

***PLR Worldwide Sales Limited v.
Flip Phone Games Inc.***

**IPR2024-00209
U.S. Patent No. 9,427,662**

Petitioner's Demonstratives

Hearing: February 6, 2025

IPR2024-00209 – '662 Patent

Ground	Claim(s) challenged
1. Ho and Aoki	1-11, 13-19
2. Jiau and Aoki	1-20
3. Ho and Kim	1-11, 13-19
4. Jiau and Kim	1-20

Summary: Disputed Issues (Claim 1)

- **Claim 1 disputed issues:**
 - *“providing the server with...”* (1[a], Ground 1 (Ho/Aoki)):
 - Claim enumerates 14 categories of information, any one of which may be provided to a server to meet the claim limitation
 - Petition shows that seven of these are disclosed by Ho and/or Aoki: **game, scene, element, model type, current location, version identifier, and user-identification information**
 - PO argues that Ho does not **expressly** state this information is sent to the server, but does not rebut Petitioner’s expert’s technical reasoning based on disclosed embodiments
 - PO’s argument that Aoki’s user-identification information is used for a different purpose does not address the proposed combination
 - *“downloading hot spot information”* (1[b], Ground 2 (Jiau/Aoki)):
 - PO argues that Jiau only teaches “caching” and not “storing” information
 - PO ignores Jiau’s express disclosures of “storing” hot spot information
 - PO’s argument that “caching” is not “downloading” is based on an unsupported, overly narrow claim construction

Summary: Disputed Issues (Claim 13)

- **Claim 13 disputed issues:**
 - ***“providing the server with user-identification information”*** (13[a], Ground 1 (Ho/Aoki)):
 - Same arguments as Limitation 1[a] for user-identification information
 - ***“providing the server with user-identification information”*** (13[a], Ground 2 (Jiau/Aoki)):
 - Petition proposes combining Jiau’s disclosure of retrieving hotspot information from server based on information sent by client with Aoki’s disclosure of providing user ID information
 - PO’s argument that Aoki uses user-ID information for a different purpose ignores the proposed combination
 - PO fails to show that Jiau teaches away from targeted advertising
 - ***“downloading hot spot information”*** (13[b], Ground 2 (Jiau/Aoki)):
 - Same arguments as Limitation 1[b]

Summary: Disputed Issues (Dependent Claims)

- **Dependent claim disputed issues:**
 - ***“saving ... a version identifier”*** (Claim 7, Ground 1 (Ho/Aoki)):
 - Same arguments as Limitation 1[a] for “version identifier”
 - ***“saving ... a version identifier”*** (Claim 7, Ground 2 (Jiau/Aoki)):
 - Petition presents two theories, based on “object id” and “nVersion” information
 - PO does not respond to the substance of Petitioner’s “nVersion” theory
 - ***“the hidden content comprises a second hot spot”*** (Claims 12/20, Ground 2 (Jiau/Aoki)):
 - Petition relies on Jiau’s objects, which include hot spots that can activate a hidden “interior” that contains its own hot spots.
 - PO’s argument that Jiau’s “interior” cannot contain objects ignores Jiau’s broader disclosures about objects and hotspots.

'662 Patent Overview

'662 Patent Overview – Claim 1

1. A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:

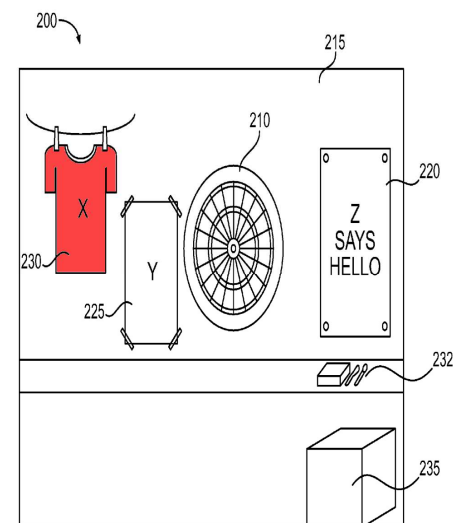
- a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;
- b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:
 - 1) hidden content for presenting to the user when the hot spot is activated; and
 - 2) coordinate information;
- c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;
- d) displaying an object at the designated non-promotional location; and
- e) displaying the hidden content when the user activates the hot spot.

'662 Patent Overview – “Hot Spot”

A hot spot is an in-game feature that includes an activation element and a content element that is triggered by the activation element. The downloaded hot spot information may include one or both of the elements. The mobile communication device may update the hot spot information periodically by contacting the remote system.

The activation element may comprise an area location or an item, sometimes hidden in the game, that can be triggered by a user or some other in-game element. For example, the hot spot information may include coordinate information, and the coordinate information may be used to designate the location for activating the hot spot. In some embodiments, the designated location is an item that is displayed in-game.

In some embodiments, the hot spot information identifies the content (i.e., “content element”) to be displayed when the hot spot is activated. The content may include, for example, a message, and the message may be promotional. In some embodiments, the message includes a hint related to the game. Other content that can be triggered by a hot spot includes a new game level or an item useful in playing the game. The content triggered by a first hot spot can also include another hot spot that is then placed within the game. The content may be promotional in nature, but can also be non-promotional.



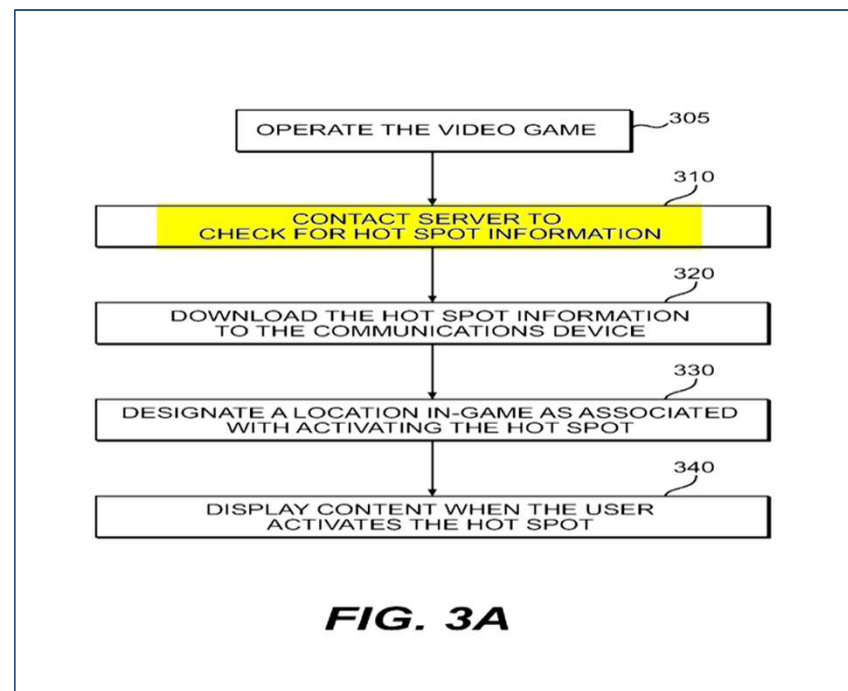
Turning now to FIG. 2A, several items 210, 220, 225, 230, and 235 are shown within scene 200. In this example, virtually any of these items may be defined as hot spots on the mobile communication device. For instance, if the user throws a dart that hits shirt 230, a promotional message associated with third party X may pop up on screen. A message may include a picture, text, video, audio, or combination thereof. Promotional messages might also be displayed if the user activates hot spots on poster 225 or chalk

Ex. 1001 (662 patent) at 2:25-41; FIG. 21; 6:44-60.

'662 Patent Overview – Claim 1

1. A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:

- a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;
- b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:
 - 1) hidden content for presenting to the user when the hot spot is activated; and
 - 2) coordinate information;
- c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;
- d) displaying an object at the designated non-promotional location; and
- e) displaying the hidden content when the user activates the hot spot.



Ex. 1001 (662 patent) at Fig. 3A

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

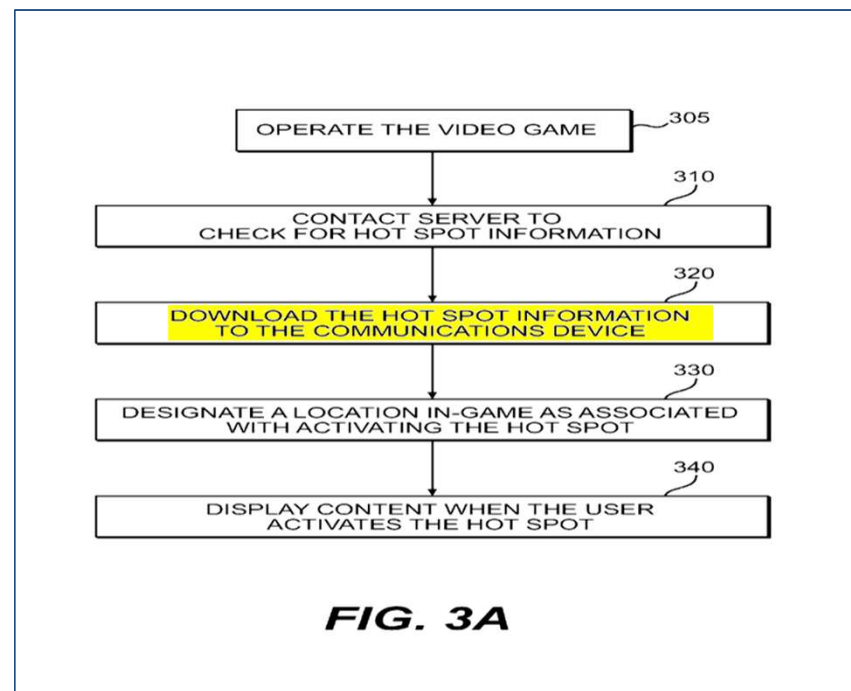
'662 Patent Overview – Claim 1

1. A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:

a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;

b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:

- 1) hidden content for presenting to the user when the hot spot is activated; and
 - 2) coordinate information;
- c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;
- d) displaying an object at the designated non-promotional location; and
- e) displaying the hidden content when the user activates the hot spot.



Ex. 1001 (662 patent) at Fig. 3A

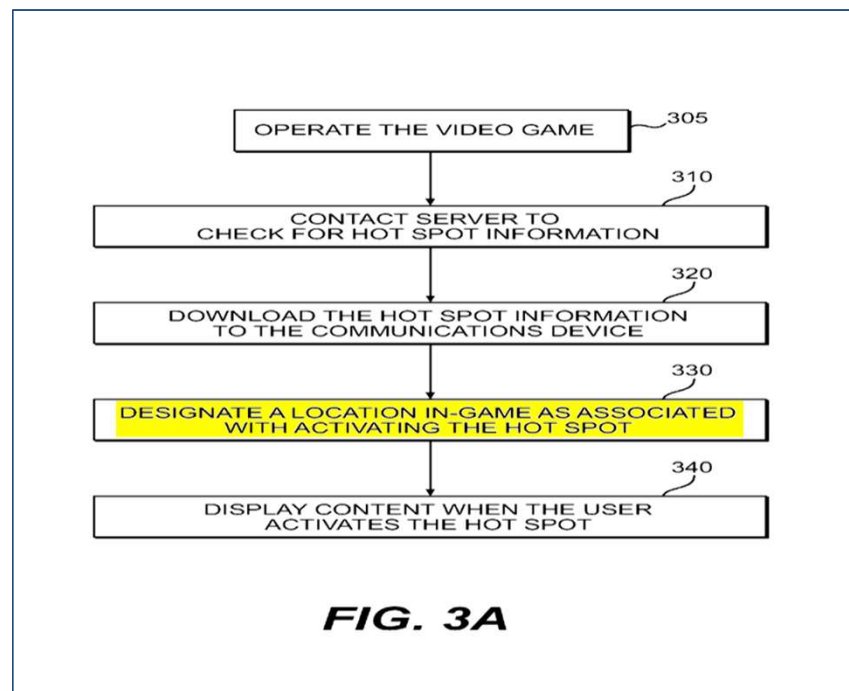
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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'662 Patent Overview – Claim 1

1. A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:

- a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;
- b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:
 - 1) hidden content for presenting to the user when the hot spot is activated; and
 - 2) coordinate information;
- c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;
- d) displaying an object at the designated non-promotional location; and
- e) displaying the hidden content when the user activates the hot spot.



Ex. 1001 (662 patent) at Fig. 3A

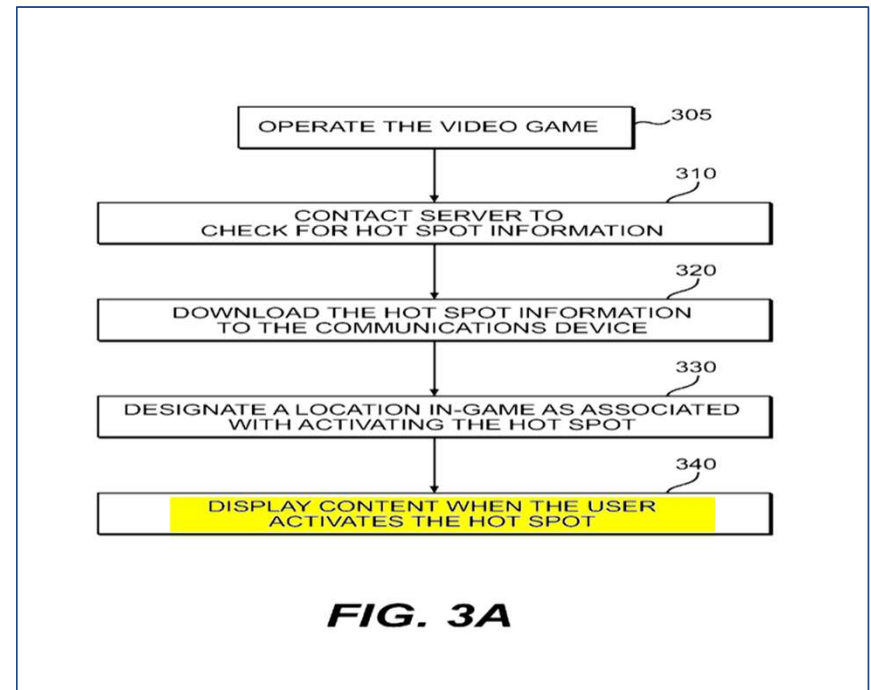
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

11

'662 Patent Overview

1. A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:

- a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;
- b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:
 - 1) hidden content for presenting to the user when the hot spot is activated; and
 - 2) coordinate information;
- c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;
- d) displaying an object at the designated non-promotional location; and
- e) displaying the hidden content when the user activates the hot spot.

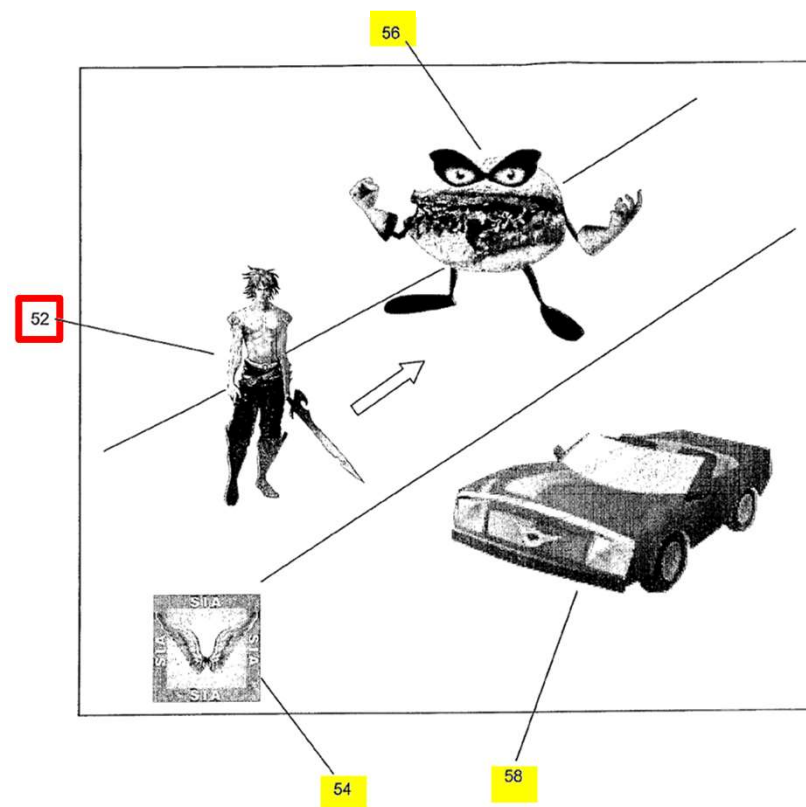


Summary of Prior Art

Summary of Prior Art: Ho (Ex. 1004)

Figure 3 shows examples of the interactive information elements being incorporated in a MMORPG. At a particular juncture in gameplay, a character 52 in the MMORPG controlled by the player may encounter some interactive information elements like a "wings" button 54 to enable the character 52 to fly (an example of an icon in the game), a hamburger monster 56 (an example of a character in the game) and a car 58 (an example of an item in the game). Each interactive information element 54, 56, 58 may be linked/related to a particular advertiser. The interactive information elements 54, 56, 58 may be engaged in different ways. The way of engaging the interactive information elements 54, 56, 58 may depend on the type of element being engaged. For example, the hamburger monster 56 may be engaged only when the character 52 fights and successfully slays the hamburger monster 56. Similarly, the car 58 may be engaged when the character 52 enters the car 58. The "wings" button 54 may

If the player chooses to engage any of the interactive information elements 54, 56, 58 in one of a number of ways (28), an action may be activated (30). For example, highlighting the icon 54 may activate an on-screen presentation that may be within the course of gameplay or in a sub-screen in the game. The on-screen presentation may be, for example, an airliner with a particular airline's (an advertiser) paint scheme flying across the screen (overlaid on the game environment and does not disrupt gameplay) trailing a catchphrase of the airline like "A great way to fly". In another example, making the character 52 enter the car 58 may activate the generation of a roar of an engine starting and revving recorded from an engine of an actual car depicted by the car 58. Similarly, making the character 52 slay the hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants. The sub-screen may also be overlaid on the game environment and may not be disruptive to gameplay.



Ex. 1004, 5:9-38; Pet. 11-13.

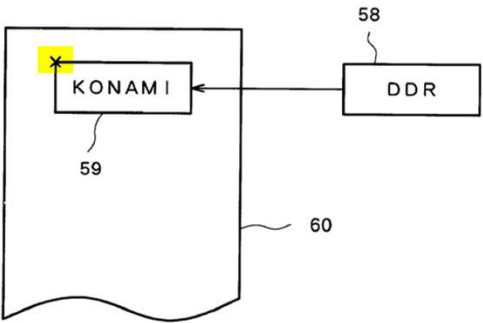
Ex. 1004, Fig. 3; Pet. 11-13

Summary of Prior Art: Aoki (Ex. 1005)

[0072] FIG. 5 is a diagram explaining the content of the advertisement management database 48. As shown, the advertisement management database 48 is configured to store “advertisement ID”, “image path”, “game ID”, “advertisement placement location data”, “advertisement period”, “advertiser ID”, “accumulated charge point”, “advertisement target data”, and “advertisement placement location rank”, all being mutually associated. “Advertisement ID” is information identifying an advertisement supplied from various advertisers. “Image path” indicates a location where an advertisement image is stored and an image file name. “Game ID” is information identifying a game in which the relevant advertisement is to be inserted. “Advertisement placement location data” indicates a specific texture image and a location therein in the game identified by the relevant game ID, where the relevant advertisement image is to be embedded. As shown, “advertisement placement location data” includes “texture image ID” and “replacing position.” “Texture image ID” is information identifying a texture image used in the relevant game, and “replacing position” is information, expressed in X and Y coordinates, specifying a position in each texture image, where an advertisement image is to be embedded. “Advertisement period” indicates a period during which the relevant advertisement is being displayed. “Advertiser ID” identifies an advertiser of the relevant advertisement, and is referred to in specification of a party to be charged for the relevant advertisement. “Accu-

Ex. 1005, [0072]; Pet. 13-16.

FIG. 7



device 34. When the time arrives to create a game image using a texture image 60 identified by the “advertisement texture image ID”, contained in the “advertisement placement location data”, an advertisement image 58 is read from the location designated by the “image path” and embedded into the point designated by the “replacing position”, also contained in the “advertisement placement location data”, that is specifically the point marked X in the image in FIG. 7. Then, the resultant data is sent to the image processing

Ex. 1005, Fig. 7, [0074]; Pet. 16.

Summary of Prior Art: Jiau (Ex. 1006)

In accordance with the purpose of the invention, as embodied and broadly described herein, the invention relates to a method of implementing hotspots in a virtual world, comprising: assigning a part of an existing object in the virtual world as having a hotspot that is smaller than the total object; and when a user in the virtual world activates the hotspot, performing a hotspot activity in the virtual world associated with the activated hotspot.

A virtual world can also include “hotspots” and “hotspaces” that cause the performance of a predefined action or teleportation. Objects can have predetermined “hotspots” that cause actions to occur when the user touches or selects the object. For example, when the user touches or selects an object, a pop-up advertisement may appear. In

Ex. 1006, 3:22-26, 16:29-32; Pet. 36-37.

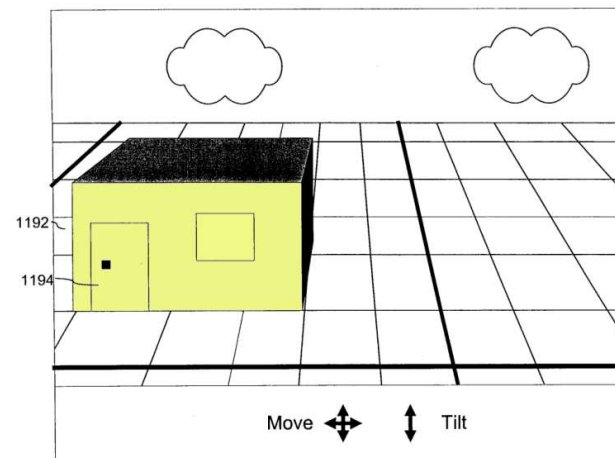


Fig. 11(e)

Fig. 11(e) shows an example of an object 1192 having an hotspot link 1194 (e.g., a door-shape) allowing a user to enter an interior of the object. In the example, the user enters the interior of the object when he activates the hotspot 1192 (i.e., when he collides with or passes sufficiently close to the hotspot). Fig. 11(f) shows an example of an interior of object

Ex. 1006, Fig. 11(e), 16:18-21; Pet. 47-48.

Summary of Prior Art: Kim (Ex. 1007)

FIG. 5 describes a process to mark advertisement item in the virtual space.

A) If size of x is H and size of y is V, main program calls generator of column (Call-A of FIG. 5), and receives real number standardized between 0 and 1 (Call-B of FIG. 5).

B) Program of server system calls generator of column twice and finds standard value of x/y axis as well as maximum value of each axis ((Call-I, Call-J). Finally, necessary co-ordinates are obtained by multiplying each value. Maximum data to show maximum value of each item is data on the size of virtual space, storage period of advertisement item, maximum value of features of character and descent rate.

C) When this value is not coincident in comparison with co-ordinates such as structure of virtual space or co-ordinates of advertisement item etc. (Call-C, Call-D), it is displayed on the screen. (Call-E, Call-F). When display on the screen is impossible because of coincidence, process of A) is repeated. Advertisement items are allocated or marked on the screen according to this method.

As another way of outlay of products to be advertised in the game program is to use a character featured at the server. As mentioned previously, an advertisement item is incorporated by game program so that the character of gamer can find or pick it. But, it also can show character of the server in the game program such as a monster. If the character of gamer encounters the monster and wins after confrontation against the monster, the advertisement item relevant to the monster can be shown at the spot where monster the dies.

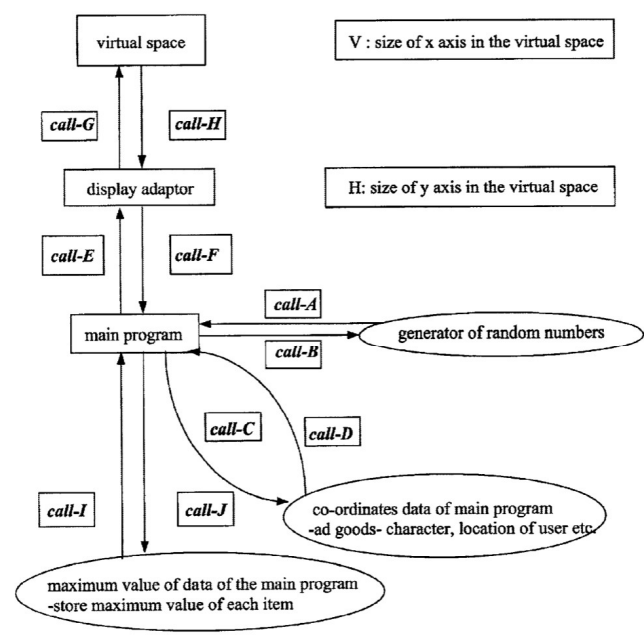


FIG . 5

Ex. 1005, 8:24-52, Pet. 58-59.

Ex. 1007, Fig. 5, Pet. 58-59.

Ho (Ex. 1004) is Prior Art (Ground 1)

Ho is Prior Art Under *Lynk Labs*

- No dispute that Ho is prior art under pre-AIA § 102(e).
- PCT Application filed July 12, 2006, published Jan. 17, 2008. Ex. 1004; Pet. at 11.
- Patent Owner recognizes that “the Federal Circuit recently heard argument” on the availability of 102(e) art in IPRs. POSR at 16 (*citing Lynk Labs, Inc. v. Samsung Electronics Co.*)



“[W]e conclude that §§ 311(b) and 102(e)(1) permit IPR challenges based upon published patent applications, and such published patent applications can be deemed prior art in IPRs as of their filing date.”

*Lynk Labs, Inc. v. Samsung Elecs. Co., No. 2023-2346, 2025 WL 85559, at *8 (Fed. Cir. Jan. 14, 2025)*

Challenges to Dr. Zagal's Testimony

The Board Already Rejected PO's Arguments

We decline to give no weight to Dr. Zagal's testimony. Patent Owner has not shown that the entirety of Dr. Zagal's testimony is conclusory. To the contrary, much of Dr. Zagal's testimony cites to portions of the prior art and explains Dr. Zagal's reasoning. For example, although Patent Owner

ID (Paper 9) at 19

Ex. 1003 ¶ 121 (underlining added, other emphasis in original). As the underlined portion shows—testimony which Patent Owner omitted from its Preliminary Response—Dr. Zagal set forth the basis for his opinion as required by 37 C.F.R. § 42.65(a). Similarly, other sections of Dr. Zagal's testimony quoted by Patent Owner include the factual basis for his opinion. See Prelim. Resp. 41–43 (quoting Ex. 1003 ¶¶ 124–127). Therefore, there is no basis to disregard the entirety of Dr. Zagal's testimony.

ID (Paper 9) at 20

121. “and (2) coordinate information”: Ho discloses interactive information elements (*i.e.*, hot spots), such as a “wings button 54” (icon), a “hamburger monster 56” (character in a game), or “a car 58” (item) that when engaged displays hidden content (*e.g.*, advertisements). *Id.*, 5:2-16, 5:27-38. Ho further teaches that the interactive information elements and hidden content that is displayed when an interactive information element is activated may be provided by the server and “located at a juncture in the game such as... a specific location in the game.” Ex. 1004, 7:17-23; *see also id.*, 9:33-36 (server may provide the client with a “module” that “enable[s] the at least one interactive information element” and that “may also enable the location of the least one interactive information element at a juncture in the video game.”). In my opinion, a POSITA would have understood Ho's disclosures to teach providing coordinate information for the in-game location of the interactive information element and advertisement. Indeed, a POSITA would understand that by the time of Ho many video games used coordinates extensively to manage and represent the position of objects, characters, and elements within the game world. For example, in games with 2D graphics, the well known cartesian coordinate system (x, y) is used to define positions on a two-dimensional plane. Similarly, 3D games also use coordinates to define positions in a three-dimensional space. Thus, a POSITA would have understood that Ho's server would provide coordinate information so that the interactive information element and hidden content can be displayed in the appropriate location in the game and/or on the screen in my opinion.

Ex. 1003 (Zagal Decl.)
¶ 121

Xerox Only Excluded Expert Testimony That Lacks Supporting Evidence and Technical Reasoning

“We have reviewed this excerpt from Dr. Jones’ declaration and note that it merely repeats, verbatim, the conclusory assertion for which it is offered to support. See Ex. 1003 ¶ 54 (Dr. Jones declaring that “[a] POSITA would understand that such a blocking would require recording the blocking in a data record associated with that user’s account.”). Dr. Jones does not cite to any additional supporting evidence or provide any technical reasoning to support his statement. Thus, the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight.

Xerox Corp. v. Bytemark, Inc., IPR2022-00624, Paper 9, 15-16 (P.T.A.B. Aug. 24, 2022)

Ground 1: Ho in view of Aoki

Ground 1: Summary of Arguments

Patent Owner's Arguments	Claims
Ho in view of Aoki does not teach "Contacting a server for hot spot information to download, comprising providing the server with at least one of. . ." (Claim 1[a])	1-11
Ho does not teach "further comprising saving on the mobile communication device a version identifier for the downloaded hot spot information."	7
Ho in view of Aoki does not teach "Contacting a server for hot spot information to download, comprising providing the server with user-identification information" (Claim 13[a])	13-19

1[a]: The Limitation Recites 14 Categories of Information

Five are disclosed/rendered obvious by Ho

- scene for which hot spot information is desired
- element for which hot spot information is desired
- model type of the mobile communication device
- current location of the mobile communication device
- version identifier for hot spot information currently on the mobile communication device

Two are rendered obvious by Aoki:

- game for which hot spot information is desired
- user-identification information

a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;

1[a]: Ho Discloses “Contacting a Server for Hot Spot Information to Download” and “Providing the Server” With Information

- Ho expressly discloses that the server obtains data from the client end device
- The client data is used to determine what hot spot information (“interactive information elements”) to send
- No support for PO’s argument that “automatically” means the client does not send information

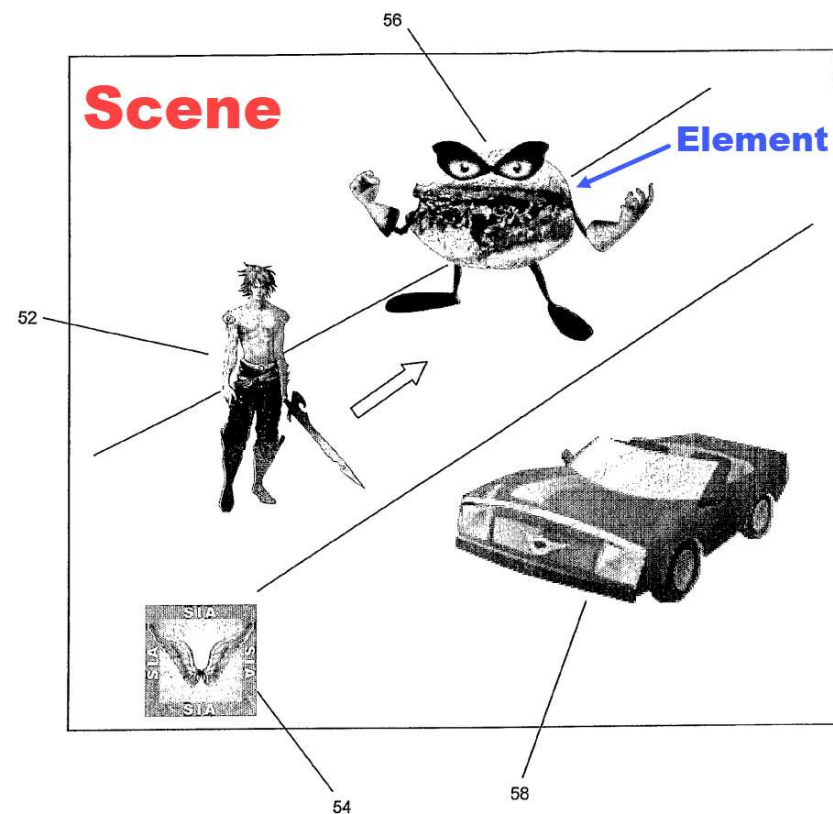
Referring to Figure 5, there is shown a preferred method of client end and server interaction for the present invention. Firstly, the client end device, such as, for example, a personal entertainment system, a video games console, a mobile telephone, a personal digital assistant, a notebook and a desktop computer may be activated and subsequently connected to a server via a network (100). The server may then obtain data from the client end device and determine whether the interactive information element(s) is legitimate (102) as the interactive information element(s) may be illegally modified. If the interactive information element(s) is found to be not legitimate, the interactive information element(s) is then removed from the client end device (104). If the interactive information element(s) is found to be legitimate, the server check information on the client end device relating to the interactive information element(s) (106) and may include the downloading of the incidence of interactive information element(s) activation for processing as described in an earlier portion of the description. Subsequently, the server then determines whether the interactive information element(s) needs to be changed/renewed (108). If the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device (112). If change/renewal of the interactive information element(s) is not

Ex. 1004 (Ho), 10:1-16; Pet. 20-21; Reply 3-5

1[a]: Ho Discloses Providing a “Scene” or “Element” for Hot Spot Information

- Ho teaches that hot spots may be part of a “scene” or “element”

If the player chooses to engage any of the interactive information elements 54, 56, 58 in one of a number of ways (28), an action may be activated (30). For example, highlighting the icon 54 may activate an on-screen presentation that may be within the course of gameplay or in a sub-screen in the game. The on-screen presentation may be, for example, an airliner with a particular airline's (an advertiser) paint scheme flying across the screen (overlaid on the game environment and does not disrupt gameplay) trailing a catchphrase of the airline like “A great way to fly”. In another example, making the character 52 enter the car 58 may activate the generation of a roar of an engine starting and revving recorded from an engine of an actual car depicted by the car 58. Similarly, making the character 52 slay the hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants. The sub-screen may also be overlaid on the game environment and may not be disruptive to gameplay.



Ex. 1004, 5:27-38, Fig. 3; Pet. 22; Reply 7-8

1[a]: Ho Discloses Providing a “Scene” or “Element” for Hot Spot Information

- Ho expressly teaches the server obtains information “relating to the interactive information element” to determine whether to “change” or “renew” the element.
- Only the “relevant sub-modules” for will be downloaded and replaced.

tsunamis, earthquakes, mobilisation of armed forces and the like. For video games that are played in an online mode, the interactive information elements may be updated by automatically downloading and replacing relevant sub-modules controlling the interactive information elements in the video game. This facilitates the instant transmittal of emergency

removed from the client end device (104). If the interactive information element(s) is found to be legitimate, the server check information on the client end device relating to the interactive information element(s) (106) and may include the downloading of the incidence of interactive information element(s) activation for processing as described in an earlier portion of the description. Subsequently, the server then determines whether the interactive information element(s) needs to be changed/renewed (108). If the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device (112). If change/renewal of the interactive information element(s) is not

Ex. 1004, 10:9-17; Pet. 21-23; Reply 7-8

1[a]: Ho Discloses Providing a “Scene” or “Element” for Hot Spot Information

- Dr. Zagal: A POSITA would understand the “scene” or “element” is provided to the server, because the server must know which “scene” or “element” to update.

114. As another example, Ho discloses that engaging a hot spot may reveal hidden content received from the server, such as an advertisement for a “chain of fast food restaurants” that is to be displayed when “character 52 slay[s] the hamburger monster 56.” Ex. 1004, Abstract, 2:6-9, 5:35-39, 8:19-21. In my opinion, a POSITA would understand this disclosure to teach that the client device provides to the server the “scene” or “element” (*i.e.*, the hamburger monster) for which hot spot information is desired so that the server may return the appropriate hot spot information and associated advertisement. In my opinion, a POSITA would also understand this disclosure to teach that the client device provides the server with the “current location of the mobile communication device” so that the advertised fast food chain is one that is within the geographic location of the client device.

Ex. 1003 (Zagal Decl.), ¶114; Pet. 22

1[a]: Ho Discloses Providing a “Model Type” for Hot Spot Information

- Dr. Zagal: A POSITA would have known that different phones have different capabilities that may give rise to technical compatibility issues.
- Dr. Zagal: A POSITA would have found it obvious to provide the model type in order to retrieve compatible hot spot information.

45. Designing games for mobile devices did pose some well-recognized challenges: for example, because different phones incorporated different screen sizes, color depths, APIs, and user inputs, developers had to design their games to support a wide variety of different mobile device hardware. Ex. 1012 at 1; Ex 1014 at 1. Despite these challenges, however, mobile gaming was considered to be one of the fastest growing segments in the video game industry in the mid-2000s. Ex. 1014 at 1. For example, by 2003, experts already predicted that the mobile game market would generate over \$15 billion in annual revenue within several years. Ex. 1012 at 1. Many of the largest video game publishers also recognized the value of mobile games and sought to establish a foothold in that market—for example, in 2006, Electronic Arts acquired mobile game developer Jamdat for \$680 million. Ex. 1014 at 1.

115. In another example, a POSITA would have understood Ho to disclose or render obvious providing the server with “the model type of the mobile communication device” in my opinion. For instance, Ho teaches that its game may run on a “mobile telephone” (Ex. 1004, 2:20-22): in my opinion, a POSITA would have understood that mobile phones had different capabilities (*e.g.*, different screen sizes, resolutions, and operating systems). Thus, a POSITA would have understood or found it obvious to provide the server with the model type of the mobile phone so that the server may return hot spot information that is compatible or optimized for the capabilities of the mobile phone.

Ex. 1003 (Zagal Decl.) ¶¶ 44-45, 115; Pet. 22; Reply 5-6

1[a]: Ho Discloses Providing a “Current Location” for Hot Spot Information

- Ho discloses that hot spot information may include e.g., emergency announcements or advertisements relating to events associated with specific locations
- The emergency announcements and advertisements are both provided using “interactive information elements” (hot spots)

However, it should be noted that the interactive information elements are not only for advertising. The interactive information elements may be used for the propagation of public announcement services, such as emergency announcements like warnings for hurricanes, tsunamis, earthquakes, mobilisation of armed forces and the like. For video games that are

car depicted by the car 58. Similarly, making the character 52 slay the hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants. The sub-screen may also be overlaid on the game environment and may not be disruptive to gameplay.

Ex. 1004, 9:7-10, 8:19-21; Pet. 22; Reply 6-7

1[a]: Ho Discloses Providing a “Current Location” for Hot Spot Information

- Dr. Zagal: It would have been obvious to a POSITA that location information must be provided for the server to return relevant hot spot information.

113. For example, Ho discloses that the interactive information elements may be used to display public announcements services, such as “warnings of hurricanes, tsunamis, earthquakes,” etc. Ex. 1004, 9:7-15. In my opinion, a POSITA would understand this disclosure to teach that the client device provides the server with “the current location of the mobile communication device.” For instance, such information would be important to ensure that a warning about a hurricane in Florida is directed to residents located in Florida and not residents in Oregon.

114. As another example, Ho discloses that engaging a hot spot may reveal hidden content received from the server, such as an advertisement for a “chain of fast food restaurants” that is to be displayed when “character 52 slay[s] the hamburger monster 56.” Ex. 1004, Abstract, 2:6-9, 5:35-39, 8:19-21. In my opinion, a POSITA would understand this disclosure to teach that the client device provides to the server the “scene” or “element” (*i.e.*, the hamburger monster) for which hot spot information is desired so that the server may return the appropriate hot spot information and associated advertisement. In my opinion, a POSITA would also understand this disclosure to teach that the client device provides the server with the “current location of the mobile communication device” so that the advertised fast food chain is one that is within the geographic location of the client device.

Ex. 1003 (Zagal Decl.) ¶¶ 113-114; Pet. 22

1[a]: Ho Discloses Providing a “Version Identifier” for Hot Spot Information

- Ho expressly teaches that interactive information elements (hot spots) may need to be updated or renewed over time.
- The server checks client information about the interactive information element to determine whether it needs to be “changed/renewed”

In another aspect of the present invention, there is also provided a method of incorporating at least one interactive information element into a video game. Referring to Figure 4, there may be a video game that has been published or in the midst of development (80). A module may be added to the video game that may either be published or in the midst of development (82). The module may enable the at least one interactive information element to be added such that the at least one interactive information element appears in the video game and is engageable. The module may allow the at least one interactive information element to be updated by automatically downloading and replacing relevant sub-modules of the interactive information elements in the video game whenever the player goes online. The module may

removed from the client end device (104). If the interactive information element(s) is found to be legitimate, the server check information on the client end device relating to the interactive information element(s) (106) and may include the downloading of the incidence of interactive information element(s) activation for processing as described in an earlier portion of the description. Subsequently, the server then determines whether the interactive information element(s) needs to be changed/renewed (108). If the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device (112). If change/renewal of the interactive information element(s) is not

Ex. 1004, 9:25-33, 10:9-16; Pet. 23-24; Reply 8-9

1[a]: Ho Discloses Providing a “Version Identifier” for Hot Spot Information

- Dr. Zagal: A POSITA would have understood/would have found obvious to use a version identifier to determine what information needs updating.
- Dr. Zagal: POSITA would have understood to assign version numbers to determine when to update software.

116. Ho also discloses that when contacted by the client device, the server must “determine[] whether the interactive information element(s) needs to be changed/renewed (108).” Ex. 1004, 10:14-19. “If change/renewal of the interactive information element(s) is not required, then the interactive information element(s) remains the same in the client end device (110).” *Id.* In my opinion, a POSITA would have understood this disclosure to teach and render obvious providing the server with “a version identifier” for the interactive information element currently on the mobile communication device so that the server can determine whether or not it needs to be replaced. Absent such an identifier, the server may send a client device an interactive information element that the mobile device already possesses, which would result in wasted bandwidth and system resources communicating the duplicative information. Moreover, because Ho teaches that its video game may be subject to ongoing development, with updated modules and interactive information elements (*i.e.*, new versions) being published over time (Ex. 1004, 9:25-27), a POSITA would have understood that these new versions should be assigned a version number so that the system can determine whether the mobile phone has the latest version of software. *See* Ex. 1020 (U.S. Pub. No. 2003/0100355), [0019] (“When new levels and/or versions are applied to the game the content provider modifies the games content. Modified games content has an associated identifier tag that identifies the version that has been used in its construction.”).

Ex. 1003 (Zagal Decl.) ¶¶ 116; Pet. 23; Reply 8-9

1[a]: Ho Discloses Providing a “Version Identifier” for Hot Spot Information

- Contemporaneous evidence confirms Dr. Zagal’s opinion: using version identifiers to keep track of different versions of content was well known in the art as early as 2003.
- PO’s new argument: other techniques **could** be used to determine what to update (Surreply 8-9)
 - The fact that other options may exist does not render the known technique of using a version identifier nonobvious.
 - PO’s alternative options (e.g., “last modified” date) are version identifiers in any event.

[0019] In order to afford variation in gameplay, built into the games software, typically, is the ability to have different levels of gameplay ranging in complexity. This is usually implemented in the software by making changes to characters, features, aspects and other parameters of the basic gameplay. The content provider may additionally create new levels and/or versions for the game. When new levels and/or versions are applied to the game the content provider modifies the games content. Modified games content has an associated identifier tag that identifies the version that has been used in its construction. Typically, the content provider continues to design and develop more challenging and innovative versions of the games, so the end user continues to remain interested and engaged. In addition, when these new levels are provided on an internet website for downloading therefrom, the mobile phone manufacturer or content provider benefits in increased traffic and stimulating content for the website.

Ex. 1020 (Hannay), ¶19; Pet. 23-24; Reply 9-10

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Ho expressly discloses that the server obtains data from the client end device, and the client data is used to determine what hot spot information (“interactive information elements”) to send.
- Ho’s interactive information elements may be used to display ads.

Referring to Figure 5, there is shown a preferred method of client end and server interaction for the present invention. Firstly, the client end device, such as, for example, a personal entertainment system, a video games console, a mobile telephone, a personal digital assistant, a notebook and a desktop computer may be activated and subsequently connected to a server via a network (100). The server may then obtain data from the client end device and determine whether the interactive information element(s) is legitimate (102) as the interactive information element(s) may be illegally modified. If the interactive information element(s) is found to be not legitimate, the interactive information element(s) is then removed from the client end device (104). If the interactive information element(s) is found to be legitimate, the server check information on the client end device relating to the interactive information element(s) (106) and may include the downloading of the incidence of interactive information element(s) activation for processing as described in an earlier portion of the description. Subsequently, the server then determines whether the interactive information element(s) needs to be changed/renewed (108). If the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device (112). If change/renewal of the interactive information element(s) is not

Ex. 1004 (Ho), 10:1-16; Pet. 20-21; Reply 3-5

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Aoki discloses providing user-identification information and a game identification to an ad server.

[0077] FIG. 8 is a flowchart explaining an advertising process executed at the time of activating a game terminal (an activation advertisement process). As shown, upon activation, a game terminal first reads its advertisement database to check whether or not there is any record with its “advertisement period” no longer including the present date (S101). When no such record is found, the process proceeds to S104. When any such record is found, on the other hand, the “advertisement point” included in that record is uploaded to the advertisement management server 50 (S102) along with the “advertisement ID”, also included in the record, and user information, such as the ID of the player who uses the game terminal. The information will be used in an advertisement charge process applied in the advertisement management server 50 (FIG. 12). Thereafter, at the game terminal, any record relating to any advertisement image with a past advertisement period is deleted (S103). Then, the game terminal downloads new advertisement data, containing an advertisement image, an advertisement ID, advertisement placement location data, and an advertisement period, from the advertisement management server 50 (S104). Specifically, the game terminal first sends to the advertisement management server 50 a game ID identifying a game to be performed at that game terminal, and in turn receives corresponding new, that is, undownloaded, advertisement data. Thereafter, the game terminal stores the advertisement

Ex. 1005 (Aoki), ¶77; Pet. 24; Reply 10-11

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- In the proposed combination, Aoki’s user identification information and game identifier are among the information sent when the server updates hot spot information

117. To the extent Ho does not disclose or render obvious this limitation, the combined teachings of Ho and Aoki render the limitation obvious in my opinion. For instance, Aoki discloses that a game terminal (e.g., a “telephone”) that is operable to run a video game provides an advertisement management server “the ID of the player who uses the game terminal” and a “game ID identifying a game” in order to obtain advertisements. Ex. 1005, [0077]. Thus, in my opinion, in the combined Ho-Aoki system the client end device would continue to download from the server interactive information elements and hidden content, and would do so after providing the server the ID of the player (“user-identification information”) and a game ID (“a game for which hot spot information is desired”). A POSITA would be motivated to provide the server a user ID and game ID so that advertisements can be targeted based on this information. Ex. 1008, [0054]-[0055] (describing various characteristics that may be used for targeting advertisements, including user information and game type).

Ex. 1003 (Zagal Decl.), ¶¶117; Pet. 24; Reply 10-11

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- PO argues: Aoki uses the user identification information for ad charging (POR 21-23)
 - This is irrelevant: the claims do not require the user identification information to be used in any particular way; only that it is sent with a request for hot spot information.

a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Dr. Zagal explains why a POSITA would be motivated to combine the references so that Aoki’s user-identification information is used to determine hot spot information to send.

106. **Third**, in my opinion, Ho and Aoki are all directed to the same types of improvements in game design and monetization that the ‘662 Patent purports to provide. For example, the ‘662 Patent purports to identify two ways in which hot spots may be used to improve video games: (1) reducing the loss of interest as a player becomes familiar with the game elements, and (2) providing opportunities for advertising. Ex. 1001, 1:28-32, 1:48-52, 1:66-2:2. Ho and Aoki identify similar improvements for video games. For example, Ho explains that its invention overcomes problems with “current forms of advertising in video games” that “do not engage the player during the course of game play” and do not easily allow for “update-able” gaming content. Ex. 1004, 1:26-38. Similarly, Aoki states that its invention is directed at increasing attention advertisements retrieved from a server may receive. Ex. 1005, [0006]-[0007]. In my opinion, a POSITA would have looked to Ho and Aoki when considering how to implement known video games that provide advertising content.

117. To the extent Ho does not disclose or render obvious this limitation, the combined teachings of Ho and Aoki render the limitation obvious in my opinion. For instance, Aoki discloses that a game terminal (e.g., a “telephone”) that is operable to run a video game provides an advertisement management server “the ID of the player who uses the game terminal” and a “game ID identifying a game” in order to obtain advertisements. Ex. 1005, [0077]. Thus, in my opinion, in the combined Ho-Aoki system the client end device would continue to download from the server interactive information elements and hidden content, and would do so after providing the server the ID of the player (“user-identification information”) and a game ID (“a game for which hot spot information is desired”). A POSITA would be motivated to provide the server a user ID and game ID so that advertisements can be targeted based on this information. Ex. 1008, [0054]-[0055] (describing various characteristics that may be used for targeting advertisements, including user information and game type).

Ex. 1003 (Zagal Decl.), ¶¶ 106, 117; Pet. 24; Reply 10-11

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Dr. Zagal cites contemporaneous evidence demonstrating that targeting advertising based on user information to increase user engagement was a well-known technique in the prior art.

[0054] Player-specific information may also be used for targeting, and may include player geographic information (e.g., country, region/state, city, and Direct Marketing Associate (DMA) areas), and player demographics (e.g., gender, age, purchase history, etc.), and game play behavior (e.g., play 80% of time on weekends, play sports titles and racing only, play for average of 4 hours per game session, etc.). Player-specific information derived from a player's IP address may be used for targeting, such as geographic information (e.g., postal/zip code, area code, longitude, and latitude), root domain (e.g., .edu vs. .com), and specific domains/ISPs (e.g., *.aol.com). Other types of targeting information include targeting by game network (e.g., target the "EA Sports" network), targeting by client version, targeting based on multiplayer participation, targeting by arbitrary user list (e.g., specific player IDs are collected into lists based on demographic or other criteria: "All player IDs known to have played a car driving game might be shown Toyota advertisements in a different game."), OS or hardware versions, etc. It may be possible to obtain player specific information from other sources, such as partner databases. cookies associated with click through advertisements may also be used to track/collect player specific information. For example, if a player clicks on a click through game advertisement to purchase a pair of jeans, this information may be collected. Many other data collection techniques are possible, some of which may be implemented by tracking the activities that occur in association with a game playing device.

Ex. 1003 (Zagal Decl.), ¶¶117; Ex 1008 (Sturman), ¶¶54-55; Pet. 24; Reply 11-12

1[a]: Ho + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Other contemporaneous evidence also corroborates Dr. Zagal’s motivation to combine.

[0043] Game advertisements are generally produced by the game publishers or advertisers to which the game publisher has sold the ad locations and opportunities. The publishers or advertisers may require game players to match a preferred profile or to fulfill certain game requirements before game players may view specific advertisements or promotions. For example, a player must have accumulated a certain amount of points or playing time before being allowed to view an advertisement for a more sophisticated weapon to be used within the game or a player must 21 years or older to be allowed to view the advertisement that contains a free coupon for a six pack of beer. Such require-

Ex. 1022 (Chu), ¶¶42-43

With respect to genres, as described above with reference to FIG. 2, because all types of ads may not be suitable for all game users, embodiments of the dynamic inserter allow the game client system to specify certain genres, or classes of ads that are not acceptable to that game client. Similar to the list of types described above, the list of all of the genres in a game could be sent in step 601, or the individual genre matching an ad tag could be sent as the ad tags are individually found in the game. An example genre of ads may be beer or other alcohol type ads, which should not be targeted to those too young to purchase such products. In that case, the game client system 106 would indicate to the ad server that such a genre of advertisements is unacceptable; and such ads would not be inserted into the game. (Note, as above, that such control can take place at the server or the client side of the communication.) Also, many games feature some parental control

Ex. 1009 (Ellis), 17:47-63

Claims 7 and 13: No New Arguments by PO

- PO's arguments for claim 7 and claim 13 refer back to the arguments on “version identifier” and “user-identification information” in Limitation 1[a].
- PO is wrong for the same reasons as in Limitation 1[a].

Because Ho, in view of Aoki, does not render independent claim 1 obvious, Ho, in view of Aoki, does not render obvious dependent claims 2–12. Additionally, claim 7—which requires “saving on the mobile communication device a version identifier for the downloaded hot spot information”—is not rendered obvious for the reasons discussed above with respect to claim 1[a].

For the reasons discussed with respect to claim 1[a], Petitioner has failed to demonstrate that the combined teachings of Ho and Aoki render obvious “contacting a server for hot spot information to download, comprising providing the server with user-identification information,” as required by claim 13.

Ground 2: Jiau in view of Aoki

Ground 2: Summary of Arguments

Patent Owner's Arguments	Claims
Jiau does not teach "Downloading hot spot information from the server. . ." (Claim 1[b]/13[b])	1-12, 13-20
Jiau does not teach "further comprising saving on the mobile communication device a version identifier for the downloaded hot spot information."	7
Jiau does not teach "the hidden content comprises a second hot spot"	12
Jiau in view of Aoki does not teach "Contacting a server for hot spot information to download, comprising providing the server with user-identification information" (Claim 13[a])	13-20

1[b]/13[b]: Jiau Discloses “Downloading” Hot Spot Information

- Jiau’s client loads “lots and objects” from server system
- Jiau makes clear that the lot file containing the lot and objects is “sent to the client and stored”
- Fig. 17 shows the lot file includes hotspot information (objects with links and coordinates)
- Nowhere do these disclosures limit storage of hotspots to “caches”

108 at any time. All three client systems and the server system include software for loader/network (NW) communication software 114 that allows a client system to communicate with server system 108 in order to load lots and objects from server system 108, and to receive broadcast messages from server system 108. Although only one server system

Fig. 17 shows an example of a file format describing a lot and the objects therein. The file format is a file storing information for a lot. A file preferably includes a header and a linked list of objects associated with the lot. Each lot has a lot id and ownership and permission attributes (not shown, since they are in a separate file). Each object has an object id, a description of the object, and a link. The lot file is preferably sent to the client and stored in the client in the format shown. The lot file can be stored in the same format on the

```
typedef struct
{
    DWORD dwObjectID; // source of link
    LINKEVENT link; // source of link
    float fx, fy, fz; // init position
    float fdx, fdy, fdz; // init orientation
    float fux, fuy, fuz;
} FOREVER21LINK;
```

Ex. 1006, 6:31-7:2, 19:27-20:3, Fig. 17; Pet., 44-46, Reply 15-16

1[b]/13[b]: Jiau Discloses “Downloading” Hot Spot Information

- Jiau expressly discloses that the client includes memory for storage
- Jiau also expressly discloses that lots and objects may be stored in “local memory”
- PO’s new argument that “the only type of storage of lots” in Jiau is in a “cache” is based on non-limiting embodiments

It will be understood that client systems 102, 104, 106 and server system 108 are computers or similar data processing systems having one or more processors and appropriate data storage, such as memory or mass-storage devices. Word play software 112, world

system 106 requests the lots and/or objects needed to display an initial user location. It is possible that these lots (or any lots shown as fetched from the server) are stored in cache or a similar local memory in the user’s system 106. In steps 802 and 804 rendering engine

of these lots are visible to the user and some are not. In the described embodiment, as lots are loaded into the client system, they are cached by the client system to avoid having to reload from the server. Thus, whenever a lot (or object) is needed, it is loaded from the server if it

Ex. 1006, 7:7-8, 10:3-5, 13:12-14; Reply 15-16; Surreply 17

1[b]/13[b]: PO's Argument Is Based on Erroneous Claim Construction

- PO's Argument that "downloading" cannot include "caching" is contrary to plain meaning

download ^{1 of 2} noun

down·load ˈdaʊn-ˌlɒd

computers

: an act or instance of transferring something (such as data or files) from a usually large computer to the memory of another device (such as a smaller computer) : an act or instance of downloading (see [DOWNLOAD entry 2](#)) something

faster *downloads*

also : the item downloaded

two *downloads*

- Contemporaneous references confirm that a POSITA would understand "download" to encompass downloading into a cache

Cache manager 74 downloads from server 26 the blocks 42 and/or sub-blocks 43 required by renderer 72, if they are not already stored in cache memory 32, and meanwhile provides replacement blocks from the cache memory.

Reply 16-17; Ex. 1026 (Merriam-Webster); Ex. 1027 at 11:61-65 (US6496189, Dec. 2002)

1[b]/13[b]: PO's Argument Is Based on Erroneous Claim Construction

- PO's cited cases do not control here.



This court observes that fleeting or transient retention does not qualify as **the kind of downloading defined by these claims**. The '505 specification at one point describes the "download[ing]" of data corresponding to anticipated information requests into a "smart cache," which is used as a temporary buffer, and which is over-written upon receipt of new information in a later request. ... This discussion of the smart cache in column 9 is thus further evidence that "downloading" requires capacity for non-transient data retention, because only retained data could be used to service the user's "future information requests." ... Also, the specification describes that selected data from the smart cache "can be moved to other areas of the user's hard disk," while unused data from the smart cache are overwritten with new data. ... Thus, **"downloading" as used in the patent requires something more than just transient retention of data.**

Finisar Corp. v. DirectTV Group, Inc, 523 F.3d 1323, 1329 (Fed. Cir. 2008)

Claim 7: Jiau Discloses Storing “Version” Information for an Object

197. For example, as I discussed above, Jiau discloses maintaining on the client and server “object ids,” wherein an object may have a hot spot or hotspot. Ex. 1006, 17:14-18:9. In my opinion, a POSITA would have readily understood that an object id may be updated when an object is changed or modified, such that the object id would constitute a version identifier. Additionally, Jiau discloses and renders obvious that a file describing a lot or object may have “version” information as part of the header definition. Ex. 1006, Fig. 17 (showing file header of type “FOREVER21HEAD” having variable “short nVersion”), 19:27-20:3 (“Fig. 17 shows an example of a file format describing a lot and the objects therein.... The lot file is preferably sent to the client and stored in the client in the format shown.”).

Ex. 1003, ¶197

Fig. 17 shows an example of a file format describing a lot and the objects therein.

The file format is a file storing information for a lot. A file preferably includes a header and a linked list of objects associated with the lot. Each lot has a lot id and ownership and permission attributes (not shown, since they are in a separate file). Each object has an object id, a description of the object, and a link. The lot file is preferably sent to the client and stored in the client in the format shown. The lot file can be stored in the same format on the server or can be stored as a database on the server and converted to the format shown before being sent to the client.

```
typedef struct
{
    char szID[2];
    short nVersion;
    long lNumOfObj;
    long lObjOffset;
    float fminx, fminy, fminz; // land size
    float fmaxx, fmaxy, fmaxz;
} FOREVER21HEAD;
```

Ex. 1006, 19:27-20:3, Fig. 17; Pet., 53-54.

Claims 12/20: Jiau Discloses a “Second Hotspot”

- Jiau discloses an object (e.g., a house) with a “hotspot link” (e.g., a door) that displays a hidden “interior”

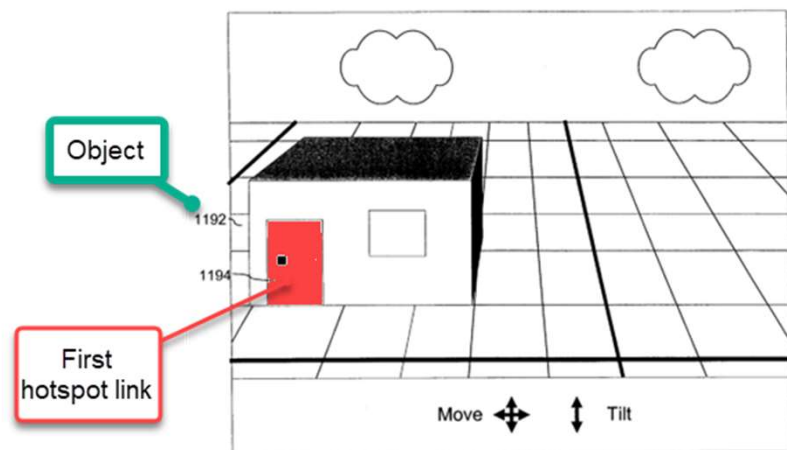


Fig. 11(e)

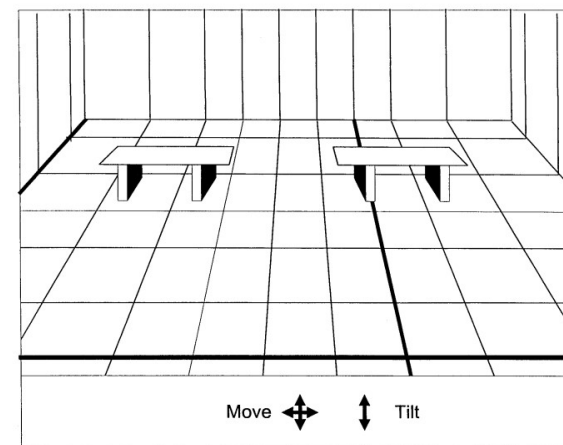


Fig. 11(f)

Fig. 11(e) shows an example of an object 1192 having an hotspot link 1194 (e.g., a door-shape) allowing a user to enter an interior of the object. In the example, the user enters the interior of the object when he activates the hotspot 1192 (i.e., when he collides with or passes sufficiently close to the hotspot). Fig. 11(f) shows an example of an interior of object 1192 of Fig. 11(e). When a user activates hotspot 1194 of Fig. 11(e), the user passes to the interior of object 1192 and client computer 106 renders an interior view of the object. The

Ex. 1006, 15:17-31, Figs. 11(e)-(f); Pet. 55-56

Claims 12/20: Jiau Discloses a “Second Hotspot”

- The hidden content (*i.e.*, the “interior”) may have additional objects (*e.g.*, furniture)
- The additional objects may have their own hotspots (*i.e.*, a second hot spot), like all other objects in Jiau.

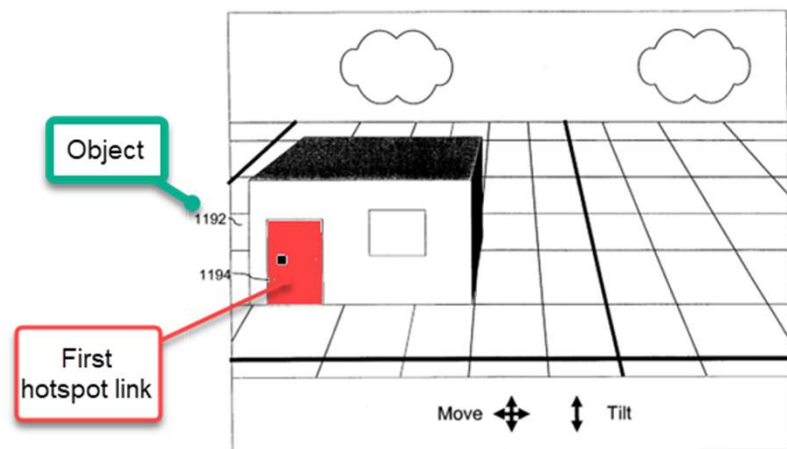


Fig. 11(e)

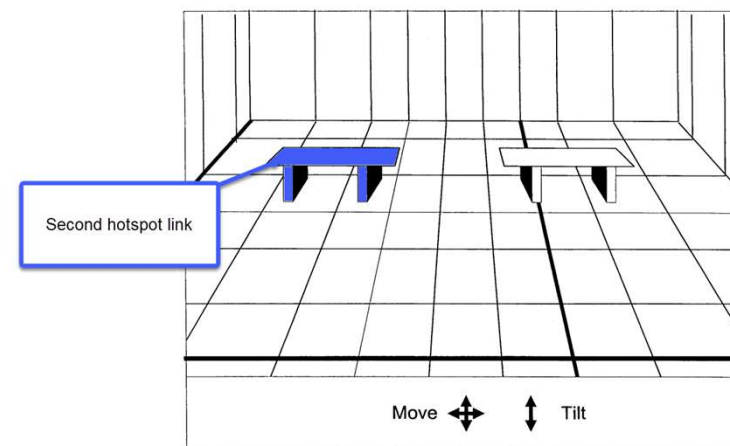


Fig. 11(f)

Ex. 1006, 15:17-31, Figs. 11(e)-11(f)

Claims 12/20: Jiau Discloses a “Second Hotspot”

- Dr. Zagal: Jiau’s disclosure of objects with a “plurality of hot spots” with “different hotspot activities” confirms that objects in a hotspot link (e.g., the furniture in Fig. 11(f)) may have a second hot spot.
- PO: Jiau does not expressly teach the furniture in Fig. 11(f) has a hot spot (POR 45)
 - Jiau teaches that **any** object may have a hotspot
 - Jiau’s disclosure of a “plurality of hotspots” confirms the furniture in Fig. 11(f) may be a second hotspot

206. For example, Jiau teaches that an object may be associated with “a plurality of hot spots” (Ex. 1006, Claim 8) and that each hot spot may be “activated separately” with “different hotspot activities associated therewith” (*id.*, Claims 9-10). For instance, Jiau discloses that “Fig. 11(e) shows an example of an object 1192 have a hotspot link 1194 (e.g., a door-shape).” Ex. 1006, 15:17-31. When a user activates the hotspot, for instance “when he collides with or passes sufficiently close to the hotspot,” hidden content may be displayed, such as the “interior of object 1192” that is shown in Figure 11(f). *Id.* The hidden content, for instance, the furniture in the building interior (yellow) may comprise additional hot spots which are similarly activated when a user “collides with or passes sufficiently close” to them:

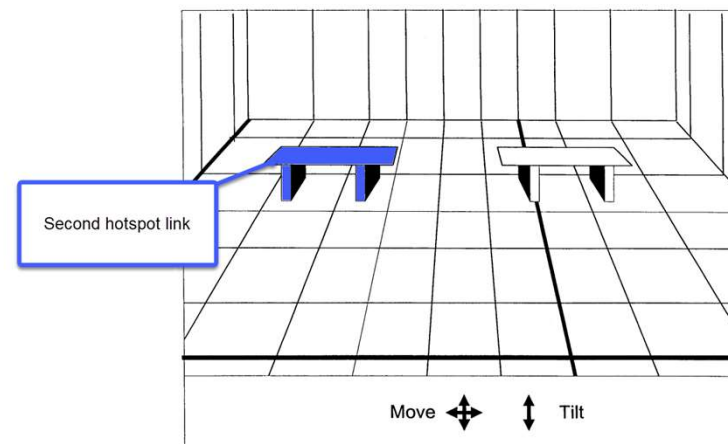


Fig. 11(f)

Ex. 1003, ¶206; Ex. 1006, 15:17-31, Cl. 8-9, Figs. 11(e)-11(f); Pet. 55-56

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Jiau discloses maintaining a “user id” that may be associated with lots and objects.
- The “user id” is among the data sent between the server and client.

Fig. 13(b) is an example of a data structure showing properties of a lot stored in server system 108. The data structure of Fig. 13(a) is an example of the information sent between the server system and the client system. The exemplary properties of Fig. 13(b) include a name 1352, a unique lot id 1354, a type of object 1356 (for example, avatar, movable by user, non-movable, moves under own power and algorithm, has an interior/exterior), list of hotspots and hotspaces 1358, pointer/reference to object database (either explicitly by lot or by user id) 1360, user id of this object 1362, permissions of this object 1364 (e.g., R, R/W, none, admin), list of interactive properties associated with this object (e.g., pop-up ads) 1366.

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Aoki discloses providing user-identification information and a game identification to an ad server.

[0077] FIG. 8 is a flowchart explaining an advertising process executed at the time of activating a game terminal (an activation advertisement process). As shown, upon activation, a game terminal first reads its advertisement database to check whether or not there is any record with its “advertisement period” no longer including the present date (S101). When no such record is found, the process proceeds to S104. When any such record is found, on the other hand, the “advertisement point” included in that record is uploaded to the advertisement management server 50 (S102) along with the “advertisement ID”, also included in the record, and user information, such as the ID of the player who uses the game terminal. The information will be used in an advertisement charge process applied in the advertisement management server 50 (FIG. 12). Thereafter, at the game terminal, any record relating to any advertisement image with a past advertisement period is deleted (S103). Then, the game terminal downloads new advertisement data, containing an advertisement image, an advertisement ID, advertisement placement location data, and an advertisement period, from the advertisement management server 50 (S104). Specifically, the game terminal first sends to the advertisement management server 50 a game ID identifying a game to be performed at that game terminal, and in turn receives corresponding new, that is, undownloaded, advertisement data. Thereafter, the game terminal stores the advertisement

Ex. 1005 (Aoki), ¶77; Pet. 43-44; Reply 19-20

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- In the proposed combination, Aoki’s user identification information and game identifier are among the information sent when the server updates hot spot information

171. Furthermore, to the extent Jiau does not disclose or render obvious this limitation, in my opinion, the combined teachings of Jiau and Aoki render the limitation obvious. For example, Aoki discloses that a game terminal (e.g., a “telephone”) that is operable to run a video game provides an advertisement management server “the ID of the player who uses the game terminal” and a “game ID identifying a game” in order to obtain advertisements. Ex. 1005, [0077]. Thus, in my opinion, in the Jiau-Aoki combination, the client end device would continue to download hotspot and hotspot information, and would do so after providing the server the ID of the player (“user-identification information”) and a game ID (“a game for which hot spot information is desired”). A POSITA would be motivated to provide the server a user ID and game ID so that advertisements can be targeted based on this information. Ex. 1008, [0054]-[0055] (describing various characteristics that may be used for targeting advertisements, including user information and game type).

Ex. 1003 (Zagal Decl.), ¶171; Pet. 43-44; Reply 19-20

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- PO argues: Aoki uses the user identification information for ad charging (POR 49-51)
 - This is irrelevant: the claims do not require the user identification information to be used in any particular way; only that it is sent with a request for hot spot information.

a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Dr. Zagal explains why a POSITA would be motivated to combine the references so that Aoki’s user-identification information is used to determine hot spot information to send.

162. Third, Jiau and Aoki are all directed to the same types of improvements in game design and monetization that the ‘662 Patent purports to provide in my opinion. For example, the ‘662 Patent purports to identify two ways in which hot spots may be used to improve video games: (1) reducing the loss of interest as a player becomes familiar with the game elements, and (2) providing opportunities for advertising. Ex. 1001, 1:28-32, 1:48-52, 1:66-2:2. Likewise, Jiau and Aoki identify similar improvements for video games. For example, Jiau is directed at improving prior art video games that involved “predefined virtual worlds that do[] not change,” including by providing customizable “lots” and “objects” that are stored at and retrieved from a server during gameplay. Ex. 1006, 1:31-2:21, 6:24-7:6, 7:23-25. Objects and background elements may have interactive “hotspots” or “hotspaces” that perform an activity in the virtual world when activated by a player, such as displaying an advertisement. *Id.*, 3:22-4:11, 15:9-16:2, 16:29-17:6. Similarly, Aoki states that its invention is directed at increasing attention advertisements retrieved from a server may receive. Ex. 1005, [0006]-[0007]. In my opinion, a POSITA would have thus looked to Jiau and Aoki when considering how to implement known video games that provide advertising content.

171. Furthermore, to the extent Jiau does not disclose or render obvious this limitation, in my opinion, the combined teachings of Jiau and Aoki render the limitation obvious. For example, Aoki discloses that a game terminal (e.g., a “telephone”) that is operable to run a video game provides an advertisement management server “the ID of the player who uses the game terminal” and a “game ID identifying a game” in order to obtain advertisements. Ex. 1005, [0077]. Thus, in my opinion, in the Jiau-Aoki combination, the client end device would continue to download hotspot and hotspace information, and would do so after providing the server the ID of the player (“user-identification information”) and a game ID (“a game for which hot spot information is desired”). A POSITA would be motivated to provide the server a user ID and game ID so that advertisements can be targeted based on this information. Ex. 1008, [0054]-[0055] (describing various characteristics that may be used for targeting advertisements, including user information and game type).

Ex. 1003 (Zagal Decl.), ¶¶162, 171; Pet. 43-44; Reply 19

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Dr. Zagal cites contemporaneous evidence demonstrating that targeting advertising based on user information to increase user engagement was a well-known technique in the prior art.

[0054] Player-specific information may also be used for targeting, and may include player geographic information (e.g., country, region/state, city, and Direct Marketing Associate (DMA) areas), and player demographics (e.g., gender, age, purchase history, etc.), and game play behavior (e.g., play 80% of time on weekends, play sports titles and racing only, play for average of 4 hours per game session, etc.). Player-specific information derived from a player's IP address may be used for targeting, such as geographic information (e.g., postal/zip code, area code, longitude, and latitude), root domain (e.g., .edu vs. .com), and specific domains/ISPs (e.g., *.aol.com). Other types of targeting information include targeting by game network (e.g., target the "EA Sports" network), targeting by client version, targeting based on multiplayer participation, targeting by arbitrary user list (e.g., specific player IDs are collected into lists based on demographic or other criteria: "All player IDs known to have played a car driving game might be shown Toyota advertisements in a different game."), OS or hardware versions, etc. It may be possible to obtain player specific information from other sources, such as partner databases. cookies associated with click through advertisements may also be used to track/collect player specific information. For example, if a player clicks on a click through game advertisement to purchase a pair of jeans, this information may be collected. Many other data collection techniques are possible, some of which may be implemented by tracking the activities that occur in association with a game playing device.

Ex. 1003 (Zagal Decl.), ¶¶171; Ex 1008 (Sturman), ¶¶54-55; Pet. 43-44; Reply 19

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- Other contemporaneous evidence also corroborates Dr. Zagal’s motivation to combine.

[0043] Game advertisements are generally produced by the game publishers or advertisers to which the game publisher has sold the ad locations and opportunities. The publishers or advertisers may require game players to match a preferred profile or to fulfill certain game requirements before game players may view specific advertisements or promotions. For example, a player must have accumulated a certain amount of points or playing time before being allowed to view an advertisement for a more sophisticated weapon to be used within the game or a player must 21 years or older to be allowed to view the advertisement that contains a free coupon for a six pack of beer. Such require-

Ex. 1022 (Chu), ¶¶42-43

With respect to genres, as described above with reference to FIG. 2, because all types of ads may not be suitable for all game users, embodiments of the dynamic inserter allow the game client system to specify certain genres, or classes of ads that are not acceptable to that game client. Similar to the list of types described above, the list of all of the genres in a game could be sent in step 601, or the individual genre matching an ad tag could be sent as the ad tags are individually found in the game. An example genre of ads may be beer or other alcohol type ads, which should not be targeted to those too young to purchase such products. In that case, the game client system 106 would indicate to the ad server that such a genre of advertisements is unacceptable; and such ads would not be inserted into the game. (Note, as above, that such control can take place at the server or the client side of the communication.) Also, many games feature some parental control

Ex. 1009 (Ellis), 17:47-63

13[a]: Jiau + Aoki Render Obvious Providing “User-Identification Information” and “Game” for Hot Spot Information

- PO: Proposed combination is “contrary to [the] intended purpose of Jiau” because Jiau’s lots are “stored on a remote server for common access” POR 51-52
 - The fact that all users can access a particular lot does not teach away from combining with Aoki for targeted advertising
 - Nothing in Jiau prevents a particular lot from delivering targeted content to other users that visit
 - Nothing in Jiau prevents lots from being targeted to particular users based on their user information
 - Jiau expressly discloses advertisements for products that cater to particular demographics (e.g., Forever21)