# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

IP INNOVATION L.L.C. AND TECHNOLOGY LICENSING	) )
CORPORATION,	)
	) Case No. 2:07cv503-LED
Plaintiffs,	)
	) PLAINTIFFS' REPLY TO DEFENDANT
V.	) GOOGLE'S AMENDED COUNTERCLAIMS
GOOGLE, INC.,	COUNTERCEAMING
33322, 1113.,	JURY TRIAL DEMANDED
Defendant.	,

Plaintiffs' reply to Defendant Google, Inc.'s (Google) counterclaims as follows:

#### **COUNTERCLAIMS**

1. This is an action in counterclaim for a declaratory judgment that Google does not infringe the U.S. Patent Nos. 5,276,785 ("the '785 patent") and 5,675,819 ("the '819 patent") and that the '785 and '819 patents are invalid.

# **RESPONSE**:

Admitted that Google purports to state such a claim. Otherwise, denied.

#### THE PARTIES

2. Google is a Delaware corporation having its corporate headquarters and principal place of business at 1600 Amphitheatre Parkway, Mountain View, California, 94043.

### **RESPONSE:**

Admitted.

3. Upon information and belief, IP Innovation L.L.C. is a Texas limited liability company with a place of business at 707 Skokie Boulevard, Suite 600, Northbrook, Illinois 60062.

#### **RESPONSE:**

Admitted.

4. Upon information and belief, Technology Licensing Corporation is a Nevada corporation having a principal place of business at 1000 E. William Street, Suite 204, Carson City, Nevada, 89701.

# RESPONSE:

Admitted.

#### JURISDICTION AND VENUE

5. These counterclaims arise under the patent laws of the United States, 35 U.S.C. §§ 101, 102, 103, 112 *et seq.* and under the declaratory judgment act, 28 U.S.C. §§ 2201 and 2202.

## **RESPONSE**:

Admitted.

6. This Court has subject matter jurisdiction over these counterclaims pursuant to 28 U.S.C. §§ 1331 and 1338(a).

### **RESPONSE:**

Admitted.

7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c) because Plaintiffs are subject to personal jurisdiction in this judicial district.

### **RESPONSE**:

Admitted that venue is proper. Otherwise, denied.

#### COUNT I - DECLARATORY JUDGMENT OF NON-INFRINGEMENT

8. Google incorporates the allegations contained in paragraphs I-7 of the Counterclaims as if fully set forth here.

# RESPONSE:

Plaintiffs incorporate their responses to paragraphs 1-7 as if they were fully set forth herein.

9. Plaintiffs have claimed that they own the '785 and '819 patents, and that Google infringes those patents.

# RESPONSE:

Admitted that Plaintiffs own the right, title and interest in and have standing to sue for infringement of the '785 and '819 patents.

10. An actual and justiciable controversy exists between the parties with respect to the alleged infringement of the '785 and '819 patents.

### **RESPONSE**:

Admitted.

11. Google does not infringe and has not infringed any claims of the '785 and '819 patents.

# **RESPONSE**:

Denied.

12. Google is entitled to a declaratory judgment that it does not infringe and has not infringed any claims of the '785 and '819 patents.

#### RESPONSE:

Denied.

#### COUNT II - DECLARATORY JUDGMENT OF II\INVALIDITY

13. Google incorporates the allegations contained in paragraphs 1-12 of the Counterclaims as if fully set forth here.

# **RESPONSE**:

Plaintiffs incorporate their responses to paragraphs 1-12 as if they were fully set forth herein.

14. An actual and justiciable controversy exists between the parties with respect to the validity of the '785 and '819 patents.

#### RESPONSE:

Admitted that Google purports to state a claim regarding the validity of the '785

and '819 patents. Otherwise, denied.

15. The '785 and '819 patents are invalid under one or more provisions of 35 U.S.C. § 101 et seq.

# **RESPONSE**:

Denied.

16. Google is entitled to a declaratory judgment that the '785 and '819 patents are invalid.

### **RESPONSE**:

Denied.

#### COUNT III – DECLARATORY JUDGMENT OF UNENFORCEABILITY OF PATENTS

17. Google incorporates the allegations contained in paragraph 1-16 of the Counterclaims as if fully set forth here.

### **RESPONSE:**

Plaintiffs incorporate their responses to paragraphs 1-16 as if they were fully set forth herein.

18. An actual and justiciable controversy exists between the parties with respect to the enforceability of the '785 and '819 patents due to inequitable conduct.

# **RESPONSE**:

Admitted that Google purports to state a claim for inequitable conduct. Otherwise, denied.

19. Google is entitled to a declaration that the '785 and '819 patents are unenforceable due to inequitable conduct committed by the applicants before the PTO.

# **RESPONSE**:

Denied. The '785 and '819 patents are valid and enforceable.

20. Specifically, the asserted claims of the '785 patent are directed to "techniques for operating a system to produce the perception of a moving viewpoint in a three-dimensional workspace." ('785 patent, 2:14-16).

### **RESPONSE:**

Denied as stated. The quoted language does not encompass all of the asserted claims of the '785 patent.

21. Prior to submitting the application for the '785 patent, one or more of the '785 patent application participants – including without limitation the named inventors of the '785 patent, patent attorneys at Xerox (including without limitation James Beran), and/or other individuals who assisted or participated in the preparation, filing, or prosecution of the '785 patent application – were aware of material, non-cumulative prior art but failed to disclose it to the patent examiner.

# **RESPONSE**:

Denied.

22. In particular, one or more of the '785 patent application participants were aware of the following three references: 1) Phillips, Cary B. and Badler, Norman I., "Jack: A Toolkit for Manipulating Articulated Figures," Proceedings of the ACM SIGGRAPH Symposium on User Interface Software and Technology, October 1988, pp. 221-29 ("Phillips"); 2) Bier, Eric A., "Snap-Dragging in Three Dimensions," Computer Graphics, Volume 24, Number 2, March 1990, pp. 193-204 ("Bier"); and 3) U.S. Patent No. 4,807,158 to Blanton et al (the "Blanton '158 patent") (together, Phillips, Bier, and the Blanton '158 patent are the "undisclosed '785 references").

#### **RESPONSE:**

Denied.

23. Phillips and the Blanton '158 patent were each published more than one year before the '785 patent priority date of August 2, 1990, and are therefore each prior art to the '785 patent under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(b). Bier was published before the '785 patent priority date of August 2, 1990, and is therefore prior art to the '785 patent under 35 U.S.C. § 102(a).

# RESPONSE:

Plaintiffs are without sufficient knowledge and information regarding the publication date of the Philips, Blanton, and Bier references. Therefore, denied.

24. The '785 patent application participants were aware that Phillips, Bier, and the Blanton '158 patent each disclose specific subject matter relevant to the '785 patent – namely, three-dimensional graphical user interface systems. In fact, each of the

undisclosed '785 references is highly material to the patentability of the invention claimed in the '785 patent.

#### RESPONSE:

Denied.

25. Phillips describes a graphics program (called "Jack") for manipulating three-dimensional objects (e.g., human figures, cubes, other geometric shapes) and controlling viewpoint motion relative to selected objects. Phillips allows users to a select a point and then, for example, zoom toward the point or rotate about the point: "Jack has a simple set of routines for manipulating the view, based on the operations of sweeping, panning, and zooming. The sweep operation sweeps the camera around horizontally and vertically on a virtual circular track, keeping it focused at the same reference point." (Phillips, p. 224). The '785 patent application participants cited Phillips in both a co-pending patent application that became the U.S. Patent No. 5,359,703 (see Beran Tr. 92:23-95:3) and in a paper authored by the named inventors Jock D. Mackinlay, Stuart K. Card, and George G. Robertson, entitled "Rapid Controlled Movement Through a Virtual 3D Workspace," published in Computer Graphics, Volume 24, Number 4, August 1990, pp. 171-76 ("Rapid"), which was published the same month that the application for the '785 patent was filed and well before the '785 patent issued, and which named inventor Robertson testified described the invention claimed in the '785 patent. In "Rapid," in a section titled "Current Viewpoint Movement Techniques," the '785 patent application participants acknowledged that Phillips teaches both viewpoint motion and object motion. They stated that Phillips can accomplish "3D viewpoint movement" by "moving the viewpoint through the workspace" and by "using object movement techniques." (Rapid, p. 172).

### **RESPONSE**:

Admitted that Philips was cited in U.S. Patent No. 5,359,703 and in a paper entitled, "Rapid Controlled Movement through a Virtual 3D Workspace." Otherwise, denied.

26. Bier describes a three-dimensional computer graphics program as well as technique for "precisely placing points and objects in a three-dimensional scene." (Bier p. 193). Bier teaches a region indicating signal indicating a point on the first surface. Bier describes a "three-dimensional cursor, called the snap-dragging skitter, to snap to points, curves, and surfaces in the scene" that "requires no input device other than a keyboard and mouse." (Bier p. 193). The '785 patent application participants cited Bier in both a co-pending patent application that became the U.S. Patent No. 5,359,703 (see Beran Tr. 87:17 – 89:23) and the Rapid paper. In that paper, which was published days after the filing of the '785 patent, in a section titled "POI OBJECT MOTION," the named inventors of the '785 patent stated: "The integration of POI object movement with 3D

snap-dragging [3] should be straightforward. They both use the mouse cursor to cast a ray into the workspace for finding points of interest. The snap-dragging skitter can be used for POI feedback, with the added bonus that gravity can assist with the precise specification of the point of interest." (Rapid, p. 175, col. 1, emphasis added). Moreover, named inventor Robertson acknowledged similarities between the invention claimed in the '785 patent and the system disclosed in Bier, including that both allow the user to focus on 3D workspace during movements. (Robertson Dep. 163:15 – 164:24).

## **RESPONSE**:

Admitted that Bier was cited in U.S. Patent No. 5,359,703 and in a paper entitled, "Rapid Controlled Movement through a Virtual 3D Workspace." Otherwise, denied.

27. The "Blanton '158 patent describes a system (a flight simulator) that allows a user to control viewpoint motion through a simulated three-dimensional world of sampled panoramic images. The Blanton '158 patent teaches changing the viewpoint as a function of distance in an example of an aircraft moving from one altitude to another. The '785 patent application participants were aware of the Blanton '158 patent and cited it during prosecution of what became U.S. Patent No. 5,295,243, well before the '785 patent issued. (see Beran Tr. 112:13 – 115:4).

### **RESPONSE:**

Admitted that Blanton was cited in U.S. Patent No. 5,295,243. Otherwise, denied.

28. Phillips, Bier, and the Blanton '158 patent together or individually with the other references cited during prosecution of the '785 patent application render claims 1, 2, 3, 4, 9, 28, 29, 30, 41, 42, 52, and 54 invalid as obvious under 35 U.S.C. § 103. Moreover, Phillips renders at least claims 1-4, 9, 28,-30, 41, 42, 52, and 54 invalid as anticipated under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(b). Additionally, none of the undisclosed '785 references is cumulative of other information of record in the prosecution of the '785 patent.

#### RESPONSE:

Denied.

29. Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, the '785 patent application participants were required to file an Information Disclosure Statement ("IDS") to the PTO during prosecution of the '785 patent that listed the undisclosed '785 references, and to provide a legible copy of each of them to the PTO. The '785 patent application participants failed to list any of the undisclosed '785 references on any IDS. (See Beran Tr. 103:24-104:4, 129:17-23, 133:6-22,136:7-10, 139:11-16, 140-8:20, 144:13-17,

146:17-22, 148:9-12, 153:16 – 154:6, 156:24 – 158:11, 159:5-11, 105:10-18, 129:24 – 130:3, 133:23 – 134:2, 136:11-13, 139:11-16, 140:21 – 141:8, 144:18-20, 146:23 – 147:2, 148:13-15, 160:19-23, 130:4-6; 134:3-6, 136:14-16, 139:21-24, 141:9-12, 144:21-23, 147:3-6, 148:16-18, 162:20-24). The '785 patent application participants also failed to provide a copy of the undisclosed '785 references to the PTO during prosecution of the '785 patent. Had the PTO received each of these references, it would have been apparent that at least claims 1, 2, 3, 4, 9, 28, 29, 30, 41, 42, 52, and 54 were invalid.

### **RESPONSE:**

Otherwise, denied.

Admitted that the references do not appear on the face of the '785 patent.

30. Upon information and belief, the '785 patent application participants failed to file an IDS that disclosed and provided copies of each of the undisclosed '785 references to the PTO with the intent of deceiving the PTO. Mr. Beran could not provide an explanation for why they were not cited. (See Beran Tr. 159:13 – 163:14).

# **RESPONSE**:

Denied.

31. In the only Office Action issued during the prosecution of the application that issued as the '785 patent, all the pending claims (claims 1-62) were rejected. In response, '785 patent application participants filed an Amendment on November 12, 1992 ("the Amendment").

# RESPONSE:

Admitted.

32. In the Amendment, '785 patent application participants argued that their alleged invention "solves a basic problem in moving [a] viewpoint in a three-dimensional workspace .... Although it is frequently desirable to move the viewpoint closer to a specific target, conventional techniques do not provide an easy way for the user to obtain viewpoint motion closer to a specific target. (Amendment of 11/12/93, p. 9). Applicants argued that they "solv[e] the viewpoint targeting problem described above by providing appropriate viewpoint motion in response to a user signal indicating a region" and that their solution:

can be implemented as described [by col. 3, lines 11-23 of the '785 patent] in relation to Figs. 2A and 2B: When a user indicates point 16 in image 20 in Fig. 2A and requests viewpoint motion toward point 16, a system can respond with a sequence of images that

ends in image 22 in Fig. 2B so that the user can see point 26, perceptible as a continuation of point 16, and the surrounding area in greater detail. This solution can also be implemented to provide other kinds of viewpoint motion relative to an indicated region on a surface, such as motion, away from the indicated region or motion lateral to the indicated region, as described, for example, in relation to Fig. 8. (Amendment of 11/12/93), p. 9).

### Applicants also stated that:

[t]he invention as defined in claims 1 and 11 solves the viewpoint targeting problem by providing viewpoint displacement in response to a region indicating signal indicating a region on a surface in an image. In response to the region indicating signal, this solution presents another image that includes another surface that is perceptible as a continuation of the previous image. The other surface is viewed, however, from a viewpoint that is displaced from that of the previous image relative to the indicated region. (Amendment of 11/12/93, p. 10).

### **RESPONSE:**

The quoted text does not encompass the entirety of Applicants' amendment.

Therefore, denied.

33. In summary, '785 patent application participants argued that claim 1 was allowable because the prior art allegedly did not teach or suggest the ability for a user to select a region and for the system to generate viewpoint motion in response to that selection. Claim 1, however, is not so limited. (Amendment of 11/12/93, pp. 9-10). Contrary to the representations of the '785 patent application participants, claim 1 does not move the viewpoint in response to a region selection and instead only moves the viewpoint in response to both a "region identifying" and a "motion requesting" signal. (See also Beran Tr. 174:7 – 176:23 and 179:10 – 183:23).

### **RESPONSE**:

Denied.

34. Additionally, the asserted claims of the '819 patent are directed to methods and systems for (1) generating a thesaurus based on the co-occurrence of words in a corpus of documents and (2) using a thesaurus to locate and rank documents relevant to a user's query. Specifically, the '819 patent is directed to a "corpus based method for constructing a thesaurus based on lexical co-occurrence of terms in the corpus" and "accessing and browsing documents based on content similarity" where "[w]ords and documents are represented as vectors in the same multi-dimensional space that is derived from global lexical

co-occurrence patterns." ('819 patent, col. 4, II. 6-14). Prior to submitting the application for the '819 patent, one or more of the '819 patent application participants – including without limitation the named inventors of the '819 patent, patent attorneys at Xerox, patent attorneys at the law firm Oliff & Berridge (including without limitation James A. Oliff and Stephen J. Roe) and/or other individuals who assisted or participated in the preparation, filing, or prosecution of the '819 patent application – were aware of material, non-cumulative prior art but failed to disclose it to the patent examiner.

#### **RESPONSE**:

Admitted that the '819 patent has 47 claims regarding "Document information retrieval using global word co-occurrence patterns." Otherwise, denied.

35. In particular, one or more of the '819 patent application participants were aware of the following three references: 1) Gallant , S.I., Caid, W.R., Carleton, J. Hecht-Nielsen, R., Qing, K.P., and Sudbeck, D., "HNC's *MatchPlus* System," *SIGIR Forum* 26, 2 (Oct. 1992) ("Gallant"); 2) U.S. Patent No. 5,619,709 to Caid et al., ("the '709 patent"); and 3) Schüetze, Hinrich, "Word Space," Advances in Neural Information Processing Systems 5, [NIPS Conference] (Morgan Kaufmann Publishers Inc., San Francisco, CA, 1992), pp. 895-902 ("Schüetze-Word-Space") (together, the "undisclosed '819 references").

# **RESPONSE**:

Admitted that at least one of the '819 patent application participants was aware of Gallant and Word Space. Otherwise, denied.

36. Each of Gallant and Schüetze-Wood-Space was published more than one year before the '819 patent priority date of June 16, 1994, and is therefore prior art to the '819 patent under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(b). The '709 patent issued April 8, 1997, and claims priority to U.S. patent application Ser. No. 124,098, filed September 20, 1993, and is therefore prior art to the '819 patent under 35 U.S.C. § 102(e).

#### RESPONSE:

Plaintiffs are without sufficient information and knowledge regarding the publication dates of the cited references. Therefore, denied.

37. Upon information and belief based upon the deposition testimony of the named inventor, Dr. Schüetze, and documentation concerning conception of the invention claimed in the '819 patent that has been produced in this litigation, the '819 patent application participants were aware of the Gallant, the '709

patent, and Schüetze-Word-Space references prior to and during prosecution of the application for the '819 patent. The '819 patent application participants were also aware that each of these references discloses the specific subject of the '819 patent – namely, generating a thesaurus of words in collection of documents by using co-occurrence word patterns and using the thesaurus to retrieve documents requested by a user's query.

# **RESPONSE**:

Admitted that at least one of the '819 patent application participants was aware of the Gallant and Word Space references. Otherwise, denied.

38. Each of the undisclosed '819 references is highly material to the patentability of the invention claimed in the '819 patent because, among other reasons, each discloses vector based information retrieval systems.

## **RESPONSE**:

Denied.

39. Specifically, Gallant teaches that in defining context vectors, features for differentiating among terms and contexts "may be chosen in an ad hoc manner using 'common sense', or they may consists of <a href="https://night.com/high-frequency-terms-in-a given corpus">high-frequency-terms-in-a given corpus</a>." (Gallant et al., p. 35, section 2 (emphasis added)). Gallant also states that "local <a href="https://www.word-positioning">word-positioning</a>" can be taken into account in forming context vectors. (Gallant et al., p. 35, section 2.2 (emphasis added)). Thus, Gallant teaches that context vectors for the words can be based on co-occurrence of words within each of the documents of the corpus of documents.

#### RESPONSE:

Denied.

40. The '709 patent describes a method for generating a thesaurus of word vectors based on lexical co-occurrence of words within documents of a corpus of documents. For example, the '709 patent describes "a system and method for generating context vectors for use in a document storage and retrieval system," ('709 patent, col. 2, lines 20-22), that "operates on a training corpus of records to develop relationship-based context vectors based on word proximity and co-importance using a technique of 'windowed co-occurrence," ('709 patent, Abstract). The '709 patent describes additions to the system described in Gallant.

#### RESPONSE:

Denied.

41. Schüetze-Word-Space describes "an efficient method for deriving vector representations for words from lexical cooccurrence counts in a large text corpus." (Schüetze-Word-Space, p. 896).

#### RESPONSE:

Denied.

42. Gallant, the '709 patent, and Schüetze-Word-Space, together or individually with the other references cited during prosecution of the application for the '819 patent, render claims 1, 25, 27, 28, and 31 invalid as obvious under 35 U.S.C. § 103. Moreover, Gallant renders at least claims 25, 27, 28, and 31 invalid as anticipated under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(b) and the '709 patent renders at least claims 1, 25, 27, 28, and 31 invalid as anticipated under 35 U.S.C. § 102(e). Additionally, none of the undisclosed '819 references is cumulative of other information of record in the prosecution of the '819 patent.

## RESPONSE:

Denied.

43 .Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, the '785 patent application participants were required to file an Information Disclosure Statement ("IDS") to the PTO during prosecution of the '819 patent that listed the [undisclosed] references, and provided a legible copy of each of them to the PTO. The '819 patent application participants failed to list the [undisclosed] references on any IDS. The '819 patent application participants also failed to provide a copy of the undisclosed '819 references to the PTO during prosecution of the '819 patent. Had the PTO received these references, it would have been apparent that at least claims 1, 25, 27, 28, and 31 were invalid.

### **RESPONSE**:

Admitted that the cited references were not cited on the face of the '819 patent.

Otherwise, denied.

44. Upon information and belief, the '819 patent application participants failed to file an IDS that disclosed and provided copies of each of the undisclosed '819 references to the PTO with the intent of deceiving the PTO. Furthermore, the '819 patent application participants failed to provide an explanation for why Gallant, the '709 patent, and Schüetze-Word-Space were not disclosed to the PTO, supporting an inference that one or more of the '819 patent applicants acted with intent to deceive. Dr. Schüetze and Messrs. Oliff and Roe could not provide an explanation as to why these references were not disclosed. (See Schüetze Tr. 144:19-146; (testifying as to Gallant), Oliff Tr. 38:17-44:18, Roe Tr. 39:19-41:12, 43:18-44:18). When asked whether he disclosed to the patent

office during the prosecution of the '819 patent all relevant and material information of which he was aware, Dr. Schüetze testified that he was "not sure whether that process was handled one hundred percent correctly." (Schüetze Tr., 184:16-185:17).

#### RESPONSE:

Denied.

45. As a result of the inequitable conduct set forth in the above paragraphs, Google is entitled to a declaration that the '785 and '819 patents are unenforceable due to inequitable conduct.

### **RESPONSE**:

Denied.

# PLAINTIFFS' AFFIRMATIVE DEFENSES TO GOOGLE

- Google's purported counterclaims fail to state a basis upon which relief can be granted.
- 2. Plaintiffs reserve their rights to supplement their affirmative defenses as permitted by the Federal Rules of Civil Procedure.
- 3. Google's allegations of inequitable conduct fail to state a claim because its statements do not meet the heightened pleading standards as recently explained by the Federal Circuit in <a href="Exergen Corp.">Exergen Corp.</a> v. <a href="Wal-Mart Stores">Wal-Mart Stores</a>, et al., (Fed. Cir. 2009).

#### **JURY DEMAND**

Plaintiffs demand a jury trial on all issues so triable.

Respectfully submitted,

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ATTORNEYS FOR IP INNOVATION L.L.C. and TECHNOLOGY LICENSING CORPORATION

### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the foregoing **PLAINTIFFS**' **REPLY TO DEFENDANT GOOGLE'S AMENDED COUNTERCLAIMS** was filed with the Clerk of the Court on August 27, 2009 using the CM/ECF system, which will send notification of such filing to the following at their email address on file with the Court.

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