Trials@uspto.gov
Tel: 571-272-7822

Paper: 8
Entered: August 14, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NIANTIC, INC.,
Petitioner,

v.

BARBARO TECHNOLOGIES, LLC,
Patent Owner.

Case IPR2019-00668
Patent 7,373,377 B2

Before THOMAS L. GIANNETTI, NEIL T. POWELL, and JOHN R. KENNY, *Administrative Patent Judges.*

POWELL, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

Petitioner filed a Petition (Paper 1, "Pet.") requesting an *inter partes* review of claims 1–3, 5–8, 10–13, 15–17, 19, 24 and 25 of U.S. Patent No. 7,373,377 B2 (Ex. 1001, "the '377 patent"). Patent Owner filed a Preliminary Response. Paper 7 ("Prelim. Resp.").

Under 35 U.S.C. § 314, the Board "may not authorize an *inter partes* review to be instituted unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." Upon consideration of the Petition and the Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on its challenge to any of claims 1–3, 5–8, 10–13, 15–17, 19, 24 and 25.

II. BACKGROUND

A. Related Matters

The parties identify the following related district court action:

> *Barbaro Technologies, LLC v. Niantic, Inc.*, Case No. 3:18-cv-02955-RS (N.D.Cal.) ("related district court litigation").

Pet. 1; Paper 4, 2.

B. The Asserted Ground of Unpatentability

Petitioner contends that claims 1–3, 5–8, 10–13, 15–17, 19, 24 and 25 of the '377 patent are unpatentable based on the following ground:

Reference	Statutory Basis	Challenged Claims
March-097[1] "in view of the knowledge of one of ordinary skill in the art"	35 U.S.C. § 103(a)	1–3, 5–8, 10–13, 15–17, 19, 24 and 25

Petitioner also relies on the Declaration of Stephen Gray (Ex. 1002).

C. The '377 Patent

The '377 patent discloses "an interactive software application platform which can be used in entertainment, business, publishing, and other applications to provide a virtual and real world experience to the user by integrating audio, video, two dimensional (2D), and three dimensional (3D) technology, and other applications or services." Ex. 1001, 1:34–39. Noting user interest in virtual environments for various purposes, the '377 patent laments a lack of "a real world experience" in virtual environments. *Id.* at 1:19–28. The '377 patent discloses a desire for "a way to integrate audio, video, 2D, and 3D technology in order to maximize the real world experience for the user." *Id.* at 1:28–30. According to the '377 patent,

> the program of the present invention injects real time data, such as sports scores, live sports events, film, news, etc., into a virtual thematic environment which includes both audio and video, and also integrates mini-applications, such as word processing, mutual fund calculators, spreadsheets, static purchasing (i.e.,

[1] Published U.S. Patent Application No. 2005/0043097 A1, pub. Feb. 24, 2005 (Ex. 1005).

> static e-commerce application, and any other type of application that can be scaled or as a demo), e-mail, and the like, into the virtual thematic environment, without a noticeable delay.

Id. at 6:55–64.

In an embodiment, a user enters a thematic environment, which could be a game or a specific website, "such as a museum website, store, school, hospital etc., and is taken into a 3D virtual world." *Id.* at 7:6–13. For example, a game could have a geographic environment that asks a user to pick a city, to which the game would then take the user. *Id.* at 7:14–19. Then, the program would enable the user to navigate a "2D and/or 3D and/or integrated graphical representation of the actual real world environment and interact with it." *Id.* at 7:22–26. Some applications may integrate into the virtual thematic environment audio and video, and

> the user may "enter" a store, for example, and be able to choose a DVD or a CD, and make a particular video or musical selection, and the program will show the video in the virtual thematic environment and play the audio over the user's computer system. Thus, the user may be able to watch films, movies, etc. on a screen, for example, within the thematic environment.

Id. at 8:52–63. "Thus, the user can choose to change the TV program being shown, or the music being played in the thematic environment, by accessing the options available (i.e., displayed on the screen)." *Id.* at 8:64–67. Additionally, the '377 patent discloses providing "'mini-applications' to be accessible within the virtual world such that the user can utilize word processing programs, e-mail, spreadsheets, attend and participate in an auction, etc." *Id.* at 9:61–65.

The '377 patent uses software to implement its disclosures. *Id.* at 11:37. One embodiment of software architecture is illustrated in Figure 1 (*id.* at 6:25–27), which is reproduced below.

FIG. 1

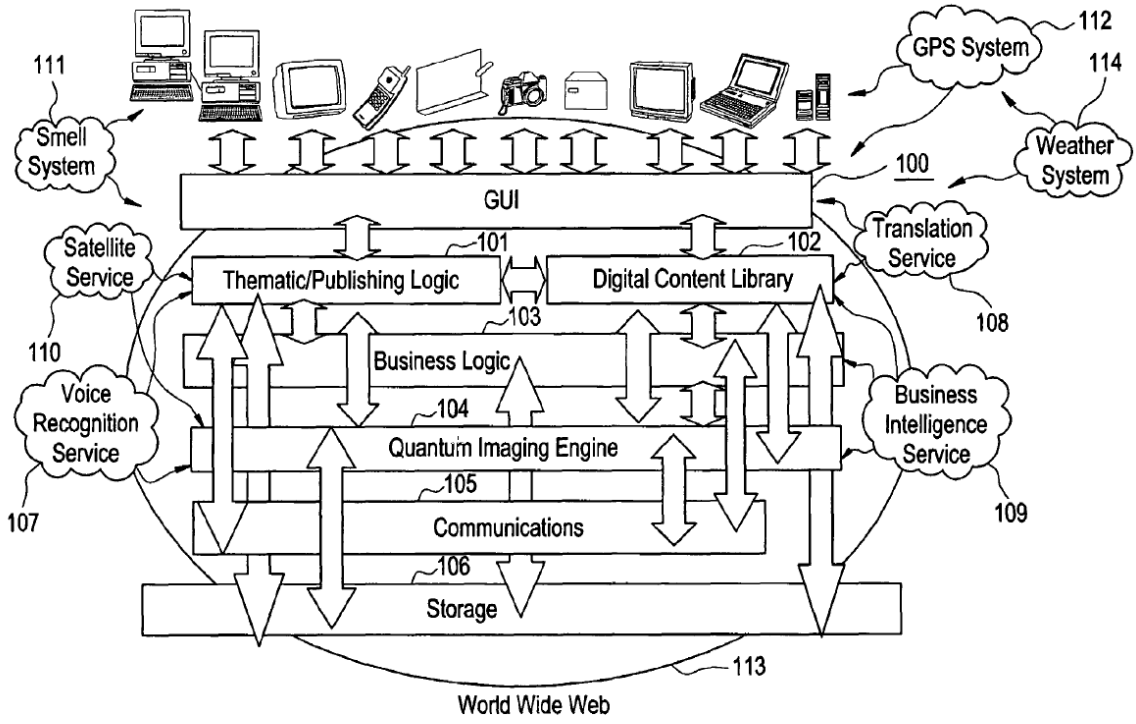


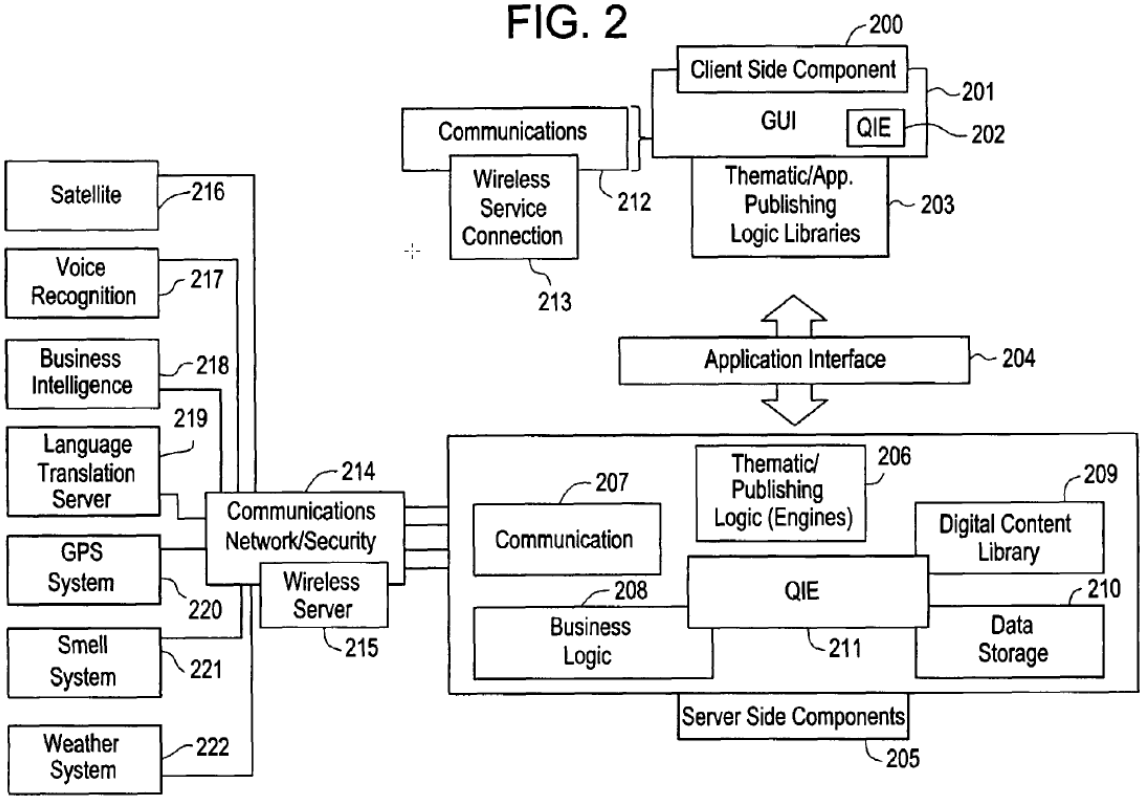
Figure 1 shows an interactive software platform with a logical architecture having six levels. *Id.* at 6:25–27. These layers include "1) a graphical user interface (GUI) 100, 2) a Thematic/Publishing Logic 101 and a Digital Content Library 102, 3) a Business Logic 103, 4) a thematic or zone application builder and interpreter (i.e., a Quantum Imaging Engine 104), 5) Communications 105, and 6) a Data Storage 106." *Id.* at 11:49–54.

Additionally, the architecture relies on six service area modules distributed across the internet. *Id.* at 11:43–48. These modules include "1) voice recognition 107, 2) language translation services 108, 3) business intelligence 109, 4) satellite transmission 110, [5)] a synthesized smell

system 111, and (6) a GPS system 112, fully distributed across the world wide web (WWW)." *Id.* at 11:61–66.

In some embodiments, implementation may occur in a client-server context. *Id.* at 12:14–15. A client-server arrangement appears in Figure 2 (*id.* at 6:28–30), which is reproduced below.

FIG. 2



As shown in Figure 2, an example client-server arrangement includes client system 200 and server system 205, which interact with one another via Application Interface 204. *Id.* at 14:46–47.

D. Illustrative Claim

Of the challenged claims, claims 1, 15, 24, and 25 are independent. Each of claims 2, 3, 5–8, 10–13, 16, 17, and 19 depends, directly or indirectly, from one of independent claims 1 and 15. Claim 1 is illustrative of the challenged claims. Claim 1 recites:

1. A method of integrating real-time information into a virtual thematic environment using a computer system including a client and a server, comprising:

providing a graphics user interface (GUI) module for use in the client system;

providing a quantum imaging environment (QIE) module in one of the client or the server system;

providing a digital logic library in one of the client or the server system;

providing a primary application in the client system;

providing a first user interface that is associated with the primary application;

sending a request for first real-time information via the QIE module to the world wide web;

obtaining the first real-time information via the world wide web;

downloading the first real-time information from the world wide web into the primary application;

providing access to the first real-time information within the virtual thematic environment via the first user interface;

providing at least one secondary application within the primary application at the client system;

sending a request for second real-time information via the QIE module;

obtaining the second real-time information via the world wide web;

downloading the second real-time information into the secondary application;

enabling a user to access the at least one secondary application through the first user interface; and

enabling the user to control at least one secondary application through a second user interface.

Ex. 1001, 43:28–60.

III. ANALYSIS

A. Claim Construction

1. Law of Claim Construction

A recent amendment to the rules changing the claim construction standard applies here because the Petition was filed after November 13, 2018, the effective date of the amendment. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018). Thus, for this *inter partes* review, the Board applies the same claim construction standard as that applied in federal courts in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b).

In this context, claim terms "are generally given their ordinary and customary meaning" as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317.

Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. America Sci. & Eng'g, Inc.*, 200 F.3d 795, 803

(Fed. Cir. 1999)). ., *Inc. v. Am. Sci. & Eng'g, Inc*., 200 F.3d 795, 803 (Fed. Cir. 1999)).

2. Proposed District Court Constructions

Petitioner addresses the meaning of a number of recitations in the challenged claims. Pet. 12–14. First, Petitioner explains that, in the related district court litigation, Petitioner and Patent Owner have agreed on the meaning of the claim language "enabling a user to access the at least one secondary application through the first user interface." *Id.* at 13. Petitioner notes that, for this proceeding, it is using this agreed-to construction.

For other claim language, in the related litigation, the parties disagreed. *Id.* at 13–14. For example, Petitioner notes the parties disagreed regarding the proper construction of the term "virtual thematic environment." *Id.* at 14. Petitioner explains that

> In the related district court litigation, [Patent Owner] asserts that a "virtual thematic environment" means "a theme-based virtual computer interface which may take the form of a game"; [Petitioner] asserts that this term is indefinite. Ex. 1009, 3.

Id. Petitioner indicates that in the related litigation a similar position with respect to certain other claim language. *Id.* at 13–14.

certain other claim language. *Id*. at 12.

3. Patent Owner's Proposed Construction for Virtual Thematic Environment

For this Decision, we do not need to construe any term. We do, however, address the proposed construction for "virtual thematic environment" that Patent Owner provided in the related litigation, and we address whether Petitioner has shown that the asserted prior art would render obvious the challenged claims with that construction. In this proceeding,

neither party has expressly requested that we construe "virtual thematic environment," and neither party expressly proposes a construction of the term. As Petitioner notes, however, in the related litigation, Patent Owner proposed construing a "virtual thematic environment" as "a theme-based virtual computer interface which may take the form of a game." Pet. 13; Ex. 1009, 3. Although in the related litigation, Petitioner argued the term was indefinite, in this proceeding, Petitioner purports to demonstrate the obviousness of the challenged claims using this proposed construction: "[f]or purposes of this petition, [Petitioner] demonstrates that the asserted prior art meets [Patent Owner's] proposed construction [for virtual thematic environment]." Pet. 14; *see also* Ex. 1009, 3.

As set forth below, we determine that Petitioner has not sufficiently shown that the asserted prior art would render the challenged claims obvious with Patent Owner's proposed construction for "virtual thematic environment."

B. Alleged Obviousness over March-097 in view of the knowledge of one of ordinary skill in the art

1. Overview of March-097

March-097 discloses a system and method providing a virtual game world that allows plural players to play multiple games. Ex. 1005, (57). Figure 1 of March-097 is reproduced below.

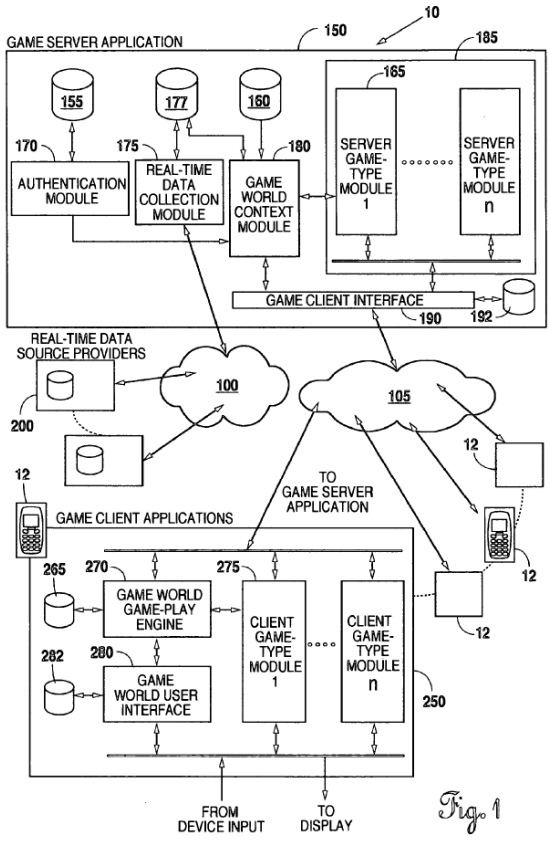


Figure 1 shows multi-player game system 10, "which preferably comprises at least one networked computer (not shown) running an instance of a Game Server Application (GSA) 150 interconnected by a network 105 with a plurality of networked devices 12 simultaneously running an instance of a Game Client Application (GCA) 250." *Id.* ¶ 41.

GSA 150 serves as the central element of the game, allowing multiple GCAs 250 to interact with it. *Id.* GSA 150 "maintains all of the common

aspects of a virtual game world." *Id.* GSA 150 preferably includes Authentication Module 170, Real-Time Data Collection Module 175, Game Client Interface Module 190, Game World Context Module 180, and Server Game-Type Module Framework 185 "wherein a number of Server Game-Type Modules 165 are inserted." *Id.* ¶ 42. Authentication Module 170 preferably keeps database 155 of registered users for validating users when they log in to play. *Id.* "Game World Context Module 180 provides a means for maintaining and providing game play in an encompassing, homogeneous virtual Game World in which the game players exist and interact in an ongoing game." *Id.* ¶ 43. Server Game-Type Module Framework 185 is a framework that allows developing multiple Server Game-Type Modules 165 related to the Game World implemented and defined by Game World Context Module 180. *Id.* ¶ 44. A distinct and unique multi-player game is preferably implemented by each Server Game-Type Module 165. *Id.* Preferably, a plurality of portals to the same multi-player games distributed amongst various locations in the Game World are provided by Server Game-Type Module Framework 185. *Id.* Interactions related to server Game-Type Modules 165 are preferably properly funneled through Game Client Interface 190. *Id.*

GCAs 250 show users visual aspects of the game, processing the users' input. *Id.* ¶ 41. By communicating with GSA 150 over network 105, GCAs 250 enable users to engage with the game, as well as other users. *Id.* GCA 250 preferably includes Game World Play Engine 270, Game World User Interface 280, as well as a set of Client Game-Type Modules 275. *Id.* ¶ 50. Preferably, Game World Play Engine 270 includes "Game World Portal Location Database 265 that holds a static or dynamic mapping of

Game World portal locations to Game-Type ID's specifying which game-type is played in each portal." *Id.* A preferred Client Game-Type Module 275 is shown in Figure 10 (*id.* ¶ 51), which is reproduced below.

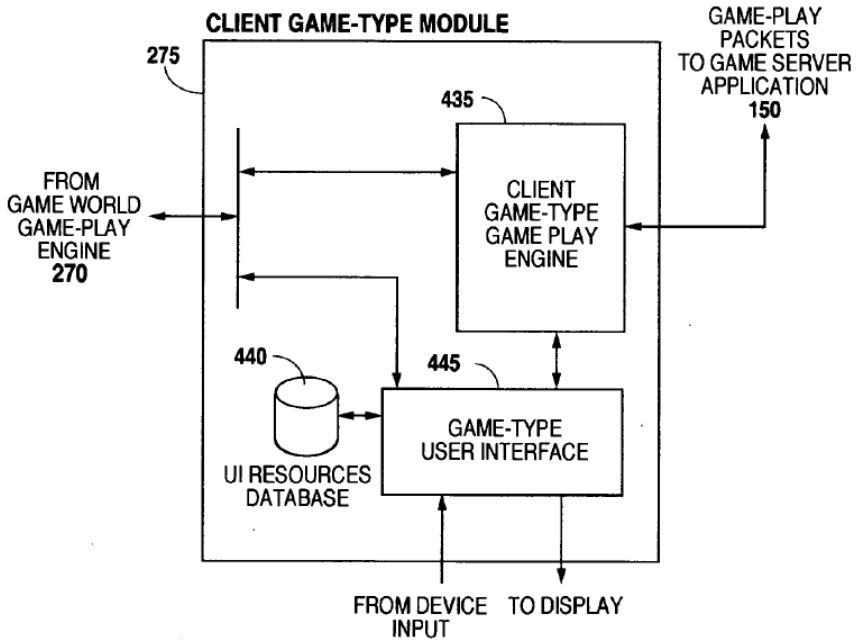


Fig.10

Figure 10 shows a schematic block diagram of Client Game-Type Module 275, which includes Client Game-Type Game Play Engine 435, Game-Type User Interface 445, and database 440. *Id.* ¶ 31, 51. Employing Game-Type User Interface, Client Game-Type Game Play Engine 435 interacts with the user during game play, coordinating game play over network 105, "preferably via Game Client Interface 190." *Id.* ¶ 51. Preferably, Client Game-Type Modules 275 are plug-in mechanisms and provide user interface elements and program code to implement a Game-Type multi-player game client. *Id.* ¶ 50.

When a user goes to a charted portal location and decides to enter, Game World Play Engine 270 relays to GSA 150 the request "for a game of type Game-Type in the specified Game World location." *Id.* ¶ 50. When GSA 150 grants the game request, Client Game-Type Module 275 preferably receives control from Game World Game Play Engine 270. Preferably, Game World User Interface 280 sends user inputs to Game World Game Play Engine 270, while continually employing graphical user interface (GUI) elements to show the user certain aspects of game play. *Id.* During game play, "Client Game-Type Module 275 preferably takes control of the device's user interface and communicates game play over the network 105 to the Server Game-Type Modules 165 via Game Client Interface 190." *Id.*

2. Discussion

Petitioner asserts that March-097 teaches a "virtual thematic environment" when that term is given Patent Owner's proposed construction. Pet. 14 ("[Petitioner demonstrates the asserted prior art meets [Patent Owner's] proposed construction"), 20 ("March-097 discloses 'real-time information' in a 'virtual thematic environment' including a 'client and a server.'").

Patent Owner argues that Petitioner does not explain adequately how March-097 meets Patent Owner's proposed construction. Prelim. Resp. 26. According to Patent Owner, instead of explaining how March-097 allegedly teaches a theme-based computer interface which may take the form of a game, Petitioner merely asserts that March-097 "discloses a client-server

system for integrating real-time information into a virtual environment." *Id.* (quoting Pet. 21).

We agree with Patent Owner that Petitioner has not demonstrated sufficiently that March-097 teaches a "virtual thematic environment" With Patent Owner's proposed construction. Indeed, when addressing this claim limitation, the Petition does not even allege that March-097 teaches a virtual computer interface that is theme-based, much less provide a persuasive explanation or evidence that any virtual computer interface March-097 teaches is theme-based. *See* Pet. 20–21, 39–40, 58–59, 62, 65–66. Therefore, because we find that Petitioner has not shown sufficiently that March-097 meets the proposed construction of "virtual thematic environment," Petitioner has not demonstrated a reasonable likelihood of establishing that the challenged claims would have been obvious over March-097 "in view of the knowledge of one of ordinary skill in the art." *See* 37 C.F.R. § 42.104(b)(4) (requiring that a petition must identify "[h]ow the construed claim is unpatentable under the statutory grounds identified in paragraph (b)(2) of this section. The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon.").

The closest the Petition comes to addressing the theme-based requirement of the proposed construction of "virtual thematic environment" appears in Section VI.A, which provides a general discussion of what the '377 patent teaches. Pet. 6–9. There, without actually addressing the theme-based requirement in Patent Owner's proposed construction, the Petition asserts that in the '377 patent a "'virtual thematic environment' broadly includes any number of things, including a 'gaming environment' (*id.*, 7:8),

'a particular website, such as a museum website, store, school, hospital etc.' (*id*., 7:10-13), 'a travel website' (*id*., 8:37-38), a video or music store (*id*., 8:52-57), 'a holographic environment' (*id*., 10:5-7), or 'any virtual or holographic environment' (*id*., 11:30-34)." providing certain examples thereafter. *Id.* at 6–7. For multiple reasons, this discussion, however, does not cure Petitioner's failure to explain adequately how the construed claim is unpatentable.

First, the sections of the Petition devoted to explaining how March-097 allegedly teaches the construed claim limitation do not cite to the passages cited above. *See* Pet. 20–21, 39–40, 58–59, 62, 65–66. Thus, to the extent that Petitioner intended to rely upon those passages cited in Section IV.A as evidence that March-097 teaches a virtual thematic environment, Petitioner improperly "place[d] the burden on us to sift through the information presented by Petitioner[]" (*Google Inc. and Twitter, Inc. v. EVERYMD.COM LLC*, IPR2014-00347, Paper 9, at 23–25 (PTAB May 22, 2014)), rather than providing a sufficiently clear explanation. 35 U.S.C. § 312(a)(3) (requiring that "the petition identifies in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim."); 37 C.F.R. § 42.22(a)(2) (requiring a petition to include "[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of evidence including material facts, and the governing law, rules, and precedent"); 37 C.F.R. § 42.104(b)(4).

Second, the passages cited in Section VI.A do not indicate that March-097 discloses a theme-based virtual interface. Those passages read as follows:

> In one embodiment consistent with the present invention, a thematic computerized environment, such as the gaming environment described in U.S. patent application Ser. No. 10/272,408, can be accessed by one or more users over the internet. The user enters the thematic environment, whether it is a game, or a particular website, such as a museum website, store, school, hospital etc., and is taken into a 3D virtual world.

Ex. 1001, 7:7–13.

> In another embodiment consistent with the present invention, the virtual environment can be a travel website, for example, such that when the user accesses different cities, the program can take the user to that city so that the user can have the real world experience of walking down a street and seeing the actual buildings that would be represented in the real world environment.

Id. at 8:37-38.

> In other applications which integrate audio and video into the virtual thematic environment, the user may "enter" a store, for example, and be able to choose a DVD or a CD, and make a particular video or musical selection, and the program will show the video in the virtual thematic environment and play the audio over the user's computer system.

Id. at 8:52–57.

> In another embodiment consistent with the present invention, the thematic application can be presented in a holographic environment.

Id. at 10:5–7.

> The sheer number of applications is limitless, and it can be seen that one of ordinary skill in the art would be able to apply the basic technology of the present invention to almost any virtual or

> holographic environment to advance a user's thematic application experience.

Id. at 11:30–34.

These passages do not set forth how March-097 purportedly discloses a theme-based virtual interface; instead, they merely indicate that thematic environments can include various elements or actions such as games, websites, walking down a street, stores, and holographic environments. And the mere fact that a virtual thematic environment might include those elements or actions does not necessarily mean that anything with such elements or actions would be a thematic environment. To prove the latter, Petitioner would need to submit persuasive evidence of that fact, which it has not done.

Therefore, we determine that Petitioner has not shown sufficiently that March-097 teaches a "virtual thematic environment," and, thus, Petitioner has not demonstrated a reasonable likelihood of establishing that the challenged claims would have been obvious over March-097 "in view of the knowledge of one of ordinary skill in the art." *See* 37 C.F.R. § 42.104(b)(4) (requiring that a petition must identify "[h]ow the construed claim is unpatentable under the statutory grounds identified in paragraph (b)(2) of this section. The petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon.").

IV. CONCLUSION

For the foregoing reasons, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness assertions.

V. ORDERS

It is hereby

ORDERED that the Petition is denied and we do not institute *inter partes* review.

PETITIONER:

Xin-Yi Zhou
vzhou@omm.com

Daniel Silverman
dsilverman@omm.com

PATENT OWNER:

Jordan Sigale
jsigale@dunlapcodding.com

Marc Brockhaus
mbrockhaus@dunlapcodding.com

Douglas Sorocco
dsorocco@dunlapcodding.com

ANN ROBL
arobl@dunlapcodding.com