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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JONG-GOO LEE, EYAL TOLEDANO, NATAN LINDER,  
YARIV EISENBERG, and RAN BEN-YAIR

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Appeal 2009-012781  
Application 10/743,476<sup>1</sup>  
Technology Center 2100

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Before JEFFREY S. SMITH, KALYAN K. DESHPANDE, and  
MICHAEL R. ZECHER, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> Filed on December 23, 2003. This application claims priority to provisional application 60/500,669, filed on September 5, 2003. The real party in interest is Samsung Electronics Co. Ltd. App. Br. 1.

## I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) (2002) from the Examiner's rejection of claims 1-7 and 109-141. App. Br. 2. Claims 8-108 and 142-179 have been cancelled. *Id.* We have jurisdiction under 35 U.S.C. § 6(b) (2008).

We affirm.

### *Appellants' Invention*

Appellants invented a system and method directed to a proactive user interface for use with mobile information devices. Spec. 1: 6-7.<sup>2</sup>

### *Illustrative Claim*

1. A proactive user interface for a computational device, the computational device having an operating system, comprising:

(a) an interface unit for communicating between a user and said operating system; and

(b) a learning module for detecting at least one pattern of interaction of the user with said interface unit and for proactively altering at least one function of said interface unit according to said detected pattern.

### *Prior Art Relied Upon*

Hoffberg                      US 6,400,996 B1                      June 4, 2002

### *Rejection on Appeal*

Claims 1-7 and 109-141 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hoffberg. Ans. 2-5.

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<sup>2</sup> All references to the Specification are to the clean version of the Specification entered January 24, 2005.

*Appellants' Contentions*

Appellants contend that Hoffberg's figure 15, which illustrates a flow diagram of a predictive user interface, does not describe proactive altering according to a detected pattern, as required by independent claims 1 and 122. App. Br. 11. In particular, Appellants argue that Hoffberg's disclosure of providing frequently used choices for program selections fails to describe "proactively altering [of] at least one function of said interface unit according to said detected pattern," as claimed. *Id.* In response to the Answer, Appellants allege that the Examiner provides new citations from Hoffberg that improperly seek to combine different embodiments in order to formulate the anticipation rejection. Reply Br. 2-3. Further, Appellants allege that the Examiner's anticipation rejection is improper because the Examiner cites to multiple references. App. Br. 12-13; Reply Br. 3.

*Examiner's Findings and Conclusions*

The Examiner finds that Hoffberg's cited disclosure, namely column 42, lines 20-67, column 50, lines 50-67, and column 85, lines 5-67, teaches or suggests the disputed claim limitation. Ans. 3, 6-10. In particular, the Examiner finds that Hoffberg discloses an adaptive interface that predicts the desired user function by monitoring the user's history, interface context, and machine status, and then uses the predicted function to change the interface accordingly. *Id.* at 6-7. Further, the Examiner disagrees with Appellants' allegation that the anticipation rejection is improper because the Examiner cites to multiple references. *Id.* at 11-12. The Examiner maintains that the anticipation rejection is not based on multiple references, but rather is based solely upon the teachings of Hoffberg as a single reference. *Id.* at 11.

## II. ISSUE

Did the Examiner err in finding that Hoffberg anticipates independent claim 1? In particular, the issue turns on whether:

- (a) Hoffberg describes “proactively altering at least one function of said interface unit according to said detected pattern,” as recited in independent claim 1, and similarly recited in independent claim 122; and
- (b) the Examiner improperly relied upon multiple references in making the anticipation rejection.

## III. FINDINGS OF FACT (“FF”)

### *Hoffberg*

FF 1. Hoffberg discloses signal analysis and complex pattern recognition. In particular, Hoffberg discloses analyzing any data set presented to a system either internally, via a user interface, or through the environment in which the system operates. Further, Hoffberg discloses that pattern recognition involves examining a complex data set in order to determine similarities with other data sets, typically data sets which have been previously characterized. Col. 10, ll. 15-25.

FF 2. Hoffberg discloses an adaptive user interface that changes in response to context, past history, and the status of the corresponding system. In particular, Hoffberg discloses that the user interface may provide a model of the user, which is employed in a predictive algorithm. Hoffberg discloses that the model parameters may be static or dynamic, and may be adaptive to the user or alterations in the user pattern. Abstract; Col. 50, ll. 53-62.

FF 3. Hoffberg's figure 15 illustrates a flow diagram of a predictive user interface. Col. 83, ll. 15-16; Fig. 15.

#### IV. ANALYSIS

##### *Claims 1 and 122*

We do not find error in the Examiner's anticipation rejection of independent claims 1 and 122. In particular, independent claim 1 recites, *inter alia*, "proactively altering at least one function of said interface unit according to said detected pattern."

At the outset, we adopt the Examiner's findings as our own. Ans. 3, 6-11; *see also* FFs 1-3. In particular, we agree with the Examiner that Hoffberg's disclosure of an adaptive user interface that predicts a desired user function by monitoring the user's history, interface context, and system status, in conjunction with using the predicted function to alter the user interface accordingly (FFs 2 and 3), describes the disputed claim limitation. Ans. 6-7. Moreover, we are not persuaded by Appellants' argument that the Examiner improperly combines different embodiments to formulate the anticipation rejection. Reply Br. 2-3. We note that the Examiner provides multiple citations from Hoffberg's disclosure, including the Background of the Invention section (FF 1), the Summary and Objects of the Invention section (FF 2), and the embodiment illustrated in figure 15. FF 3. However, we find that these cited portions of Hoffberg's disclosure, namely the complex pattern recognition and predictive algorithm (FFs 1 and 2), highlight the important features implemented by the predictive user interface illustrated in figure 15. FF 3.

Further, we are not persuaded by Appellants' argument that the Examiner's anticipation rejection is improper because the Examiner cites to multiple references. App. Br. 12-13; Reply Br. 3. We agree with the Examiner that the anticipation rejection was not based upon citations from multiple references, but rather was based solely upon Hoffberg's disclosure. *See* Ans. 11. Consequently, we find that the Examiner properly relied only upon Hoffberg to make the anticipation rejection.

Nonetheless, it is well settled law that multiple references may be used in the context of an anticipation rejection to show how an ordinarily skilled artisan would have understood words and phrases used in the anticipating reference. *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991) (Extrinsic evidence may be used to explain, but not expand, the meaning of terms and phrases in an anticipatory reference.); *In re Samour*, 571 F.2d 559, 562-63 (CCPA 1978) (“[T]he key issue before us is whether the PTO, in making a rejection under 35 USC 102(b) on a single prior art reference that discloses every material element of the claimed subject matter, can properly rely on additional references for such purpose. We hold in the affirmative.”). In this case, the Examiner's reference to Hoffberg's disclosure in column 42, lines 20-67, not only indicates the patents properly incorporated by reference, but also amounts to extrinsic evidence that explains the meaning of pattern recognition functions with respect to Hoffberg's predictive user interface.<sup>3</sup> It follows that the Examiner has not erred in finding that Hoffberg anticipates independent claims 1 and 122.

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<sup>3</sup> A § 102 rejection over multiple references is proper to explain the meaning of a term used in the primary reference. *See* Manual of Patent Examining Procedure § 2131.01.

*Claims 2-7, 109-121, and 123-141*

Appellants do not provide separate and distinct arguments for patentability with respect to dependent claims 2-7, 109-121, and 123-141. *See* App. Br. 11-13; Reply Br. 2-3. Therefore, we select independent claims 1 and 122 as representative of these aforementioned claims. *See* 37 C.F.R. § 41.37(c)(1)(vii). Consequently, we find that the Examiner has not erred in rejecting dependent claims 2-7, 109-121, and 123-141 for the same reasons set forth in our discussion of independent claims 1 and 122.

V. CONCLUSION OF LAW

The Examiner has not erred in rejecting claims 1-7 and 109-141 as being anticipated under 35 U.S.C. § 102(b).

VI. DECISION

We affirm the Examiner's decision to reject claims 1-7 and 109-141. No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

msc