

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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BUNGIE, INC.,  
Petitioner,

v.

WORLDS INC.,  
Patent Owner.

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Case IPR2015-01325  
Patent 8,145,998 B2

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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 1–3, 7, 8, and 11–20 (“the challenged claims”) of U.S. Patent No. 8,145,998 B2 (“the ’998 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 1–3, 7, 8, 11–18, and 20 (“instituted claims”), pursuant to 35 U.S.C. § 314. Paper 13 (“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 and 20 of the ’998 patent are unpatentable. *See* 35 U.S.C. § 316(e).

### A. *Related Matters*

The ’998 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 6. In addition, the ’998 patent is the subject of

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IPR2015-01321 and related to the patents at issue in IPR2015-01264, IPR2015-01268, IPR2015-01269, and IPR2015-01319. *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)
Durward (Ex. 1008), <sup>1</sup> Tracey (Ex. 1025), <sup>2</sup> and Marathon (Ex. 1021) <sup>3</sup>	§ 103(a) <sup>4</sup>	1–3, 7, 8, 11, 12, 16, 18, and 20
Durward, Tracey, Marathon, and Schneider (Ex. 1019) <sup>5</sup>	§ 103(a)	13–15
Durward, Tracey, Marathon, and Wexelblat (Ex. 1020) <sup>6</sup>	§ 103(a)	17

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<sup>1</sup> U.S. Patent No. 5,659,691, filed Sept. 23, 1993.

<sup>2</sup> David Tracey, *Touring Virtual Reality Arcades*, Int’l Herald Trib. (Paris), May 7, 1993, at 8.

<sup>3</sup> Marathon, Bungie Products Software Corporation (1994).

<sup>4</sup> 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 ’998 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version.

<sup>5</sup> U.S. Patent No. 5,777,621, filed June 7, 1995.

<sup>6</sup> U.S. Patent No. 5,021,976, issued June 4, 1991.

*C. The '998 Patent*

The '998 patent is directed to a graphical, multi-user, interactive virtual world system that includes highly scalable architecture. Ex. 1001, Abs. The system disclosed in the '998 patent displays avatars representing other users neighboring the user viewing the virtual world. *Id.* Motion information from the remote users' avatars is transmitted to a central server process that provides positions updates to client processes for neighbors of the user at that client process. *Id.* The client process also determines which background objects to render. *Id.*

*D. The Instituted Claims*

Of the instituted claims 1–3, 7, 8, 11–18, and 20, claims 1, 2, and 18 are independent claims. Claim 1 is illustrative and reproduced below:

1. A method for displaying interactions of a local user avatar of a local user and a plurality of remote user avatars of remote users interacting in a virtual environment, the method comprising:

receiving, at a client processor associated with the local user, positions associated with less than all of the remote user avatars in one or more interaction rooms of the virtual environment, wherein the client processor does not receive position information associated with at least some of the remote user avatars in the one or more rooms of the virtual environment, each avatar of the at least some of the remote user avatars failing to satisfy a condition imposed on displaying remote avatars to the local user;

generating, on a graphic display associated with the client processor, a rendering showing position of at least one remote user avatar; and switching between a rendering on the graphic display that shows at least a portion of the virtual environment to the local user from a perspective of one of the remote user

avatars and a rendering that allows the local user to view the local user avatar in the virtual environment.

## 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 '998 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. 10; Ex. 1002 ¶ 58. 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.

The parties’ proposals for the level of ordinary skill in the art have slight differences in wording, yet we do not find them to have meaningful distinctions (e.g., “at least” two years versus “two or more years,” “networked virtual environments” versus “virtual environments and computer networking”). Neither party asserted that there is any such distinction. Based on the testimony of the parties’ experts as well as our review of the '998 patent, the types of problems and solutions described therein, and the prior art involved in this proceeding, we adopt the following as the level of ordinary skill in the art: the equivalent, through education or practical experience, of a bachelor’s degree in computer science or a related field, and at least two years of experience developing, coding, or

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