

The opinion in support of the decision being entered today  
and is *not* binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHRISTOPHER J. DiGIANO, JEREMY ROSCHELLE,  
and PHILIP VAHEY

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Appeal 2007-0601  
Application 09/792,290<sup>1</sup>  
Technology Center 2100

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Decided: June 29, 2007

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*Before:* ALLEN R. MacDONALD, JAY P. LUCAS, and MARC S. HOFF,  
*Administrative Patent Judges.*

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of  
claims 1-19. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

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<sup>1</sup> Application filed February 21, 2001. The real party in interest is SRI  
International, Inc.

Appellants' invention relates to a system and method for enhancing participation in an educational environment. Feedback is received from a plurality of individual group members regarding material being presented by a group leader, using a plurality of networked devices operated by the individual group members. The feedback is processed and transmitted back to the individual group members. In one embodiment, the processed feedback includes the feedback received from the other group members, allowing each individual group member to view the feedback of other group members (Specification 3: 3-14).

Claim 1 is exemplary:

1. A method for enhancing participation in an educational environment using networked devices, comprising the steps of:  
(a) receiving feedback from a plurality of individual group members regarding material being presented by a group leader utilizing a plurality of networked devices operated by the group members, wherein the networked devices include wireless thin client devices;  
(b) processing the feedback to generate processed feedback, said processed feedback comprising feedback received from at least two of said group members; and  
(c) transmitting the processed feedback to the networked devices operated by the group members.

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

DeNICOLA	US 6,288,753 B1	Sep. 11, 2001
SHIIGI	US 6,304,898 B1	Oct. 16, 2001

Claims 1-3 and 9-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by DeNicola. Claims 4-8 stand rejected under 35 U.S.C. § 103(a) as being obvious over DeNicola in view of Shiigi.

Appellants contend that the subject matter of claims 1-3 and 9-19 is not anticipated, and that of claims 4-8 is not obvious, in that DeNicola does not teach transmitting processed feedback received from at least two of the group members (back) to the networked devices operated by the group members. The Examiner contends that DeNicola does teach transmitting processed feedback (in the form of exam results) back to individual group members, and the claim language does not require that processed feedback be the combined feedback of plural group members.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).<sup>2</sup>

#### ISSUE

The principal issue in the appeal before us is whether the claim language “providing processed feedback ... received from at least two of

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<sup>2</sup> Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii).

said group members” and “transmitting the processed feedback to the networked devices operated by the group members” requires that the processed feedback consist of combined feedback from two or more group members.

#### FINDINGS OF FACT

1. Appellants invented a system, method, and computer program product for enhancing awareness of fellow students’ state of comprehension in an educational environment (Br 3:18-20).

2. DeNicola teaches a system and method for live interactive distance learning. DeNicola teaches administering tests to a plurality of students connected via networked thin client devices, scoring the tests, and providing instantaneous test results to each student (col. 13, ll. 38-48).

3. DeNicola teaches providing each student with his or her individualized test results (col. 14, ll. 13-16).

4. DeNicola further teaches a client level account management system, by which a client (for example, the students’ employer) may retrieve all students’ exam results, along with other statistics showing the students’ relative performance by region, nation, or worldwide, as well as percentile ranking by department or division, by course, by class, and by student (col. 14, ll. 20-39).

5. Shiigi teaches an interactive messaging system where the messaging devices are personal digital assistants, with styli, using wireless communication (Abstract, ll. 13-19).

## PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) (*citing In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant. *Piasecki*, 745 F.2d at 1472, 223 USPQ at 788. Thus, the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner's conclusion.

There is presumed to be a difference in meaning and scope when different words and phrases are used in separate claims. To the extent that the absence of such difference and meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant. *Tandon Corp. v. U.S. Int'l*

*Trade Commission*, 831 F.2d 1017, 1023, 4 USPQ2d 1283, 1288 (Fed. Cir. 1987).

## ANALYSIS

### **Independent claims 1, 18, and 19**

Appellants argue that DeNicola does not teach, show, or suggest “transmitting processed feedback to a group member, comprising feedback received from at least two group members and regarding material being presented, as claimed in Appellants’ independent claims 1, 18 and 19” (Br. 7:13-17). We disagree that the claim language explicitly requires that the processed feedback transmitted to a single group member contain information (“feedback”) that was received from at least two group members.

Exemplary Claim 1 calls for (a) “receiving feedback from a plurality of individual group members regarding material being presented by a group leader”; (b) “processing the feedback to generate processed feedback, said processed feedback comprising feedback received from at least two of said group members”; and (c) “transmitting the processed feedback to the networked devices operated by the group members.”

The word “feedback” is used interchangeably in this application, and in the English language as a whole, as either a singular or plural noun. The same thing can of course be said of the claim phrase “processed feedback.” Applying this principle to Appellants’ claims, Appellants recite processing the (plural items of) feedback received from a plurality of individual group members to generate (one or more items of) processed feedback, said

processed feedback comprising [i.e., consisting of but not limited to] (one or more items of) feedback received from at least two of said group members; and transmitting (one or more items of) processed feedback to the networked devices operated by the group members.

Further, Appellants' independent claims contain no language requiring that "feedback" from more than one individual user must be combined ("aggregated") into a unitary item of "processed feedback"; neither do the independent claims require that all group members received the same single item, or multiple items, of "processed feedback."

DeNicola teaches receiving feedback (exam answers) from a plurality of individual group members (Fact 2); processing that feedback to generate processed feedback (a plurality of exam scores – one for each individual group member)(Fact 2); and transmitting that processed feedback to the group members' devices, i.e. providing each individual group member with his or her exam score (Fact 3).

Appellants argue that the language of claim 1 requires "combining (e.g. aggregating) the feedback of two or more students to produce processed feedback," (Br. 8:24-25) but claims 1, 18 and 19 recite neither "combining" nor "aggregating."<sup>3</sup> Appellants suggest that their invention enables the student "to compare his or her answers with those of other students," (Br. 8:26-27) but no independent claim contains such a limitation. We therefore

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<sup>3</sup> Under the doctrine of claim differentiation, a court construing these claims in an infringement context, (given the "aggregating" limitation of dependent claim 2), would interpret claim 1 as not being limited to aggregated processed feedback, an interpretation directly contrary to that urged by Appellants.

sustain the Examiner's rejection of claims 1, 18, and 19 under 35 U.S.C. § 102.

### **Claims 2 and 10**

In contrast to claim 1, claim 2 does recite that “the processing includes aggregating,” and claim 10 recites “further comprising the step of aggregating the feedback.” DeNicola teaches a “client level account management system,” by which a client, e.g. the employer of the persons receiving the training, may retrieve all students' exams including questions and corresponding answers with connotation of correct or incorrect, as well as the client entity's overall ranking of student performance relative to other clients on a regional national and global scale, as well as percentile ranking by department or division, by course, by class, and by student (Fact 4). We note that claims 2 and 10 require that aggregating be done, but neither claim 2 nor claim 10 (nor parent claim 1) contains language that requires that aggregated feedback be provided to individual group members. As discussed *supra*, because “feedback” is interchangeably singular or plural, the “processed feedback” may fairly be construed to consist of many items of information, only some of which are provided to individual group members (students). We therefore find that a client's ability to retrieve a full set of students' exam answers and scores meets the claimed step of “aggregating feedback.” We therefore sustain the Examiner's rejection of claims 2 and 10 under 35 U.S.C. § 102.

### **Claim 12**

Claim 12 calls for feedback to be “identified based on the individual group members that transmitted the same thus allowing each group member to identify a source of the feedback.” Because DeNicola teaches transmitting processed feedback in the form of an individual’s exam score, back to that individual (Fact 3), that individual may naturally identify a source of the feedback, specifically his or her own exam answers. We therefore sustain the Examiner’s rejection of claim 12 under 35 U.S.C. § 102.

### **Claims 4 and 5**

Appellants’ argument with respect to the obviousness of claims 4 and 5 is the same argument advanced with respect to independent claim 1, i.e. that neither DeNicola nor Shiigi teach “transmitting processed feedback to a group member, comprising feedback received from at least two group members and regarding material being presented” (Br. 21:9-10). For the reasons discussed *supra*, we find that DeNicola meets these limitations. We further agree with the Examiner that Shiigi suggests student use of wireless personal digital assistants having styli (Fact 5), and that it would have been obvious to modify DeNicola to include student use of such devices because of their light weight and ease of use (Answer 8:3-10). We therefore sustain the Examiner’s rejection of claims 4 and 5 under 35 U.S.C. § 103(a).

### **Claims not separately argued**

Appellants purport to separately argue claims 3, 5, 9, 11, 13, 15, 16, 18, and 19. However, Appellants merely state the features of each of these claims and allege, without explaining why, that the additional features render each claim separately patentable.

37 CFR § 41.37 (c) (1) (vii) states that “[a] statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.”

Appellants have not discussed why the evidence would support a holding that claims 3, 5, 9, 11, 13, 15, 16, 18, and 19 are patentable apart from claim 1. Therefore, we will sustain the Examiner’s rejection of claims 3, 9, 11, 13, 15, 16, 18, and 19 under 35 U.S.C. § 102, and sustain the Examiner’s rejection of claim 5 under § 103, as standing or falling with the patentability of claim 1.

### **Claims 6-8, 14, and 17**

With regard to claim 6, and claims 7 and 8 dependent therefrom, neither DeNicola nor Shiigi teach depicting, on the wireless devices of the group members, a multi-dimensional map including at least two axes each indicating a parameter of feedback.

With regard to claim 14, DeNicola does not teach monitoring the age of the feedback, then modifying the feedback upon that age reaching a predetermined amount.

With regard to claim 17, DeNicola does not teach including, in the processed feedback supplied to individual group members, the feedback

received from each of the individual group members, nor allowing each group member to view the feedback of other group members.

Accordingly, we will not sustain the Examiner's rejections of claims 6-8, 14, and 17.

#### CONCLUSION OF LAW

We conclude that Appellants have not shown the Examiner erred in rejecting claims 1-5, 9-13, 15, 16, 18, and 19. We conclude that Appellants have shown the Examiner erred in rejecting claims 6-8, 14, and 17.

Claims 1-5, 9-13, 15, 16, 18, and 19 are not patentable.

On the record before us, claims 6-8, 14, and 17 have not been shown to be unpatentable.

#### DECISION

The Examiner's rejection of claims 1-5, 9-13, 15, 16, 18, and 19 is affirmed. The Examiner's rejection of claims 6-8, 14, and 17 is reversed.

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-IN-PART

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Application 09/792,290

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