id.*; see *In re Paulsen*, 30 F.3d at 1482.

Patent Owner alleges “substantial praise for the inventions claimed in [Patent Owner’s] patents, including the ’314 Patent, the long-felt but unresolved need of the deaf and hard of hearing community, the commercial success of the products and services embodying the invention, and the failure of others to provide a relay service or other solution that provided the benefits of the claimed inventions.” PO Resp. 49-51. For support, Patent Owner proffers declarations by Ms. Brenda Battat (Ex. 2004) and Ms. Constance Phelps (Ex. 2005) describing general innovations of Patent Owner’s CapTel Service and its CapTel phone and describing their benefits to the deaf and hard of hearing community. PO Resp. 50-51; *see* Ex. 2004 ¶¶ 18-19, 25-41.

In an attempt to establish the requisite nexus, Patent Owner relies on a declaration of Mr. Ludwick (Ex. 2002) asserting that it “explain[s], on a feature by feature basis, the nexus between those secondary considerations and the claimed design” and “illustrates, in chart form, that the CapTel system and various models of CapTel phones embody the claims of the present invention.” PO Resp. 51.

Patent Owner’s Response contains no substantive arguments. *Id.* at 50-51. Instead, Patent Owner merely lists various common forms of secondary considerations evidence, without exposition. This does not provide sufficient analysis for us to determine whether Patent Owner has provided adequate evidence of secondary considerations and a nexus between any such evidence and the merits of the claimed invention. Thus, Patent Owner’s broad contentions regarding secondary considerations in its Patent Owner Response do not demonstrate nonobviousness.

Moreover, Patent Owner's declarations fail to establish a nexus between the merits of the claimed invention and the evidence of secondary considerations. To show a nexus, Patent Owner relies on Mr. Ludwick's declaration, which describes his visit to CapTel, Inc.'s relay center in Madison, Wisconsin. Ex. 2002 ¶ 47. Mr. Ludwick's chart presents his conclusions based on personal observation that the CapTel Service meets each claim limitation of the '314 patent. Ex. 2002 ¶ 48 (pages 28-30). For example, regarding "a digital computer connected to the microphone, the computer programmed to use a voice recognition computer software package trained to the voice of the call assistant to translate the words spoken in voice by the call assistant into a digital text stream," recited in claims 1 and 2, Mr. Ludwick asserts:

I personally observed that the CapTel Service meets this claim element. I further confirmed this from my own knowledge of CapTel Service. This feature of the CapTel Service relay is present when the Service is used with each of the CapTel Phones and has always been included as part of the CapTel Service.

Ex. 2002 ¶ 48 (page 28).

Because Mr. Ludwick's conclusions are based on personal observations, without sufficient supporting facts or data, his testimony has little probative value. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368 ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations."); *see also* Fed. R. Evid. 702 (providing one may testify in the form of an opinion if the testimony is based on sufficient facts or

data). As such, Mr. Ludwick's conclusory assertions do not provide a sufficient connection between objective evidence and the claimed invention, and so do not establish the requisite nexus between the merits of the claimed invention and the evidence of secondary considerations.

Accordingly, Patent Owner fails to provide sufficient credible evidence to support its allegations of nonobviousness based on secondary considerations. When we balance Petitioner's evidence of obviousness against Patent Owner's asserted objective evidence of nonobviousness, we determine that a preponderance of the evidence supports Petitioner's position that claims 1 and 2 would have been obvious over Wycherley and Yamamoto.

III. CONCLUSION

Petitioner has proven, by a preponderance of the evidence, that claims 1 and 2 of the '314 patent are unpatentable under 35 U.S.C. § 102(e) as anticipated by Ryan and are unpatentable under 35 U.S.C. § 103(a) as obvious over Wycherley and Yamamoto.

Patent Owner's Motions to Exclude the testimony of Mr. Occhiogrosso and the Yamamoto reference are *denied*.

IV. ORDER

Accordingly, it is hereby:

ORDERED that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 2 of U.S. Patent No. 6,233,314 B1 are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude the testimony of Mr. Occhiogrosso (Paper 45) is denied;

FURTHER ORDERED that Patent Owner's Motion to Exclude the Yamamoto reference (Paper 46) is denied; and

FURTHER ORDERED that, because this is a final written decision, the 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.

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