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Paper 42
Date: December 6, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BUNGIE, INC.,
Petitioner,

v.

WORLDS INC.,
Patent Owner.

Case IPR2015-01319
Patent 8,082,501 B2

Before KARL D. EASTHOM, KERRY BEGLEY, and JASON J. CHUNG, *Administrative Patent Judges*.

CHUNG, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioner, Bungie, Inc., filed a Petition to institute an *inter partes* review of claims 1–8, 10, 12, and 14–16 of U.S. Patent No. 8,082,501 B2 ("the '501 patent"). Paper 3 ("Pet."). Patent Owner, Worlds Inc., filed a Preliminary Response pursuant to 35 U.S.C. § 313. Paper 12 ("Prelim. Resp."). Upon consideration of the Petition and Preliminary Response, on November 30, 2015, we instituted an *inter partes* review of claims 1–8, 10, 12, and 14–16 ("instituted claims"), pursuant to 35 U.S.C. § 314. Paper 14 ("Dec.").

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 20 ("PO Resp.")) and a Supplement to the Response (Paper 22 ("Supp. Resp.")). Petitioner filed a Reply to Patent Owner's Response. Paper 31 ("Reply"). Patent Owner filed a Motion to Exclude (Paper 33 ("Mot.") and Petitioner filed an Opposition to the Motion to Exclude (Paper 36 ("Opp.")), to which Patent Owner filed a Reply (Paper 38 ("Mot. Reply")). An oral hearing was held on August 17, 2016, and a transcript of the hearing is included in the record. Paper 41("Tr.").

We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, Petitioner has shown by a preponderance of the evidence that claims 1–8, 10, 12, and 14–16 of the '501 patent are unpatentable. *See* 35 U.S.C. § 316(e).

A. Related Matters

The '501 patent is involved in a district court proceeding, *Worlds Inc. v. Activision Blizzard, Inc.*, Case No. 1:12-cv-10576 (D. Mass.) ("District Court Case"). Paper 5. In addition, the '501 patent is related to the patents

at issue in IPR2015-01264, IPR2015-01268, IPR2015-01269, IPR2015-01321, and IPR2015-01325. *Id.*

B. The Asserted Grounds

We instituted *inter partes* review on the following grounds of unpatentability asserted by Petitioner:

Reference(s)	Basis	Instituted Claim(s)
Funkhouser (Ex. 1005)[1] and Sitrick (Ex. 1013)[2]	§ 103(a)[3]	1–6, 12, 14, and 15
Funkhouser, Sitrick, and Wexelblat (Ex. 1020)[4]	§ 103(a)	7 and 16
Funkhouser, Sitrick, and Funkhouser '93 (Ex. 1017)[5]	§ 103(a)	8 and 10
Durward (Ex. 1008)[6]	§ 102(a)	1–6, 12, 14, and 15
Durward and Wexelblat	§ 103(a)	7 and 16

[1] Thomas A. Funkhouser, *RING: A Client-Server System for Multi-User Virtual Environments*, *in* 1995 SYMPOSIUM ON INTERACTIVE 3D GRAPHICS (1995).
[2] U.S. Patent No. 4,521,014, issued June 4, 1985.
[3] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112–29, revised 35 U.S.C. § 103 and the relevant sections took effect on March 16, 2013. Because the application from which the '501 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version.
[4] U.S. Patent No. 5,021,976, issued June 4, 1991.
[5] Thomas A. Funkhouser & Carlo H. Séquin, *Adaptive Display Algorithm for Interactive Frame Rates During Visualization of Complex Virtual Environments*, *in* COMPUTER GRAPHICS PROCEEDINGS: ANNUAL CONFERENCE SERIES (1993).
[6] U.S. Patent No. 5,659,691, filed Sept. 23, 1993, issued Aug. 19, 1997.

Reference(s)	Basis	Instituted Claim(s)
Durward and Schneider (Ex. 1019)[7]	§ 103(a)	8 and 10

C. The '501 Patent

The '501 patent discloses a "client-server architecture" for a "graphical, multi-user, interactive virtual world system." Ex. 1001, [57], 3:6–8. In the preferred embodiment, each user chooses an avatar to "represent the user in the virtual world," *id.* at 3:25–27, and "interacts with a client system," which "is networked to a virtual world server," *id.* at 3:14–15. "[E]ach client . . . sends its current location, or changes in its current location, to the server." *Id.* at 3:40–44; *see id.* at 2:44–47. The server, in turn, sends each client "updated position information" for neighbors of the client's user. *Id.* at [57], 2:44–49, 3:40–44, 14:28–32.

The client executes a process to render a "view" of the virtual world "from the perspective of the avatar for that . . . user." *Id.* at [57], 2:40–42, 3:30–35, 4:54–56, 7:55–57. This view shows "avatars representing the other users who are neighbors of the user." *Id.* at [57], 2:42–44.

D. The Instituted Claims

Of the instituted claims 1–8, 10, 12, and 14–16, claims 1, 12, and 14 are independent claims. *Id.* at 19:20–20:65. Claim 1 is illustrative and reproduced below:

> 1. A method for enabling a first user to interact with other users in a virtual space, each user of the first user and the other users

[7] U.S. Patent No. 5,777,621, filed June 7, 1995, issued July 7, 1998.

being associated with a three dimensional avatar representing said each user in the virtual space, the method comprising the steps of:

customizing, using a processor of a client device, an avatar in response to input by the first user;

receiving, by the client device, position information associated with fewer than all of the other user avatars in an interaction room of the virtual space, from a server process, wherein the client device does not receive position information of at least some avatars that fail to satisfy a participant condition imposed on avatars displayable on a client device display of the client device;

determining, by the client device, a displayable set of the other user avatars associated with the client device display; and

displaying, on the client device display, the displayable set of the other user avatars associated with the client device display.

II. ANALYSIS

A. Level of Ordinary Skill in the Art

We begin our analysis by addressing the level of ordinary skill in the art. Petitioner argues, and Dr. Zyda opines, that a person of ordinary skill in the art relevant to the '501 patent would have had "through education or practical experience, the equivalent of a bachelor's degree in computer science or a related field and at least an additional two years of work experience developing or implementing networked virtual environments." Pet. 7; Ex. 1002 ¶ 55. Mr. Pesce similarly testifies that a person of ordinary skill in the art would have had "at least a bachelor's degree or equivalent in computer science, with two or more years of experience in coding related to both virtual environments and computer networking." Ex. 2017 ¶ 33.

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