

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KATHERINE G. AUGUST, DANIEL D. LEE and  
MICHAEL POTMESIL

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Appeal 2007-3463  
Application 10/197,470<sup>1</sup>  
Technology Center 2100

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Decided: 29 January 2008

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Before JAMESON LEE, RICHARD TORCZON and SALLY C. MEDLEY,  
*Administrative Patent Judges.*

MEDLEY, *Administrative Patent Judge.*

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed 18 July 2002. The real party in interest is  
Lucent Technologies Inc.

Appeal 2007-3463  
Application 10/197,470

**A. Statement of the Case**

This is an appeal under 35 U.S.C. § 134 from the Examiner's Final Rejection of claims 1-21. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Greene	6,377,925	April 23, 2002
Berger	5,510,981	April 23, 1996

Claims 1-21 stand rejected as being unpatentable under 35 U.S.C. § 103(a) over Greene in view of Berger (Final Rejection 2-8 and Ans. 3-8).

**BACKGROUND**

The invention is related to a system **100, 200** and associated method for visually communicating the meaning of information to the hearing impaired with a graphical display **104** of sign language animations. An association unit **106, 202** is adapted to associate textual or audio symbols with known sign language symbols. New sign language symbols can also be generated in response to information that does not have a known sign language symbol. The information can be treated as elements that can be weighted according to each element's contribution to the overall meaning of the information to be communicated. The system can graphically display representations of both known and new sign language symbols to a hearing impaired person. (**figs. 1-2**, Abstract, Spec. pp. 2-5).

**B. Issues**

The issue before us is whether Applicants have shown that the Examiner erred in determining that claims 1-21 are unpatentable under 35 U.S.C. § 103(a) over Greene in view of Berger?

For the reasons that follow, Applicants have failed to sufficiently show that the Examiner erred in determining that claims 1-21 are unpatentable under 35 U.S.C. § 103(a) over Greene in view of Berger.

**C. Findings of Fact (“FF”)**

The record supports the following finding of facts as well as any other findings of fact set forth in this opinion by at least a preponderance of the evidence.

1. Applicants’ claims 1-21 are the subject of this appeal.
2. Claims 1 and 12 are independent claims.
3. Claims 2-11 and 13-21 are dependent on claims 1 and 12 respectively.
4. All claims stand or fall together since Applicant has argued all the claims as a group (App. Br. 10-11).
5. Claim 1 is representative and is as follows:

A system for visually communicating information to the hearing impaired comprising:  
an association unit adapted to:  
associate each information element with its known sign language symbol; and  
generate a new sign language symbol for each element not associated with a known sign language symbol, wherein each element not associated with a known sign language symbol is weighted according to its contribution to the overall meaning of the information to be communicated.

6. The Examiner found that Greene describes an association unit adapted to associate each information element with its known sign language symbol (fig. 1, col. 5, ll. 10-22) and generate a new sign language symbol for each element not associated with a known sign language symbol (col. 5, ll. 37-42) (Final Rejection 2-3 and Ans. 3).

7. The Examiner also found that Greene does not describe that each element not associated with a known sign language symbol is weighted according to its contribution to the overall meaning of the information to be communicated (Final Rejection 3 and Ans. 3).

8. The Examiner found that Berger describes a system that converts words from a source language into another in which the lexical probability of the source word is estimated as a probability of being associated with the target word in an alignment and given the context of the words for the purpose of improving the accuracy of the translation match (col. 3, ll. 17-24 and col. 4, ll. 62-67) (Final Rejection 3 and Ans. 4).

9. The Examiner concluded that it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Greene to incorporate the lexical probability for determining word associations as taught by Berger in order to obtain a system that is able to display sign symbols for words with a given determination if the word should be there based on the context of the input. The Examiner also concluded that one would have been motivated because of the need to improve the translation accuracy as taught by Berger. (Final Rejection 3 and Ans. 4).

**D. Principles of Law**

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 skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, (1966).

“A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” *Application of Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976).

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument.” *Id.*

“Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.” *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

**E. Analysis**

Claims 1-21 stand or fall together (FF<sup>2</sup> 4). Claim 1 is representative of the group and recites “each element not associated with a known sign language symbol is weighted according to its contribution to the overall meaning of the information to be communicated.” Applicants do not dispute the Examiner’s findings with respect to Greene (FFs 6-7). Rather, Applicants dispute the Examiner’s findings and conclusions made with respect to Berger. The Examiner relied on Berger for meeting the above limitation. The Examiner found that Berger describes a system that converts words from a source language into another in which the lexical probability of the source word is estimated as a probability of being associated with the target word in an alignment and given the context of the words for the purpose of improving the accuracy of the translation match (FF 8).

Applicants indicate doubt about whether Berger describes “a weighting process” (App. Br. 10, 11 and Reply Br. 1, 2, 3). However, Applicants have not expressly contested this issue<sup>3</sup> nor explained in any meaningful way why the Examiner’s finding that Berger describes a weighting process is in error. The burden of establishing error in the Examiner’s findings is on the Applicants. The Applicants must demonstrate with more than conclusory statements or mere hints that something is not what the Examiner says it is.

Applicants argue that the Examiner has failed to establish a prima facie case of obviousness because the references used by the Examiner do not disclose or suggest the claimed weighting process in association with *sign*

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<sup>2</sup> FF denotes Finding of Fact.

<sup>3</sup> For example, Applicants state that “to simplify the issues on appeal for now, the Applicants will demur on whether Berger even discloses a weighting process” (App. Br. 10).

Appeal 2007-3463  
Application 10/197,470

*language* symbols (App. Br. 11 and Reply Br. 1-2). Applicants also argue that the Examiner is impermissibly ignoring the limitation “each element not associated with a known sign language symbol” as related to the weighting process and found in claim 1 (Reply Br. 2-3). Applicants further contend that there is no motivation or suggestion to combine the references found in the references themselves (Reply Br. 3-4) and conclude that upon reading Berger one with ordinary skill in the art would not have been motivated to combine Berger with Green (Reply Br. 3-4). In support of all their arguments, Applicants point out that Berger’s weighting process does not involve sign language symbols but involves French and English sentences (App. Br. 11 and Reply Br. 1-4).

Applicants have failed to direct us to any authority supporting Applicants’ stated requirement that to establish a prima facie case of obviousness one or more of the Examiner’s references, either singularly or in combination, must explicitly suggest the claimed weighting process in association with sign language symbols. In an obviousness analysis, it is not necessary to find precise teachings in the prior art directed to the specific subject matter claimed because inferences and creative steps that a person of ordinary skill in the art would employ can be taken into account. *See KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Indeed, “[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.”<sup>4</sup> Aside from pointing out that Greene does not disclose weighting and Berger is unrelated to sign language, Applicants have failed to demonstrate why the *combined* teachings of

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<sup>4</sup> *Application of Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976).

Appeal 2007-3463  
Application 10/197,470

Greene and Berger would not have suggested the claimed subject matter to a person of ordinary skill in the art. “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.”<sup>5</sup>

Applicants’ argument that there is no motivation or suggestion to combine the references is also not persuasive. Applicants fail to address the Examiner’s determination that the need to improve the translation accuracy would have led one with ordinary skill in the art to modify the device of Greene with the Berger translation program that incorporates lexical probabilities for determining word associations based on the context of the words (FF 8-9).

Lastly, to the extent that Applicants argue that Berger is non-analogous art because Berger’s translation program is not related to sign language symbols, Applicants have failed to show or explain why Berger is not “from the same field of endeavor” or “is not reasonably pertinent to the particular problem with which the inventor is involved.”<sup>6</sup> Applicants have failed to provide a reason why one with ordinary skill in the art faced with the problem of translating written or spoken language to sign language symbols would not look to similar devices and methods for translating written or spoken language from one language to another (i.e. French to English, English to Spanish, etc.). Moreover, encountering a word or idiom that does not have an exact translation is an inevitable occurrence whether the translation is from one spoken or written language to another, or from a spoken or written language to sign language symbols.

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<sup>5</sup> *In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

<sup>6</sup> *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

Appeal 2007-3463  
Application 10/197,470

In conclusion, Applicants' arguments that Berger is unrelated to or silent as to sign language symbols (App. Br. 10 and Reply Br. 1-2, 3, 4), and that the weighting process of Berger does not involve sign language symbols but French and English sentences (App. Br. 11 and Reply Br. 1-4) does not rise to the level of showing error by the Examiner.

For the foregoing reasons, Applicants have failed to sufficiently show that the Examiner erred in determining that claims 1-21 are unpatentable under 35 U.S.C. § 103(a) over Greene in view of Berger.

#### **F. Decision**

Upon consideration of the record, and for the reasons given, the Examiner's rejection of claims 1-21 as unpatentable under 35 U.S.C. § 103(a) over Greene in view of Berger is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

**AFFIRMED**

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