

Game and Technology Co. v. Activision Blizzard – a look at how *inter partes* reviews change the game in patent suits

Scott M. Kelly* and Alex Nealon†

Abstract: A June 2019 appellate decision marked the end of the patent assertion by Game and Technology Co. (GAT) against Activision Blizzard and Riot Games.¹ The patents at issue related to equipping virtual avatars with game items. Activision Blizzard was able to successfully invalidate the patent through *inter partes* review (IPR) proceedings at the US Patent and Trademark Office. This case illustrates the important role that IPRs play in US patent litigation, as well as the double-edged sword of obtaining very broad patent claims. The article walks through the history of the assertion, the invalidity arguments at the USPTO, and the final decision on appeal to the Federal Circuit, and discusses how IPRs may provide an effective response to patent assertions in the US.

Keywords: patents, intellectual property, video games, inter partes reviews, PTAB

1. Introduction

In July 2015, Game and Technology Ltd. (GAT) sued Activision Blizzard Inc. (Blizzard) and Riot Games Inc. (Riot) over U.S. Patent No. 8,253,743 (the '743 patent). GAT argued that *World of Warcraft* and *League of Legends* incorporated patented technology relating to game avatars, referred to in the '743 patent as 'gamvatars'. However, the cases were put on hold after the defendants petitioned the US Patent and Trademark Office for *inter partes* review (IPR) to decide the validity of the '743 patent.

The Patent Trial and Appeal Board (PTAB) of the US Patent and Trademark Office found that the '743 patent was invalid as obvious over the prior art, specifically the user manual for *Diablo II* (an earlier Blizzard game). GAT appealed that decision to the US Court of Appeals for the Federal Circuit, arguing that the PTAB had made critical errors in how it read the terms of the patent claims, and that the PTAB improperly found obviousness over a single reference instead of requiring a combination of references. The Federal Circuit disagreed, finding that the PTAB had ruled properly on each point and affirming the invalidity decision.

This case serves as a reminder that patent claim breadth can cut both ways, allowing a patentee to cast a wider net for infringement but rendering the patent more vulnerable to prior art invalidity attacks. And for defendants accused of patent infringement, this case illustrates the strategic benefits of using *inter partes* reviews to remove the issue of patent validity to a panel of expert administrative patent judges while pressing pause on the infringement question in federal court.

2. The weapon – US Pat. No. 8,253,743 to Lee

The '743 patent, titled 'Method and System for Providing Character Having Game Item Functions', relates to the customization of character avatars in online games.² In particular, the specification of the '743 patent details an online website environment where character 'avatars' can be further enhanced with various items to create 'gamvatars' that allow them to use associated 'game item functions' in a game. The items enable a player to activate bonus abilities or functions 'so as to give an advantageous condition to the user in the game'.³

* Scott is a US intellectual property attorney and a Partner at Banner Witcoff, Washington DC.

† Alex is a Research Assistant at Banner Witcoff, and a second-year law student at Georgetown University Law Center, Washington DC.

1 *Game and Technology Co. Ltd. v. Activision Blizzard Inc. and Riot Games, Inc.*, 926 F.3d 1370, Case No. 2018-1981 (US Court of Appeals for the

Federal Circuit, 21 June 2019), on appeal from the Patent Trial and Appeal Board, *Inter Partes* Review Case No. IPR2016-01885.

2 '743 patent at 1:19–21.

3 '743 patent at 3:5–9, 5:30–40.

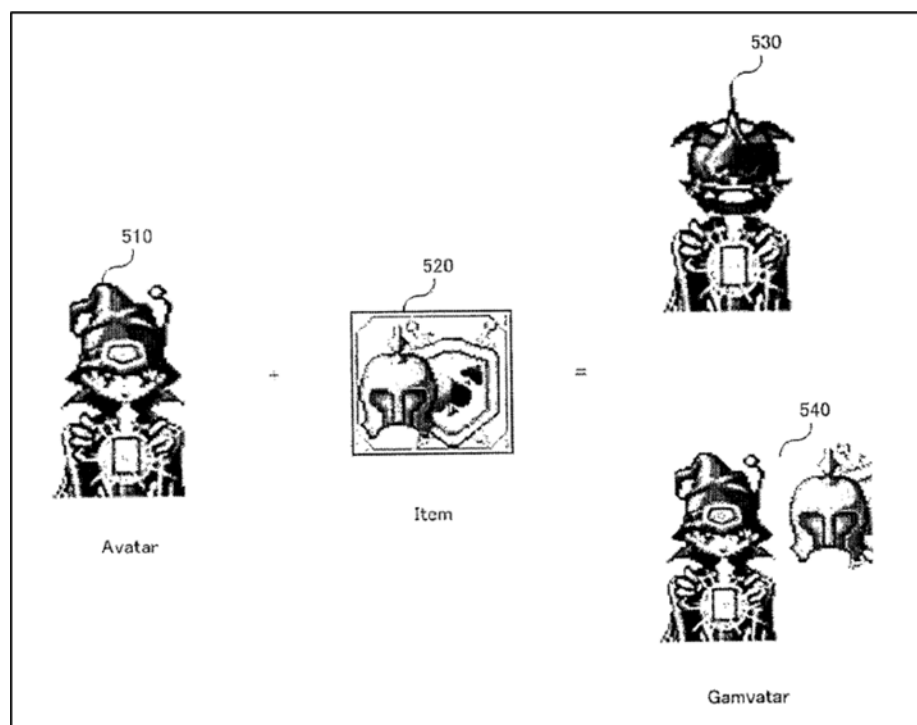


Figure 1 '743 Patent, Fig 5

These items can be of limited uses or duration, and may be exhausted after use and discarded from the avatar. In a particular example, the item could be a 'black knight item' that transforms the avatar into a 'black knight gamavatar' that can 'restor[e] lost money in poker type games'.⁴

Yet the scope of a patent is determined by the claims. And while examples in the specification can inform the meaning of those claims, the claim language defines what is covered by the patent.⁵ Claim 1 of the '743 patent is illustrative and recites:

1. A method for generating a character associated with a character generating system comprising a gamavatar provider, a gamavatar controller, and a game server, the method comprising: providing an avatar to a user accessing an avatar shop via a network, (1) **the avatar comprising multiple layers for displaying avatar functions or performing game item functions** by using the respective layers; and

(2) **combining each of a plurality of game item functions with the avatar by adding the respective layers to the avatar to create a gamavatar** associated with the plurality of the game item functions,

wherein the gamavatar is configured to be used to perform the plurality of the game item functions and each of the

plurality of game item functions being combined with the respective layers is exhausted in response to detection of each time of using the each of the plurality of game item functions associated with playing a game provided by the game server.⁶

As it developed before the PTAB and the Federal Circuit, the key terms in the '743 patent claims are 'layers' as used in part (1) above, and 'gamavatar' as used in part (2) of the claim.

3. The attack – GAT sues Blizzard and Riot for infringement by *World of Warcraft*

GAT's attack on Blizzard started in July 2015, when GAT filed a complaint for patent infringement in the US District Court for the Eastern District of Texas, asserting the '743 patent and two other related patents.⁷ Blizzard was not the only company to draw GAT's attention, as the same day they filed infringement complaints against Riot Games, Inc. and Valve Corporation as to the '743 patent, and against Wargaming.net LLP on other patents.⁸

⁴ '743 patent at 11:1-5.

⁵ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). ('It is a "bedrock principle" of patent law that "the claims of a patent define the invention to which the patentee is entitled the right to exclude".')

⁶ '743 patent, claim 1 (emphasis and reference numbers added).

⁷ *Game and Tech. Co., v. Activision Blizzard, Inc.*, Case No. 2:15-cv-01257 (E.D. Tex.).

⁸ *Game and Tech. Co., v. Riot Games, Inc.*, Case No. 2:15-cv-01258 (E.D. Tex.); *Game and Tech. Co., v. Valve Corp.*, Case No. 2:15-cv-01259 (E.D. Tex.); and *Game and Tech. Co., v. Wargaming.net LLP*, Case No. 2:15-cv-01260 (E.D. Tex.).

GAT's complaint against Blizzard accused *World of Warcraft* of incorporating the technology claimed in the '743 patent.⁹ Also included were claims against *Diablo III* as to the other patents-in-suit.¹⁰ The alleged infringement was lightly pled, without so much as a sentence about what feature in *World of Warcraft* allegedly corresponded to the claimed technology. Similarly, GAT's complaint against Riot accused *League of Legends* of infringing the '743 patent without further explanation.¹¹ Blizzard and Riot filed motions to transfer venue to the Central District of California, which were granted.¹²

Blizzard and Riot filed a petition for *inter partes* review of the '743 patent, as discussed further below, and the court agreed to stay the litigations pending outcome of the IPR in November 2016.¹³

4. *Inter partes* reviews (IPRs)

The America Invents Act, passed by Congress in 2011, created the *inter partes* review procedure to allow for the challenge of issued patents.¹⁴ IPRs were designed as a lower cost alternative to long, expensive lawsuits with patent owners who hold bad patents.

An IPR is a trial proceeding that may be conducted at the USPTO's Patent Trial and Appeal Board (PTAB) to review the patentability of one or more claims in a patent. However, this review is limited to those challenges that may be brought under 35 U.S.C. §§ 102 (anticipation) or 103 (obviousness).¹⁵ And the review is limited to prior art that consists of other patents or printed publications.¹⁶

IPRs offer several benefits to accused infringers. The IPR if timely filed may lead to a stay in a district court action and may avoid costly discovery and arguments about infringement, if the IPR results in a determination of invalidity. Compared to a jury or a generalist district court judge, the specialized administrative patent judges (APJs) may be better able to grasp nuanced technical arguments or see through (technically) meaningless distinctions. Although no longer the case today, at the time Blizzard and Riot filed their IPR they were also able to take advantage of a more generous 'broadest reasonable interpretation' claim construction standard then

employed by the PTAB.¹⁷ Reading the claims broadly for purposes of assessing validity allowed accused infringers some wiggle room to argue invalidity under one construction while arguing non-infringement under another, slightly more narrow construction.

IPRs are not without tradeoffs. An accused infringer who wants to file an IPR must do so within one year of being served with a complaint for infringement.¹⁸ And the issuance of a final written decision in the IPR causes estoppel to attach, preventing the petitioner from arguing invalidity in district court on grounds they 'raised or reasonably could have raised' in the IPR.¹⁹ IPRs also allow patent owners an opportunity to amend claims, and IPR procedures have been recently revised to make amendments easier on patent owners.²⁰

5. The counterattack – Blizzard and Riot bring in *Diablo II*

In September 2016, Blizzard and Riot filed a joint IPR petition against the '743 patent. The petition argued that claims 1-11 of the '743 patent were invalid as obvious over the user manual for Blizzard's *Diablo II*, and separately over the manual for the game *Dark Age of Camelot*.²¹ Because the *Diablo II* manual was the subject of the PTAB's final written decision and Federal Circuit appeal, and the *Dark Age of Camelot* grounds were deemed redundant, this discussion focuses on the *Diablo II* grounds.

The *Diablo II* user manual accompanied Blizzard's popular action role-playing video game when it was released in the year 2000. The manual describes how to play the game, and detailed the in-game inventory system where players were able to customize their character by equipping items such as armour and weapons. These items would be displayed virtually layered onto the player character on the inventory screen, and equipped items would change how the player character would interact with the world (generally by chopping through waves of demons and the undead). Some items were consumables having limited uses, such as throwing potions or javelins.

9 *Game and Tech. Co., v. Activision Blizzard, Inc.*, Complaint, Docket Entry 1 at p. 9, 15, Case No. 2:15-cv-01257 (E.D. Tex.).

10 *Ibid.*

11 *Game and Tech. Co., v. Riot Games, Inc.*, Complaint, Docket Entry 1 at pp. 7-8, Case No. 2:15-cv-01258 (E.D. Tex.).

12 *Game and Tech. Co., v. Activision Blizzard, Inc.*, Order, Docket Entry 72, Case No. 2:15-cv-01257 (E.D. Tex.).

13 *Game and Tech. Co., v. Activision Blizzard, Inc.*, Docket Entry 110, Case No. 2:16-cv-06499 (C.D. Cal.).

14 Leahy-Smith America Invents Act § 319(c)(2)(A) ('AIA'), Pub L. No. 112-29, 125 Stat 284, 304 (2011).

15 37 C.F.R. § 42.104(b)(2).

16 *Ibid.*

17 The PTAB shifted to the narrower *Phillips* standard employed in district court litigation in November 2018. Office Patent Trial Practice Guide, 84 Fed. Reg. 33, 925 (July 16, 2019) (updated July 2019).

18 37 C.F.R. § 42.102.

19 37 C.F.R. § 42.73(d)(1). Courts remain split on the exact extent of this estoppel.

20 Office Patent Trial Practice Guide, 84 Fed. Reg. 33, 925 (July 16, 2019) (updated July 2019).

21 *Activision Blizzard, Inc. and Riot Games, Inc. v. Game and Tech. Co.*, Petition, paper 1 at 4-5, Case No. IPR2016-01885 (P.T.A.B.) (hereinafter IPR2016-01885).

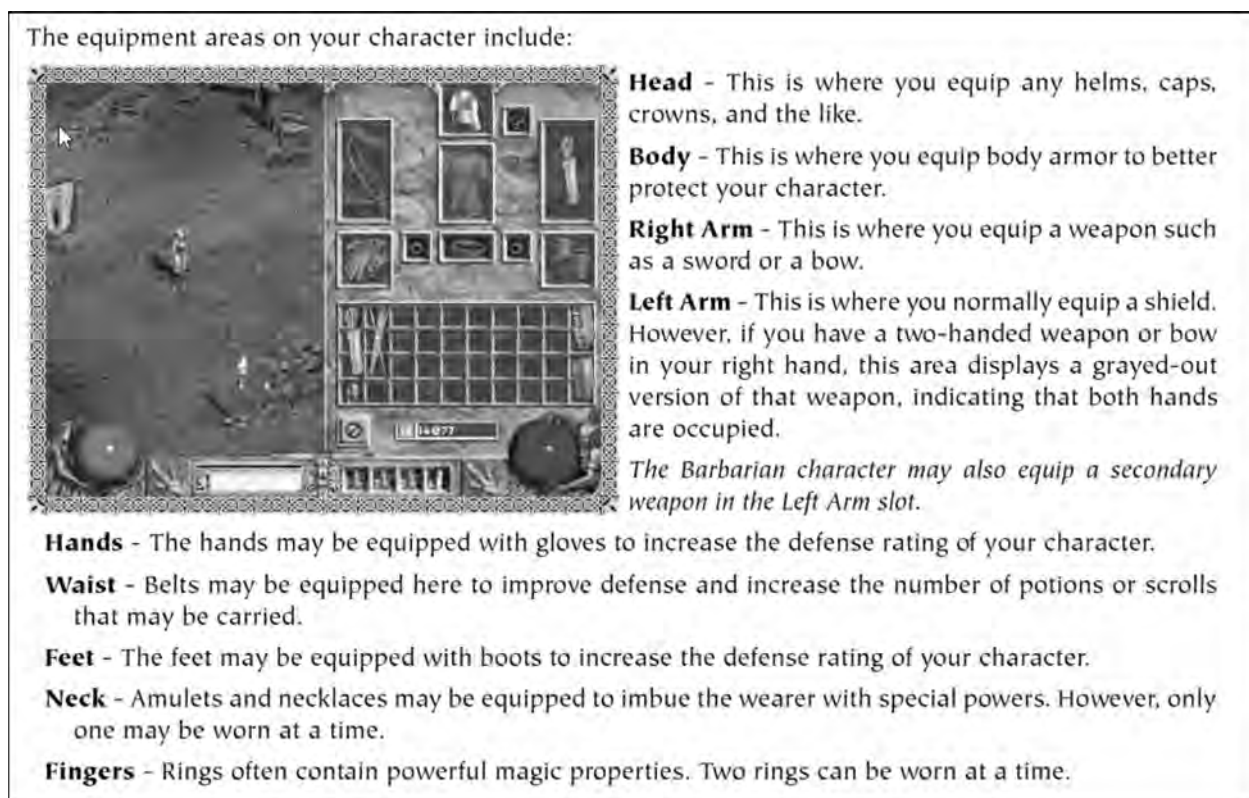


Figure 2 *Diablo II User Manual*, IPR2016-01885, Ex. 1013, p. 21

While it was possible to play *Diablo II* alone in a single player mode, the game also featured multiplayer modes through the 'Battle.net' service. This was Blizzard Entertainment's free online gaming network which allowed players to interact with each other by chatting and adventuring together. Inside the Battle.net client, a player could be represented by an avatar depicting their in-game character portrait, which included the items they had equipped onto their character. Similarly, other players were also represented by their character's portraits in the Battle.net chat interface.

Blizzard's IPR petition argued that the *Diablo II* manual disclosed all features of the '743 patent claims other than 'the use of layering and a database', though Blizzard argued those features were necessarily taught to one of ordinary skill in the art in view of the manual itself or a patent application publication to Rogers that had been used by the patent examiner during prosecution of the '743 patent.²² Interestingly, the rejections issued by the patent examiner were also based on *Diablo II* though the examiner cited a reference document other than the user manual.

Specifically, the petition argued that creating a character when first logging on to Battle.net and equipping that character with items found in-game met the first step of claim 1.²³ This equipment enabled game functions, namely combat actions such as melee and ranged attacks. Although the manual did not expressly discuss 'layering', the petition argued that the inventory screen and displays relative to the character met the claimed 'layers'.²⁴ The inventory features of *Diablo II* also taught the second step of claim 1, according to the petition.²⁵ The user's character could be equipped with a bow and arrow, for example, or a javelin.²⁶ And with respect to the 'exhausting' clause of claim 1, the petition argued that *Diablo II*'s weapon durability and 'stackable' consumables taught this limitation.²⁷

GAT argued that items displayed near the character in the inventory screen were not 'layered' on the avatar,²⁸ nor did the *Diablo II* manual teach an avatar having multiple layers.²⁹ GAT also argued that *Diablo II* did not combine game item functions with the avatar or

22 U.S. Patent Application Publication No. 2005/0137015.

23 Ibid 19-21.

24 Ibid.

25 Ibid 22-23.

26 Ibid.

27 Ibid 23-25.

28 Ibid 32.

29 IPR2016-01885, Paper 18 at 19-22.

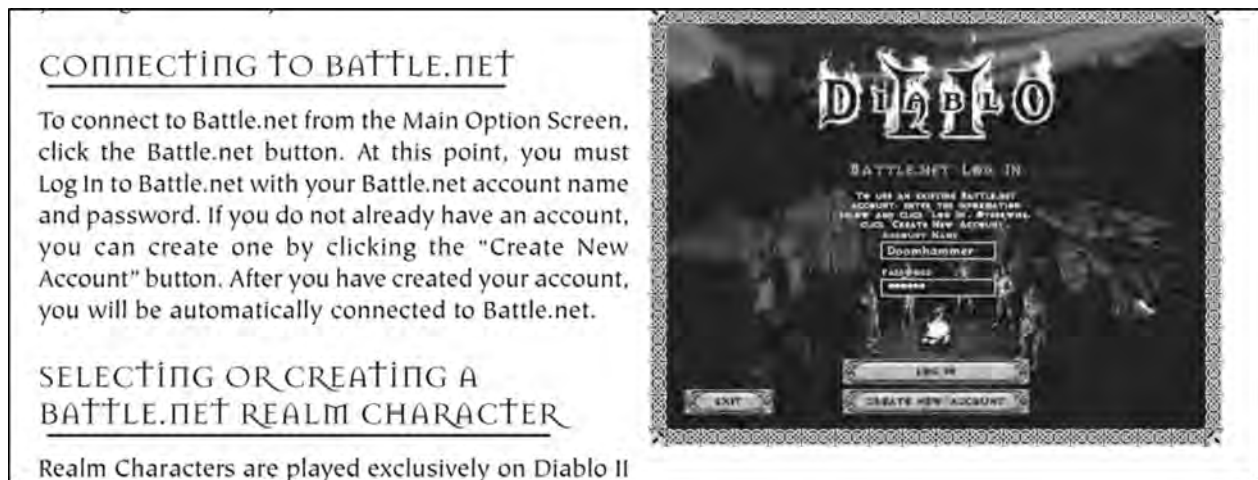


Figure 3 *Diablo II User Manual*, IPR2016-01885, Ex. 1013, p. 30

teach the claim recitations regarding exhaustion of items.³⁰

The PTAB traversed each of GAT's arguments, agreeing with Blizzard that the *Diablo II* manual taught each limitation of the claims, and issued a final written decision finding the '743 patent invalid as obvious.³¹ The decision largely turned on broad claim constructions for 'layers' and 'gamvatars'. The claimed 'layers' were interpreted by the PTAB to include 'graphical regions for displaying graphical objects', and thus were met by *Diablo II*.³² And there were multiple layers, since a character could equip separate items on a left and right arm.³³ And as to the 'gamvatar', this term was properly met by the in-game character equipped with the items.³⁴ *Diablo II*'s javelins and throwing potions were found to meet the claimed exhaustion limitations.³⁵

Game and Tech appealed the PTAB ruling which led the case to its final destination in the US Court of Appeals for the Federal Circuit.

6. Game over for GAT – the Federal Circuit affirms

GAT appealed the PTAB's ruling on two main grounds. The grounds on appeal rested on the proper construction of two terms in the '743 patent, 'gamvatar' and 'layers' as

well the ultimate determination that the challenged claims would have been obvious in light of the asserted prior art.³⁶

In the decision, the Federal Circuit held that the PTAB properly construed both 'gamvatar' and 'layers'. In evaluating the PTAB ruling, the Federal Circuit noted that the PTAB (at that time) interpreted claims under the broadest reasonable construction standard, assessing the meaning of terms in light of the patent specification.³⁷

GAT argued that the broadest reasonable interpretation of 'gamvatar' was narrower than the construction adopted by the PTAB. GAT argued that a 'gamvatar' need be concurrently usable on-line and in-game.³⁸ The Federal Circuit's analysis began with the claim language, which recites a 'gamvatar' that comprises an avatar which is then combined with a multitude of game item functions. The Court found that the claims and specification both teach that 'gamvatar' is not limited to meaning 'concurrently usable online and in the game'.³⁹ The Federal Circuit dismissed arguments that the construction equated 'avatar' and 'gamvatar', since the claim and specification both specified that a gamvatar was an avatar that had been combined with a game item function.⁴⁰

GAT also argued that the PTAB misconstrued 'layers'. According to the PTAB, the 'layers' encompassed 'graphic

30 Ibid 25–42.

31 IPR2016-01885, Paper 35.

32 Ibid 24–27.

33 Ibid.

34 Ibid 30–31.

35 Ibid 27–28.

36 Brief of Appellant, *Game and Tech. Co. v. Activision Blizzard, Inc. and Riot Games, Inc.*, 926 F.3d 1370 (Fed. Cir. 2019).

37 *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2133, 195 L. Ed. 2d 423 (2016).

38 *Activision Blizzard, Inc. v. Game & Tech. Co.*, No. IPR2016-01885, 2018 WL 1358661, slip op. at 4 (P.T.A.B. 14 March 2018).

39 *Game and Tech Co., v. Activision Blizzard, Inc.*, 926 F.3d 1370, 1376 (Fed. Cir. 2019).

40 Ibid 1377.

regions for displaying graphical objects' as well as 'constructs for holding graphics'. GAT argued that the PTAB erred by construing "layer" to mean display region'.⁴¹ The Court again grounded its analysis in the claim language.⁴² In rejecting GAT's argument, the Court observed that the claims used the disjunctive 'or' to recite what the layers did, and thus the term could properly be construed to cover each of those features.⁴³ These two alternatives are 'displaying' and 'performing game functions'. As a result, more than one layer is required. This interpretation is further supported by the specification as it is shown that different game items may be displayed at different levels of layers on top of the avatar's background.

Having established the Patent Trial and Appeal Board did not err in its construction of 'gamavatar' and 'layers' the Federal Circuit turned to the obviousness challenge. The legal standard for obviousness establishes that a patent claim is invalid 'if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made' to a person having ordinary skill in the art.⁴⁴ Obviousness is a question of law that is based on underlying findings of fact.⁴⁵ Underlying findings of fact include: (1) 'the scope and content of the prior art', (2) 'differences between the prior art and the claims at issue', (3) 'the level of ordinary skill in the pertinent art', and (4) the presence of objective indicia of nonobviousness such 'as commercial success, long felt but unsolved needs, failure of others', and unexpected results. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966).

The PTAB had held that the claims would have been obvious over the *Diablo II* user manual alone, alternatively further in view of the Rogers publication. GAT challenged this PTAB holding by arguing that Battle.net and *Diablo II* were both 'in-game' and that the characters were not used on websites.⁴⁶ GAT further argued that *Diablo II* did not have layers for performing game item functions.⁴⁷

The Federal Circuit disagreed with GAT, finding that substantial evidence supported the PTAB's finding that the *Diablo II* manual teaches that the avatar can be used in Battle.net, which is distinct from standalone game instances. The *Diablo II* user manual also addressed the 'layers' limitations of the claims. The Federal Circuit agreed with the PTAB that *Diablo II* included inventory screens for displaying game items and allows for game

item functions to be performed as well. These screens included multiple layers because there are a number of graphic regions in which graphical objects may be displayed. A player may equip various weapons, armour, and other in-game items and then interact with these items where they provide an in-game item function to the player.

In a final counterargument, Game and Technology attempted to assert that a single reference could not support obviousness, but the Federal Circuit observed that this contention was wrong as a matter of law.⁴⁸ According to *Arendi S.A.R.L. v. Apple Inc.*, 'a patent can be obvious in light of a single prior art reference if it would have been obvious to modify that reference to arrive at the patented invention'.⁴⁹

As a result, the Federal Circuit affirmed the final written decision of the PTAB.

7. A patent gone wrong?

In some ways, the result here is due to a disconnect between the claims and the specification. The outcome of this case could have been very different if the term 'game item function' had been claimed in line with the examples of the specification. Reading through the specification, it seems that the patent applicant had a specific application and setting in mind but during prosecution of the patent the claims evolved to be directed to an entirely different concept (whether intentionally or not). The story told by the '743 patent specification appears to be one of a website avatar that can equip game-specific power-ups, such that when the user starts playing a specific game they may obtain some benefit from their broader website avatar. For example, your character on a multi-game site might equip a special bonus that allows you to double your money when you are playing a casino game on the site.

This specific example of a 'game item function' is a type of in-game bonus ability enabled by items worn by your lobby avatar rather than the wholly conventional idea that characters in games can equip weapons and other items. The characters in the *Diablo II* user manual, specifically when in Battle.net's lobby, were not argued to have bonus items that would then impact the game. Instead the items are attributes of the in-game characters.

Yet GAT may have been unable to meaningfully claim the specific examples of their own specification while maintaining their infringement arguments against

41 Ibid 1378.

42 Ibid 1376.

43 Ibid 1378.

44 35 U.S.C. § 103(a), pre-AIA.

45 See *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

46 *Game and Tech Co., v. Activision Blizzard, Inc.*, 926 F.3d 1370, 1380 (Fed. Cir. 2019).

47 Ibid 1379.

48 Ibid 1381.

49 *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016).

World of Warcraft. As often happens, a disclosure of a relatively specific application turned into claims that were ultimately read to be much broader than the disclosure. While this may have helped GAT in capturing more potential infringers, it doomed their patent.

8. Conclusion

IPRs allow an accused infringer to file a petition with the US Patent and Trademark Office arguing that the asserted patent should have never been granted in the first place. They can be a very effective response to patent infringement lawsuits. In this case, they allowed Blizzard and Riot to avoid costly discovery into their software's operation and business by obtaining a stay of the district court action.

As a patent owner, broad claims can be a double-edged sword. The availability of IPRs means that a patent's validity will be tested early, often before discovery is available. Thus patent owners may look to keep the

reality of IPRs in mind during prosecution when preparing claims, taking care to craft claims of reasonable scope to avoid easy validity challenges.

IPRs have been subject to a lot of change in 2019, with the USPTO updating its PTAB Trial Practice Guide.⁵⁰ The update adopted a new motion to amend procedures designed to make it easier for patent owners to amend their claims. Although IPRs technically allowed amendments already, they were seen as practically barred by the high standards and realities of the process. In one example of the new rules at work, the PTAB allowed Gree to amend claims in their ongoing dispute with Supercell.⁵¹ The update also revised the Trial Practice Guide to reflect the claim construction standard shift from last year, when the PTAB changed to use *Phillips* construction rather than the broadest reasonable interpretation standard.

These changes have balanced the scales a bit. However, IPRs remain an attractive option for accused infringers and are a consideration in most patent infringement suits.

50 Office Patent Trial Practice Guide, 84 Fed. Reg. 33, 925 (July 16, 2019) (updated July 2019).

51 *Supercell Oy. v. Gree Inc.*, Case No. PGR2018-00039 (PTAB 2019).