

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TWITCH INTERACTIVE, INC.
Petitioner,

v.

CP STUDIOS LLC
Patent Owner.

Patent No. 10,632,388

Inter Partes Review No. IPR2026-00397

DECLARATION OF HENRY H. HOUH

I, Henry H. Houh, make this declaration in connection with the proceeding identified above.

I. INTRODUCTION

1. I have been retained by counsel for Petitioner Twitch Interactive, Inc. (“Twitch”) as a technical expert in connection with the proceeding identified above. I submit this declaration in support of Twitch’s Petition for *Inter Partes* Review of United States Patent No. 10,632,388 (“the ’388 patent”).

2. I am being compensated at my normal rate, plus reimbursement for expenses, for my analysis. My compensation does not depend on the content of my opinions or the outcome of this proceeding.

II. EXPERIENCE AND QUALIFICATIONS

3. In formulating my opinions, I have relied upon my knowledge, training, and experience in the relevant art. My qualifications are stated more fully in my *curriculum vitae*, which has been provided as Appendix A. Here, I provide a brief summary of my qualifications.

4. I am over the age of 18 and am competent to make this declaration. I have personal knowledge or have developed knowledge of these technologies based upon education, training, or experience, of the matters set forth herein.

5. I worked at BBN Technologies from 2004 to 2009. BBN Technologies, formerly known as Bolt, Beranek and Newman, was a pioneer of the

Internet and a long-established leader in speech recognition and natural language processing. In 2006 or 2007, while I was working at BBN, I created a social networking website, called “GroupOf” that focused on privately sharing content with people within specific circles. A user could upload photographs to the website for sharing, as well as comment on user postings and photographs. The website was purchased by Eons, Inc., a social networking web site company founded by Jeff Taylor who had previously founded Monster.com, the job search site, where I became the Chief Technology Officer. Eons was venture-funded, including investments from CRV (also funded Twitter and Ring), Sequoia Capital (also funded Google, Apple, NVIDIA, and Uber), and General Catalyst (also funded Airbnb and Snap). Eons also featured a section focused on web-based games, and during my time there, I investigated focusing on social-based gaming as a way to deepen our social networking users’ affinity and use of our social networking web site.

6. Around 2013, after founding a kids’ educational maker space, Einstein’s Workshop, we created and developed BlocksCAD, a 3D CAD system for kids and adults which they could use to make 3D models. BlocksCAD is used world-wide and had hundreds of thousands of users. As part of the development of BlocksCAD, we launched a social sharing web site where users could share their 3D models, comment on other’s models, and derive creations from other users’

models. BlocksCAD is being used in maker spaces worldwide and is integrated into school curriculum in various school systems in the U.S. at elementary, middle and high school levels. BlocksCAD was spun out into a separate company that was part of the LearnLaunch business accelerator program for educational technologies, MIT Playlabs 2018 and the 2018 MassChallenge Boston Cohort. BlocksCAD also received Phase 1 SBIR funding.

7. Also, at Einstein's Workshop, we also taught game development for mobile devices, for which I evaluated a number of mobile application programming environments and helped develop the class.

8. My other experience was in the area of networking, computer systems, and distributed applications. In graduate school, my research and work experience was focused on distributed systems, networking, and network architecture and dates back to the 1990s when I was part of the Telemedia, Networks, and Systems group ("TNS") within the Laboratory for Computer Science at MIT. During the early part of my graduate studies, a time when there were perhaps a hundred or so web servers in existence, I set up a web server on one of our lab computers, and created content rich web pages for my research group and my research activities.

9. Eventually, I, together with others I was working with, added live video demonstrations to our research group's web site. The TNS group's web site

was one of the first several hundred web servers to exist, and the first to offer live video demonstrations initiated from the web site to a user's remote computer. I helped to build the web pages that initiated these video sessions via a web interface. I started and maintained the "Commercial Sites Index," a listing of all the companies on the web. I later sold this list to OpenMarket, then a leader in web servers and eCommerce servers.

10. Vice-President Al Gore visited our group in 1996 and received a demonstration of – and remotely drove – a radio controlled toy car with a wireless video camera mounted on it; the video was encoded by TNS-designed hardware, streamed over the TNS-designed network and displayed using TNS-designed software.

11. I authored or co-authored at least twelve papers and conference presentations on my group's research at TNS. I also co-edited TNS's final report on its gigabit networking research effort. Some of my papers about web site development were presented at the first World-Wide Web conference held in 1994 at CERN in Geneva, Switzerland. CERN is the birthplace of the Web, and the conference was chaired by Tim Berners-Lee, the inventor of the World-Wide Web. When Tim Berners-Lee formed the World Wide Web Consortium at the MIT LCS in order to manage the progression of web protocols and standards, I assisted him

in obtaining the consortium's domain names and setting up the consortium's web server.

12. From 1999-2004, I was employed by Empirix or its predecessor company, Teradyne. Empirix was a leader in test tools for telecommunications protocols and systems, providing functional testing tools as well as load testing tools.

13. As discussed earlier, I worked at BBN Technologies from 2004 to 2009. BBN received the first contract to build components of a packet switched network as part of the ARPANET, a U.S. Department of Defense effort funded through the Advanced Projects Research Agency (ARPA). While this effort preceded my time at BBN by many years, BBN continued to maintain a strong presence in network research and development, including in wireless networking, device discovery, and protocols for a "body area network."

14. In 2006, as part of my role at BBN Technologies, I helped found PodZinger Inc., now known as RAMP Inc. PodZinger utilized BBN's speech recognition algorithms to search through the spoken words inside audio and video. After managing the creation of the initial prototype system, PodZinger built out a full web-based streaming audio and video search solution when I was the Vice President of Operations and Technology there. The web site had a full load-

balanced back end that provided search and indexing solutions for our hosted multimedia (audio and video) content.

15. In 2012, I founded Einstein's Workshop, a science, technology, engineering and math enrichment program for kids of all ages. The Workshop teaches programming, robotics, "making" (akin to creating, building and tinkering), engineering, 3D CAD, mobile application development and many other subjects. Einstein's Workshop teaches a variety of programming classes from Scratch to Java. As mentioned above, we also taught game development for mobile devices. I also developed a robotics programming class in which robots could be programmed to be autonomous or under direct wireless control.

16. Additional details concerning my professional qualifications, experience, and publications are set forth in my curriculum vitae ("CV"), which is attached as Appendix A.

III. MATERIALS CONSIDERED

17. In preparing this declaration, I have reviewed, among other things, the '388 patent and file history. I have also considered each of the documents cited in this Declaration and the documents specifically identified below and in the Exhibit List. In formulating my opinions, I have further relied upon my extensive experience in the relevant fields.

IV. OVERVIEW OF THE '388 PATENT

A. Filing Date and Priority Dates

18. The '388 patent was filed on February 9, 2017, and issued on April 28, 2020. The '388 patent claims earliest priority to a U.S. provisional application filed on May 7, 2012, which I am informed that the Petitioner treats as the earliest effective filing date only for purposes of this proceeding.

B. Specification

19. The '388 specification describes well-known ways to integrate social networking with video games at the time. (*Infra* §IX.A.) It broadly describes “video gaming applications,” which “may be hosted or accessed via social networks, other third-party services or on third-party servers, stand-alone platforms, tablets, smartphones or the like.” (EX1001, Title, 2:36-39.) A player of a video gaming application can post a *gameplay activity* on a *social network*. As shown in FIG. 22A, a player (“Corey Smith”) of an “aviation video gaming application” has posted a *gameplay activity* (“Corey is visiting Jordan’s Airport”) on a *social network*.¹ (*Id.*, 17:31-33.)

¹ Emphases and/or annotations added unless specified.

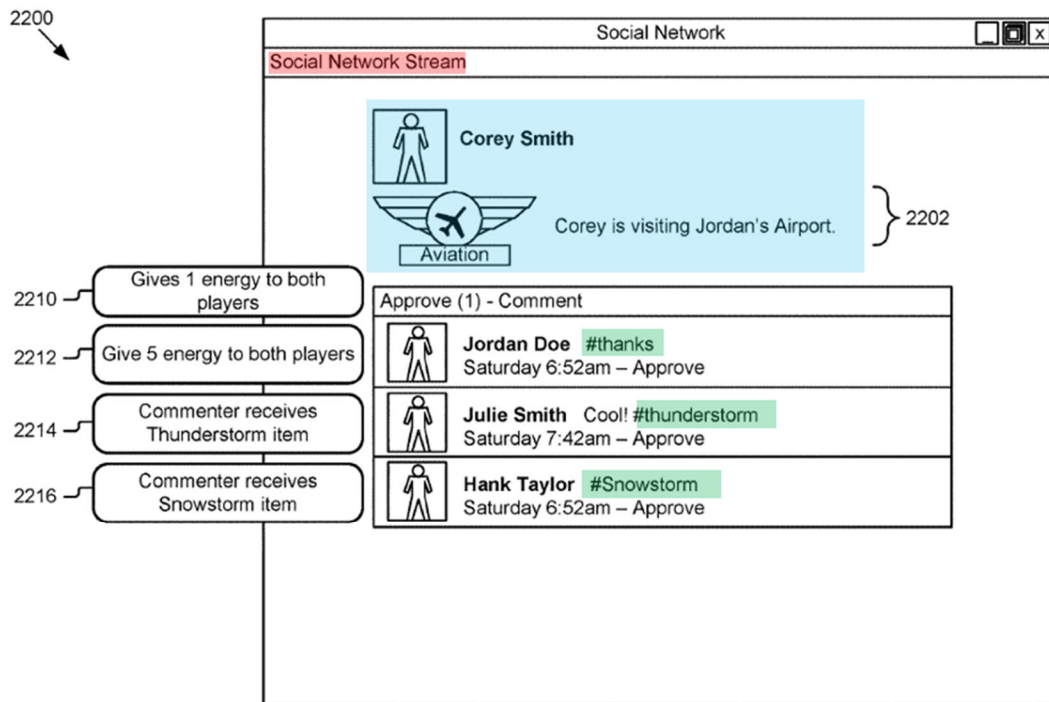


Figure 22A

20. The '388 specification describes that social network users can use commonplace ways to “interact” with the post, for example, by *clicking* or *commenting* on the post. (EX1001, 27:9-10.) A “player who *clicked* ‘like’ receives . . . [e]nergy points.” (*Id.*, 18:40-42.) Further, users can *comment* on the post to provide “keyword-based participation.” (EX1001, 27:10.) In FIG. 22A, for a comment “*#thanks*” by another player of the game (Jordan Doe), “five energy points are given to both players” in the game. (*Id.*, 21:17-19.) For a comment “*#thunderstorm*” from another player of the game (Julie Smith), “the commenter receives a thunderstorm item (in-game item).” (*Id.*, 21:19-21.)

21. Alternatively, if the commenter is not a player of the game, for a comment “*#thanks*,” “two energy points are given to the player (i.e., poster).” (EX1001, 21:32-33.) For a comment “*#thunderstorm*,” “the player’s (i.e., poster) airport is hit by a thunderstorm.” (*Id.*, 21:34-35.)

22. FIG. 12 illustrates a workflow of the aviation game. A player “perform[s] an action within the game” in block 1204 and “post[s] a *description of the action* in a *social network feed*.” (EX1001, 17:7-13.) The player may “*receive one or more rewards* based on events from the social network feed and/or player *interactions*.” (*Id.*, 17:15-17.)

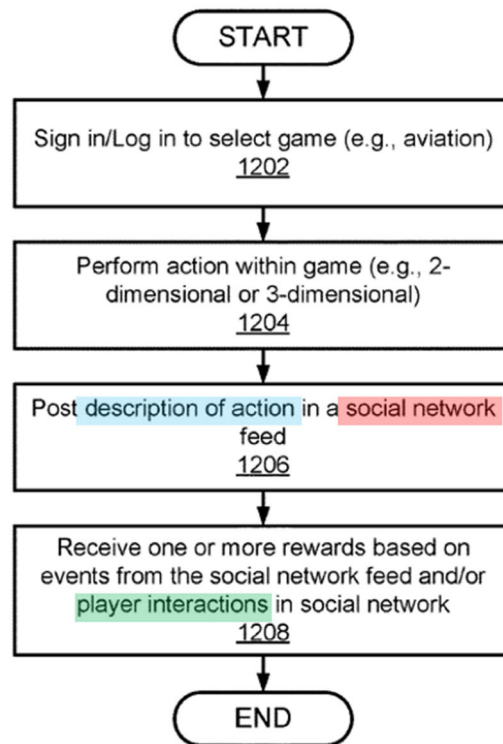


Figure 12

C. Claims

23. I was asked to evaluate whether claims 1-23 of the '388 patent are patentable.

24. There are three independent claims. Claim 1 is directed to a computer-implemented method for providing a video gaming environment hosted on a server to one or more users. The computer-implemented method comprises: (1) providing access to the video gaming environment, by the server, to the one or

more users via one or more user devices, the one or more user devices including a user interface configured to display the video gaming environment; (2) transmitting, by the server, a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment; (3) receiving, by the server, an interaction via the social online service of a second user with the content item on the social online service; (4) determining, by the server, an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service, and (5) modifying, by the server, the video gaming environment based on the influence. Claim 11 is directed to a system for hosting and providing a video gaming environment to one or more users. The system comprises: (1) one or more processors, and (2) a memory storing instructions. The memory storing instructions that, when executed by the one or more processors, cause the system to: (1) provide access to the video gaming environment to the one or more users via one or more user devices, the one or more user devices including a user interface configured to display the video gaming environment; (2) transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment; (3) receive an interaction via the social online service of a second user with the content item on the social online service; (4) determine an influence to the video gaming

environment based on the interaction via the social online service of the second user with the content item on the social online service, and (5) modify the video gaming environment based on the influence. Claim 20 is directed to a computer program product. The computer program product comprises a non-transitory computer usable medium including a computer readable program for hosting and providing a video gaming environment to one or more users. The computer readable program when executed on a computer causes the computer to: (1) provide access to the video gaming environment to the one or more users via one or more user devices, the one or more user devices including a user interface configured to display the video gaming environment; (2) transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment; (3) receive an interaction via the social online service of a second user with the content item on the social online service; (4) determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service, and (5) modify the video gaming environment based on the influence.

25. There are 20 dependent claims. Claim 2 requires the interaction of the second user with the content item to include a comment including a keyword. Claim 3 requires that the method to further comprise determining a keyword from

the interaction of the second user with the content item; and determining the influence to the video gaming environment based on the keyword.

26. Claim 4 requires the method to further comprise determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video gaming environment based on the gameplay status associated with the second user. Claim 5 requires the gameplay status to be selected from a group consisting of a core player status, a casual player status, and a non-player status.

27. Claim 6 requires the method to further comprise determining that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, applying the influence to a game item associated with the first user in the video gaming environment.

28. Claim 7 requires the method to further comprise determining that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, applying the influence to a game item associated with the second user in the video gaming environment.

29. Claim 8 requires the method to further comprise providing a reward to the first user in the video gaming environment responsive to receiving the interaction of the second user with the content item on the social online service.

30. Claim 9 requires the method to further comprise providing a reward to the second user in the video gaming environment responsive to receiving the interaction of the second user with the content item on the social online service, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.

31. Claim 10 requires the modifying of the video gaming environment based on the influence to include applying the influence to a game item in the video gaming environment; and responsive to applying the influence to the game item, preventing the influence from being applied to the game item for a predetermined time period.

32. Claim 12 requires that the interaction of the second user with the content item include a comment including a keyword.

33. Claim 13 requires the instructions, when executed, to cause the system to determine a keyword from the interaction of the second user with the content item; and determine the influence to the video gaming environment based on the keyword.

34. Claim 14 requires the instructions, when executed, to cause the system to determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment and determine the influence to the video gaming environment based on the gameplay status associated with the second user.

35. Claim 15 requires the instructions, when executed, to cause the system to determine that a gameplay status associated with the second user is a non-player status, and responsive to the gameplay status associated with the second user being the non-player status, apply the influence to a game item associated with the first user in the video gaming environment.

36. Claim 16 requires the instructions, when executed, to cause the system to determine that a gameplay status associated with the second user is a player status, and responsive to the gameplay status associated with the second user being the player status, apply the influence to a game item associated with the second user in the video gaming environment.

37. Claim 17 requires the instructions, when executed, to cause the system to provide a reward to the first user in the video gaming environment responsive to receiving the interaction of the second user with the content item on the social online service.

38. Claim 18 requires the instructions, when executed, to cause the system to provide a reward to the second user in the video gaming environment responsive to receiving the interaction of the second user with the content item on the social online service, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.

39. Claim 19 requires the instructions, when executed, to cause the system to apply the influence to a game item in the video gaming environment, and responsive to applying the influence to the game item, prevent the influence from being applied to the game item for a predetermined time period, to modify the video gaming environment based on the influence.

40. Claim 21 requires the server be a third-party server.

41. Claim 22 requires the server be a third-party server that hosts the video gaming environment.

42. Claim 23 requires the server be a social networking server that hosts the video gaming environment and the social online service.

D. Prosecution History

43. The application that matured into the '388 Patent was filed on February 9, 2017. (EX1001, 1.) Although the application received three Office Actions, the Examiner only issued *one Office Action* that cites prior art references that Applicant had to address on the merits. For the first two Office Actions,

Applicant rebutted the rejections by arguing that the cited references did not qualify as prior art. In response to the first Office Action dated June 29, 2018, Applicant argued that the primary reference (“Kosta”) does not qualify as prior art. (EX1003, 119.) In response to the second Office Action dated January 28, 2019, Applicant argued that Kosta’s provisional application, despite predating the alleged priority date, failed to support cited portions of Kosta. (*Id.*, 100-104.) Thus, the bulk of the prosecution focused not on the merits of the cited references, but on the threshold issue of whether the references qualified as prior art.

44. In the third and last Office Action, Applicant made a trivial amendment clarifying that the “interaction” is an “interaction via the social online service.” (EX1003, 44-50.) The Examiner then allowed the application. (*Id.*, 23.) However, by the time of the invention, social-network interactions, such as ***clicks***, ***comments***, ***views***, and ***likes***, on Facebook or Twitter, were already routine and ubiquitous. Likewise, video games that were updated or modified based on such interactions were well-known in the art, as explained herein. Yet despite the subject matter, the Examiner never cited or raised ***any*** contemporaneous game publications during prosecution.

45. The Examiner also cited as his reasons for allowance that he found “no teaching or suggestion” of “allow[ing] a user to post at least one ***comment***” and “determin[ing] if the at least one comment includes one or more ***keywords***” in

the Notice of Allowance. (EX1003, 28.) None of the independent claims recite “comment” or “keywords”; they recite a broader term—“interaction”—instead.

V. RELEVANT LEGAL STANDARDS AND DEFINITIONS

A. Obviousness

46. I have been informed that a claim is unpatentable if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the claimed subject matter was made to a POSITA to which the subject matter pertains. I have also been informed that a patent claim may be obvious to a POSITA in view of the prior art teachings of a single reference or a combination of references.

47. To assess obviousness, I have been informed that I am to consider the scope and content of the prior art, the differences between the prior art and the claim, the level of ordinary skill in the art, and any secondary considerations to the extent that they exist.

48. I have also been informed that there are principles that may be used as further guidance in obviousness analysis (especially when considering combinations of references), which include considering whether:

- the claimed subject matter is simply a combination of prior art elements according to known methods to yield predictable results;
- the claimed subject matter is a simple substitution of one known

element for another to obtain predictable results;

- the claimed subject matter uses known techniques to improve similar devices or methods in the same way;
- the claimed subject matter applies a known technique to a known device or method that is ready for improvement to yield predictable results;
- the claimed subject matter would have been “obvious to try” choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- there is known work in one field of endeavor that may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to a POSITA;
- there existed at the time of conception and reduction to practice a known problem for which there was an obvious solution encompassed by the patent’s claims; and
- there is some teaching, suggestion, or motivation in the prior art that would have led a POSITA to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed subject matter.

49. I have been informed that there are secondary considerations that may tend to show that a claimed invention would not have been obvious to a POSITA. These include, for example, commercial success, long-felt but unsolved needs, failure of others, and unexpected results. I have been further informed that there must be a relationship, or nexus, between any secondary considerations and the novelty of the claimed invention.

B. Prior Art

50. I am informed and understand that prior art includes patents and printed publications that existed before the effective filing date of the claimed invention. The effective filing date is the earliest claimed priority date or the earliest filing date of the application that describes the subject matter. A patent or published patent application is prior art if it was filed before the earliest filing date of the claimed invention, absent a few exceptions. I am informed that a patent or published patent application is entitled to have its effective filing date as the filing date of its provisional application if the disclosure of the provisional application provides support for the claim(s) of the patent or published patent application.

VI. LEVEL OF ORDINARY SKILL IN THE ART FOR THE '388 PATENT

51. I am informed and understand that various factors can be considered in determining a person of ordinary skill in the art (POSITA). I am informed and

understand that those factors include: (1) the education level of the inventors; (2) the type of problems encountered in the art; (3) prior art solutions to those problems; (4) the rapidity with which innovations are made; (5) sophistication of the technology; and (6) education level of active workers in the field.

52. A POSITA in the field of the '388 patent would have a bachelor or graduate degree in electrical engineering, computer engineering, computer science, or equivalent field, and two years of experience working on video games and/or social networking. A graduate degree in the disciplines cited above may make up for the work experience indicated above.

53. I agree with this level of ordinary skill for the '388 patent. Based on my experience, as described above and in Appendix A, I meet the definition of the qualifications of a POSITA, now and as of the alleged priority date. For purposes of this declaration, in general, and unless otherwise noted, my statements and opinions, such as those regarding my own experience, what a POSITA would have understood or known generally (and specifically related to the references I consulted herein), and how a POSITA would have understood and used the terminology found in the '388 patent, reflect the knowledge that existed in the relevant field at the time the '388 patent priority application was filed, and with the state of the art at that time.

VII. CLAIM CONSTRUCTION

54. I have been informed that claim construction requires consideration of the words of the claims themselves, the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art. I have also been informed that the specification is usually definitive, as it was the single best guide to the meaning of a disputed term. I have been informed that claim terms are presumed to carry their ordinary and customary meaning as understood by a POSITA at the time of the purported invention. I have been informed that, in the context of this proceeding, which requires the Board to construe the terms only to the extent necessary to resolve the issue at hand—unpatentability of the claims under 35 U.S.C. §103, Petitioner believes the Board need not construe any of the claims because, as set forth in the Declaration and Petition, the claims are unpatentable under 35 U.S.C. §103 under any reasonable interpretation, and thus, no claim construction is necessary to resolve any issue before the Board.

VIII. PRIOR ART

55. I understand that each of the references discussed herein qualifies as prior art against the '388 patent:

56. “FarmVille For Dummies” (the “FarmVille,” EX1004) was published by Wiley Publishing, by at least March 25, 2011. (*See* EX1021, 1.)

57. “Kickstarter Project – Tweet Land: Playing With Reality” (the “Tweet Land,” EX1005) was published by at least October 10, 2011. (*See* EX1024, 1-2, 9-10.)

58. “FarmVille Barn Raising Adds More Storage!” (“Calin,” EX1017) was published by at least January 14, 2010. (*See* EX1024, 1-2, 49-50.)

59. “Be Our Guest; Buy Our ROBUX” (“Shedletsky,” EX1009) was published by at least March 5, 2012. (*See* EX1024, 1-2, 52-53.)

60. U.S. Patent No. 8,671,019 (“Barclay ’019,” EX1006) was filed on March 2, 2012.

61. U.S. Patent Publication No. 2012/0184363 (“Barclay ’363,” EX1007) was filed on March 29, 2012.

62. U.S. Patent No. 8,790,182 (“Zynga patent,” EX1008) was filed on September 26, 2011.

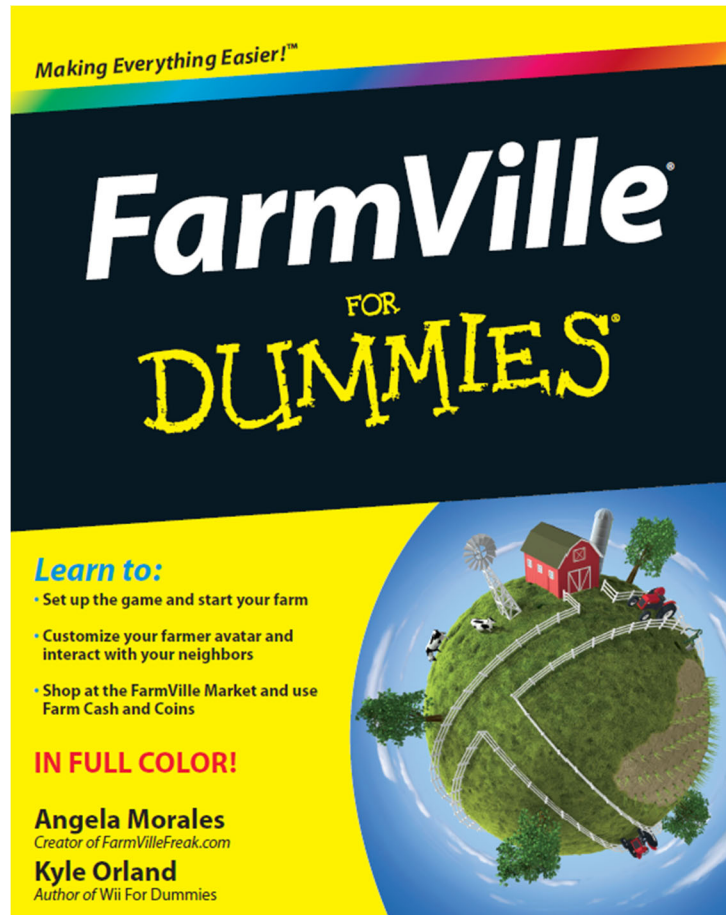
IX. ANALYSIS AND OPINIONS

A. Ground 1: FarmVille and Zynga Patent Render Obvious Claims 1, 4-5, 7-9, 11, 14, 16-18, 20-22

1. Summary of FarmVille

63. FarmVille was published/made publicly available at least by March 25, 2011, before the earliest provisional application filing date of the ’388 patent, and thus qualifies as prior art under §102(a) and (b). (*See* EX1021, 1.) The Examiner never found, and Applicant never cited, FarmVille during prosecution.

64. FarmVille is a 268-page guide to FarmVille, “the most popular Facebook application created to date.” (EX1004, 1.) FarmVille had “more than 50 million active players” by 2011. *Id.*

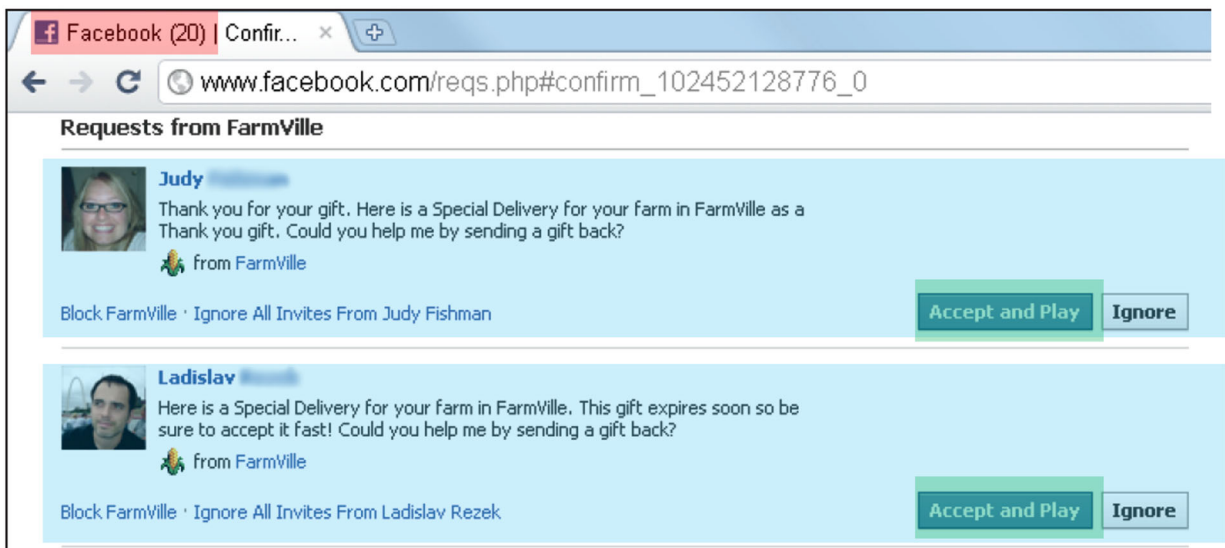


(EX1004, Cover.)

65. FarmVille is hosted on *FarmVille servers*. “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘the cloud’ of *FarmVille servers* maintained by developer Zynga.” (EX1004, 11.) The game can be accessed via a web browser (e.g., Facebook.com or FarmVille.com) or via a mobile app. (*Id.*, 16, 7, 24, 26.)

66. FarmVille players can post FarmVille-related content on their Facebook newsfeed: “news posts can involve everything from opportunities to adopt animals or accept free items to requests for help with building upgrades.” (EX1004, 70, 66; *see also id.*, 46, 54-55, 70-71, 149-150, 155-156, 206; EX1017, 1-2; EX1016, 70, 142.) FarmVille “takes advantage of Facebook’s social networking framework to encourage interaction with other players.” (EX1004, 9.)

67. In particular, Facebook users’ *interactions* with those FarmVille *content items* via *Facebook* would modify the FarmVille game environment. In a first example (*i.e.*, accepting gifts), a Facebook user can review a post and “[c]lick the Accept and Play button [corresponding to a *FarmVille hyperlink*] next to the gift [they] want to accept.” (EX1004, 67, Figure 3-4.) After acceptance, the user’s Gift Box is updated. (*Id.*, 67-68.)



(Excerpt from EX1004, Figure 3-4)

68. In a second example (*i.e.*, accepting items or bonuses), a Facebook user “will be able to *click the link* that appears in *their news feed* to accept the item or bonus or provide help with your request.” (EX1004, 71, Figure 8-5.) “Coins and experience points are added to [the] FarmVille account.” (*Id.*, 149.)



Figure 8-5: A bonus XP link as seen in a FarmVille news feed.

(EX1004, Figure 8-5)

69. In a third example (*i.e.*, adopting animals), “if you see a lost animal on your friend’s news feed, you can *click the link* to adopt it for your farm. (It will appear in your Gift Box.)” (EX1004, 46, Figure 3-9.) The adopted animal “will appear in your Gift Box.” (*Id.*, 46.)



Figure 3-9: A lost animal shared via a friend’s Facebook newsfeed.

(EX1004, Figure 3-9)

70. In a fourth example (*i.e.*, barn raising), “[t]en of your neighbors need to **click the link** in this news post over the next three days to complete your barn raising and expand your building’s storage[.]” (EX1004, 156.)

71. In a fifth example (*i.e.*, accepting an invitation to play FarmVille), a Facebook user can review a post on the **Facebook news feed** and “**click** the Accept and Play button [corresponding to a **FarmVille hyperlink**].” (EX1004, 56.) Then, the non-player Facebook user “[is] asked to install the game and set up their farm.” *Id.*

72. In a sixth example (*i.e.*, accepting neighbor requests), a Facebook user can “**click** the Accept and Play button [which corresponds a **FarmVille hyperlink**] on the **news feed** post you sent before he or she officially becomes your neighbor.” (EX1004, 55.)

73. In a seventh example (*i.e.*, joining co-op jobs), “neighbors can *click a link* that automatically appears in the *news feed* post to join your co-op job.” (EX1004, 206, Figure 12-5.)

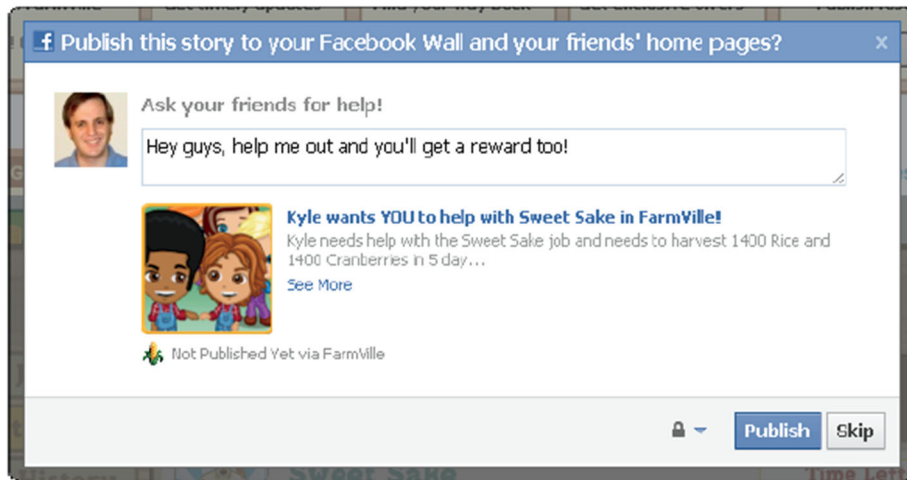


Figure 12-5: Posting a note about your co-op job to the Facebook news feed.

(EX1004, Figure 12-5)

74. The *FarmVille servers* receive the player’s interaction data (*e.g.*, clicks) and determine an influence to the game based on certain rules. For example, “some items shared via news feeds are available for only a limited time, or are available only to the first few neighbors who click the link” (EX1004, 71); “only the first person to click each news feed link can adopt the animal in question” (*id.*, 46); and “[t]en of your neighbors need to click the link in this news post over the next three days to complete your barn raising and expand your building’s storage” (*id.*, 156).

2. Summary of Zynga Patent

75. Zynga patent was filed on September 26, 2011, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §102(e). (EX1008, 1.) The Examiner never found, and Applicant never cited, the Zynga patent during prosecution.

76. Zynga patent describes operating online games and explicitly mentions “Farmville.” (EX1008, 14:53.) Zynga patent describes operating the game based on user actions such as “plant[ing] a crop” and “build[ing] a farm,” specifically, “[a] game event may be an outcome of an engagement, a provision of access, rights and/or benefits, or the obtaining of some assets (e.g., health, money, strength, inventory, land, etc.). A game engine determines the outcome of a game event according to a variety of factors, such as the game rules, a player character's in-game actions, player character state, game state, interactions of other player characters, and random calculations. Engagements can include simple tasks (e.g., plant a crop, clean a stove), complex tasks (e.g., build a farm or business, run a café), or other events.” (*Id.*, 12:6-15.)

77. Zynga patent explicitly discloses that *gaming servers* (e.g., FarmVille servers) “transmit” *content items* and “receive” *interaction data*. With reference to FIG. 3, “the *game networking system 320b* can communicate *data 347* (e.g., game state information, game system account information, page info, messages,

data requests, updates, etc.) with other networking systems. Such as the social networking system 320a (e.g., Facebook, Myspace, etc.).” (EX1008, 8:57-62, *see also* 3:1-4 (“Game networking system 120b can generate, store, receive, and **transmit** game-related data, such as, for example, game account data, game input, game state data, and game displays”).) Further, **game networking system 320b** receives **game inputs** (323) and **updates** (323, 343).

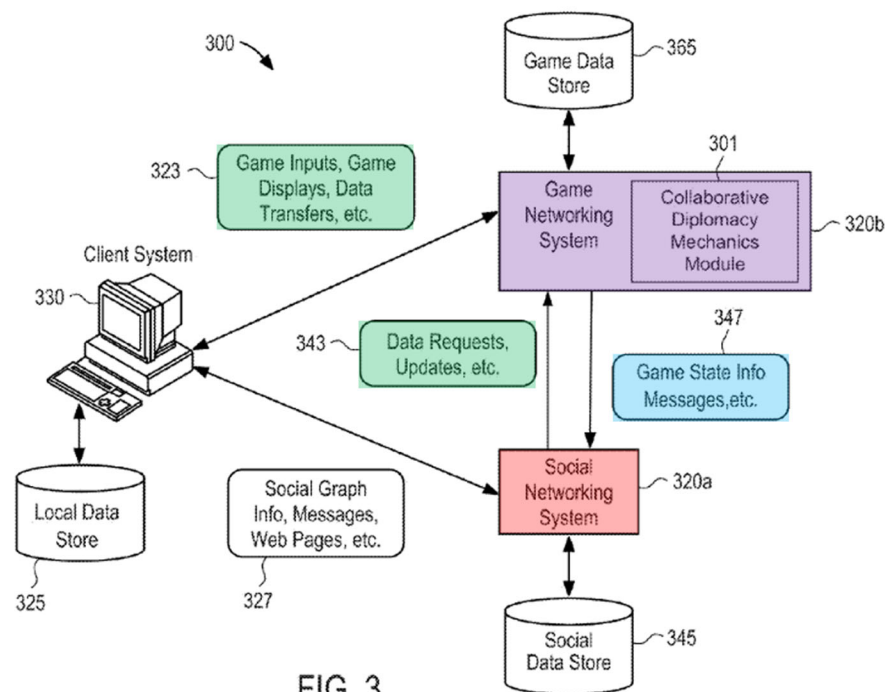


FIG. 3

(EX1008)

3. A POSITA would have been motivated to combine FarmVille and Zynga Patent.

78. At the time of the invention, it would have been obvious for a POSITA to combine FarmVille and Zynga patent. Both references disclose

mechanics of online video games created by Zynga. (EX1004, EX1008.) Zynga patent explicitly mentions “Farmville” and describes operating the game based on user actions such as “plant[ing] a crop” and “build[ing] a farm.” (EX1008, 14:53, 12:6-15.) Both relate to online video gaming environment with social-network integration, and more specifically to using social-network activities (*e.g.*, Facebook interactions) to affect gameplay. (EX1004, 53; EX1008, 8:60-61.) Thus, the references are analogous to the ’388 patent, are from the same field of endeavor, and address the same technical problem of using social-network interactions to drive or influence gameplay in an online video gaming environment. (EX1001, Abstract.)

79. A POSITA would have been motivated to combine FarmVille and Zynga patent. FarmVille is generally focused on FarmVille’s user-facing gameplay experience, while Zynga patent describes backend operations of online games, including FarmVille. To the extent that FarmVille does not explicitly disclose backend operations of the FarmVille servers to “transmit” *content items* and “receive” *interaction*, Zynga explicitly discloses both. In the FarmVille-Zynga combination, the FarmVille servers would *transmit user/game activity data* (*e.g.*, identifiers, action types, hyperlinks or URLs, text data, image data, metadata, etc.) to a social online service (*e.g.*, Facebook) to generate posts. The FarmVille

servers would also *receive player inputs* and *game updates* from the social online service (e.g., Facebook) and/or the client device to operate the game.

80. Zynga patent simply provides implementation details of how FarmVille servers operated, which a POSITA would have found obvious in the first place. The FarmVille-Zynga combination would yield the predictable result of having FarmVille servers operate as the central game engine, receiving data (e.g., player inputs) from the social online service (e.g., Facebook servers) and/or client systems to update game state, and transmitting content items to update display. By incorporating Zynga patent's backend implementation details in FarmVille, the combination would improve FarmVille by enabling server-side processing of user actions, transmission and receipt of game-related and social-network data, synchronization of game state, and preservation of a consistent gameplay experience across sessions and client devices. (See EX1008, 4:24-47, 10:33-56, 11:17-30.)

81. By incorporating the Zynga patent's backend implementation details into FarmVille, the combination would provide known benefits, including efficient and synchronized processing of player interaction, server-side maintenance and synchronization of game state, efficient coordination with the social online service, and preservation of a player's game state across gameplay sessions. These benefits would have prompted a POSITA to apply the Zynga patent's server-side

implementation teachings to FarmVille, because the combination merely applies Zynga patent's known backend server techniques to FarmVille.

82. The known benefits of Zynga patent would prompt the application of Zynga patent in the same field based on design incentives and market forces and would yield the predictable result of a scalable, networked game architecture for operating FarmVille through an online social service. Because both references involve Zynga online social games with social-network integration, a POSITA would have been motivated to use the known server implementations of Zynga patent to improve FarmVille in the same way.

83. Further, it would have been obvious to try combining the teachings of FarmVille and Zynga patent. There were only a finite number of identified and predictable solutions for operating an online game via an online social service, which would generally involve transmission of data to and from the gaming server. The combination is straightforward and readily achievable by a POSITA, as demonstrated by successful implementations in the field. Prior art such as Zynga patent successfully demonstrated that an online game server could process player inputs, synchronize game state, communicate with social-networking systems and client systems, and ensure that a consistent gaming experience would be provided across multiple gameplay sessions and platforms. Thus, there would have been a reasonable expectation of success in combining the references.

4. Claim 1

a. 1[PR]: “A computer-implemented method for providing a video gaming environment hosted on a server to one or more users, comprising:”²

84. FarmVille discloses a computer-implemented method for providing a *video gaming environment* hosted on a *server* to one or more users.

85. First, FarmVille discloses providing a *video gaming environment* to one or more users. “FarmVille is a Web-based farming simulation *game* produced by a gaming company called Zynga.” (EX1004, 7.) FarmVille includes “interactive and animated content” and thus is a video game. (*Id.*, 17.) “The basic concept of FarmVille is relatively simple. You manage your virtual farm by planting, growing, and harvesting virtual crops; tending livestock and trees; constructing buildings such as barns and chicken coops; and buying and selling goods made on the farm.” (*Id.*, 7, 11-12.) A screenshot of FarmVille’s *video gaming environment* is shown below.

² I show how each claim preamble is satisfied, but do not concede that any preamble is limiting for any ground in the proceeding.

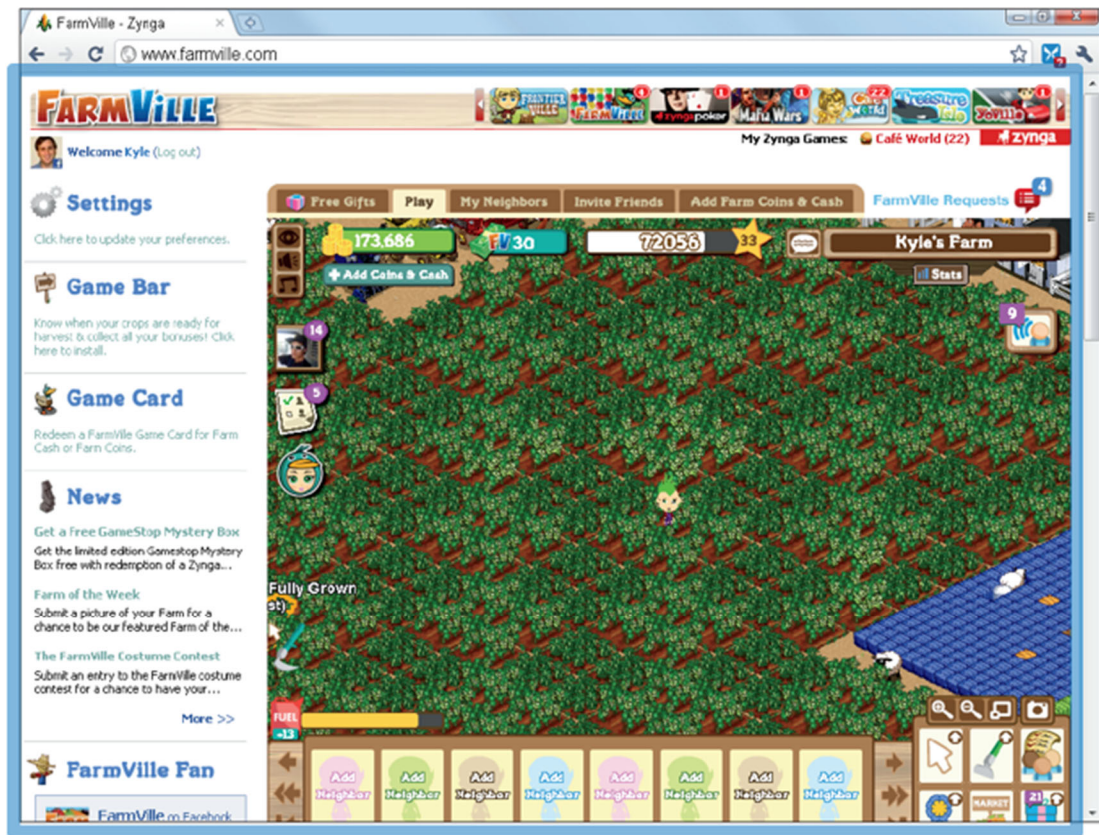


Figure 2-4: Playing FarmVille through FarmVille.com.

(EX1004, Figure 2-4)

86. FarmVille's *video gaming environment* can be accessed via a web browser. “[A] user can employ practically any computer with an Internet connection and a graphical Web browser to play FarmVille.” (EX1004, 16, 7.) Specifically, FarmVille can be accessed on Facebook, as shown below. (*Id.*, 24.)

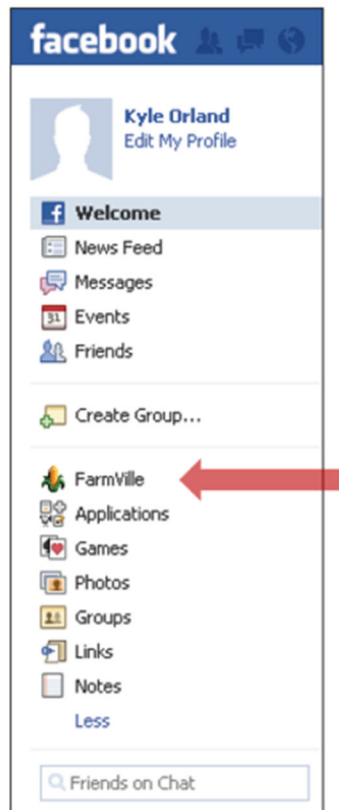


Figure 2-3: How the FarmVille bookmark appears on your Facebook sidebar.

(EX1004, Figure 2-3)

87. FarmVille can also be accessed by visiting FarmVille.com, as shown below. (EX1004, 24.)



Figure 2-4: Playing FarmVille through FarmVille.com.

(EX1004, Figure 2-4)

88. FarmVille’s *video gaming environment* can also be accessed via a mobile app. “In June 2010, Zynga launched the first mobile FarmVille app for the iPhone, iPod Touch, and iPad. The FarmVille app offers access to the same farm you maintain on Facebook.com or FarmVille.com[.]” (EX1004, 26.)

89. FarmVille’s *video gaming environment* is hosted on a *server*. “FarmVille is a Web-based game that you can play without inserting a disc or installing any programs to your hard drive. Your farm and the game program required to maintain it exist as part of a series of *online data centers* maintained by

FarmVille’s publisher, Zynga.” (EX1004, 16.) “This farm, and the *game* itself, aren’t actually stored permanently on your computer, but exist on ‘the cloud’ of *FarmVille servers* maintained by developer Zynga.” (*Id.*, 11.) “To play FarmVille, you need to make sure that your browser has JavaScript enabled. JavaScript lets your browser talk to the *FarmVille servers* and keep the farm that you see on your screen synced with the version stored in the *Internet ‘cloud’ of online servers.*” (*Id.*, 17; *see also id.* at 32 (“[c]licking Play while you’re already on your farm refreshes your page with the latest version from *Zynga’s servers*, but you need to refresh your page only if your connection falls out of sync for some reason”), 62 (“[s]ome items on the neighbor’s farm may appear as shadows for a while, only to pop suddenly into existence as the data is downloaded from *Zynga’s server*”), 225-229.)

90. FarmVille’s *video gaming environment* is provided to *one or more users*. “Surely there has to be some common factor that makes FarmVille appealing to so many *millions*. Maybe deep down inside, we all want to be farmers. Perhaps we’re intrigued by farming’s Zen-like simplicity. Or could it be some innate desire to own land and return to days of simple, natural living? Whatever the case, FarmVille is attracting people from all walks of life. The virtual farmers of FarmVille represent a broad range of backgrounds and professions. Business professionals, stay-at-home moms, doctors, the unemployed,

stockbrokers, technology gurus, college students, and retirees are living second lives as diligent Internet farmers.” (EX1004, 8.)

91. A POSITA would have understood that FarmVille discloses a “computer-implemented method” for providing the video gaming environment, because providing the FarmVille gaming environment involves a method implemented by computers such as “FarmVille servers” and user computers. (EX1004, 11, 15, 26.)

b. 1[A][1]: “providing access to the video gaming environment, by the server, to the one or more users via one or more user devices,”

92. FarmVille discloses providing access to the *video gaming environment*, by the *server*, to the one or more users via one or more user devices.

93. As discussed above, access to FarmVille’s *video gaming environment* is provided by the “*FarmVille servers*” to “millions” of users, and the access can be via the users’ web browsers and mobile apps. (*Supra* §IX.A.4.a.)

94. FarmVille further discloses one or more “user devices” that provide these web browsers and apps. For example, “[u]sing a *computer* with Internet access is the easiest way to play FarmVille, and practically any *computer* that can handle a graphical Web browser can handle the game.” (EX1004, 15.) Further, “[i]n June 2010, Zynga launched the first mobile FarmVille app for the *iPhone, iPod Touch, and iPad*. The FarmVille app offers access to the same farm you

maintain on Facebook.com or FarmVille.com[.]” (EX1004, 26, *see also id.*, 15, (“Don’t have a computer? That’s okay; you can now play FarmVille on *Apple iOS devices, including the iPhone.*”).)

c. 1[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

95. FarmVille discloses this element. A POSITA would have found it obvious that, to provide access to FarmVille, a user device would include a “user interface” to display FarmVille’s *video gaming environment*. “[A] user can employ practically any computer with an Internet connection and *a graphical Web browser* to play FarmVille.” (EX1004, 16.)

96. Exemplary user interfaces to display FarmVille’s *video gaming environment* are shown below. In FIG. 2-4, the FarmVille user interface is provided via a web browser through Farmville.com.



Figure 2-4: Playing FarmVille through FarmVille.com.

(EX1004, Figure 2-4)

97. In FIG. 3-1, the FarmVille user interface is provided via a web browser through apps.facebook.com. The user interface includes a “FarmVille play area” and a “top menu consist[ing] of six brown tabs and a FarmVille Requests button located above the FarmVille play area.” (EX1004, 29-30.) Other interface components include an “options menu,” a “fuel display,” a “neighbor bar,” “viewing options,” a “tools menu,” and “other stats.” (EX1004, 30, Figure 3-1.)

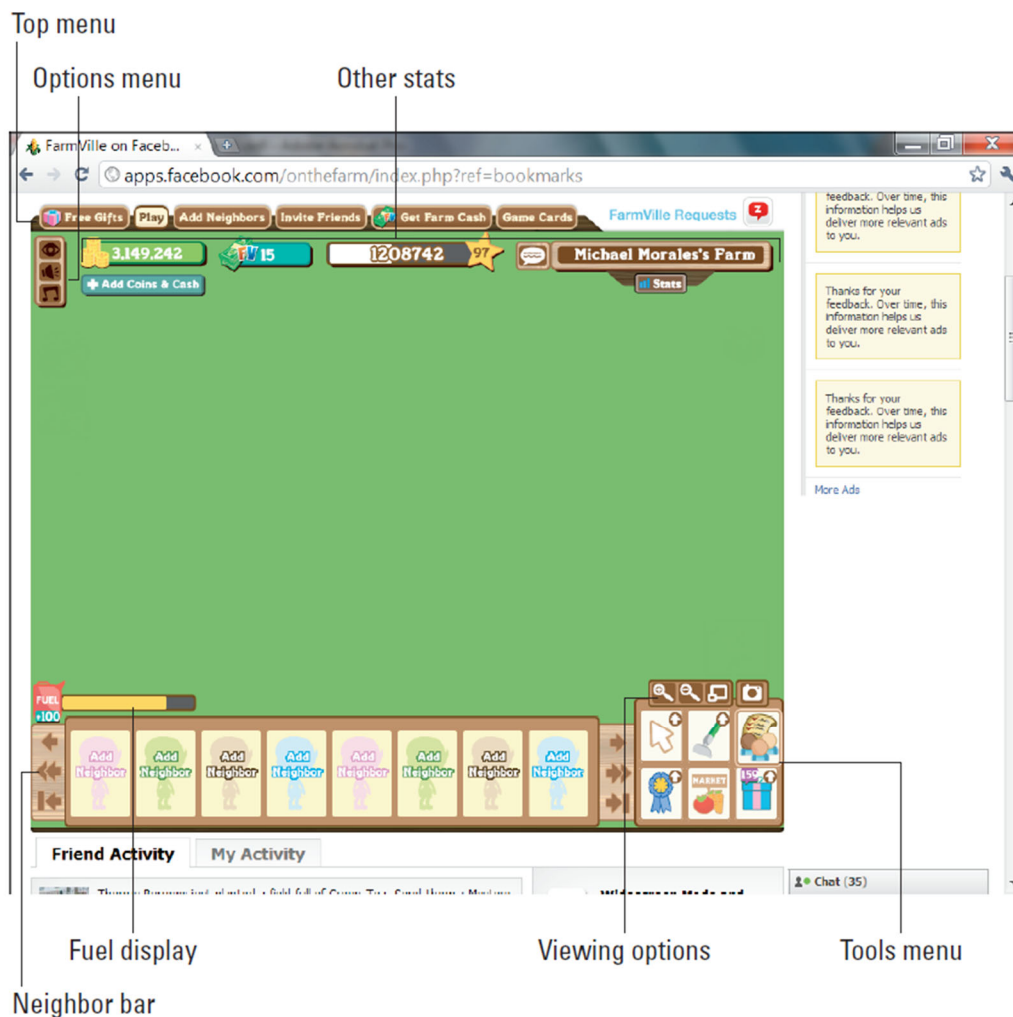


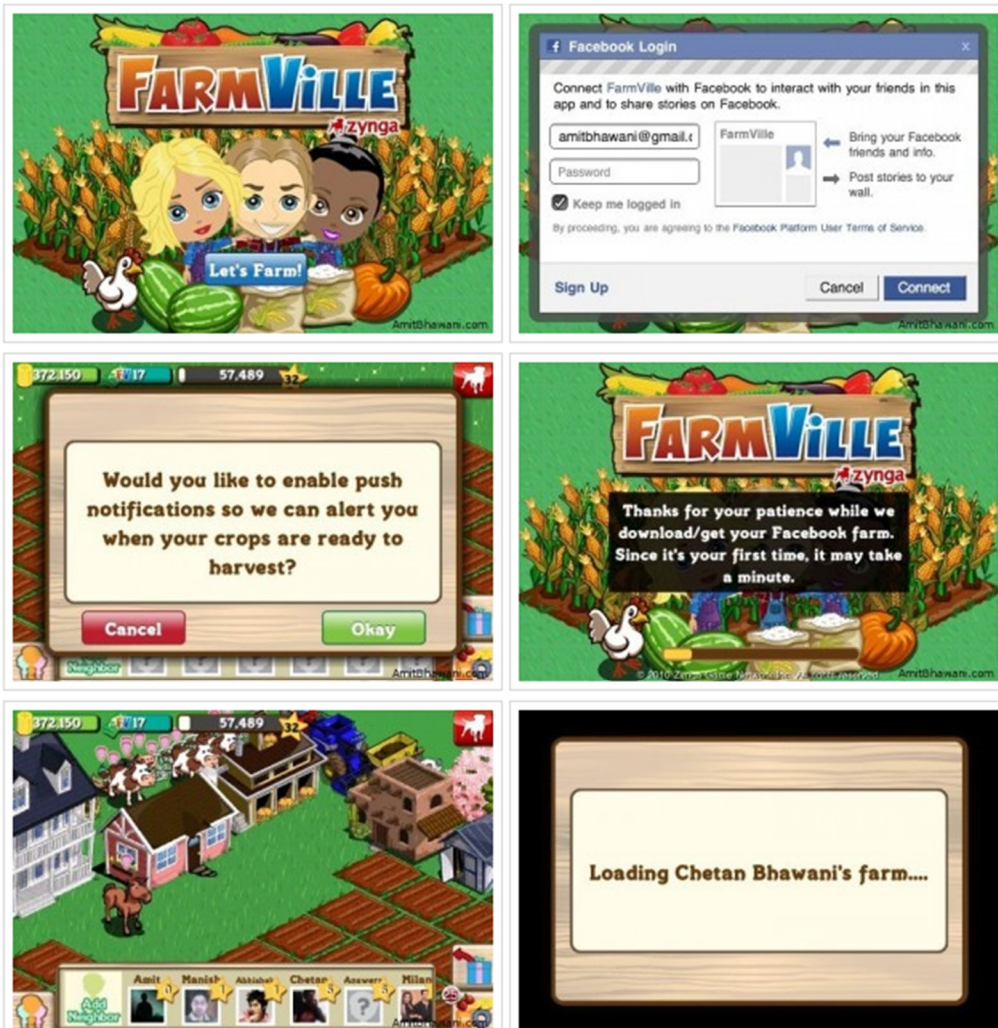
Figure 3-1: The major parts of the FarmVille user interface.

(EX1004, Figure 3-1)

98. Further, mobile devices also include user interfaces to display FarmVille’s *video gaming environment*. “In June 2010, Zynga launched the first mobile FarmVille app for the iPhone, iPod Touch, and iPad. The FarmVille app offers access to the same farm you maintain on Facebook.com or FarmVille.com[.]” (EX1004, 26.) By 2012, it was known that the FarmVille

game can be downloaded from the iPhone's App Store and played on an iPhone. For example, after downloading, "it will be asking you to login with your Facebook account to get access to your farm[,] " "[n]ext you would be asked if you would like to get Push Notifications when your crops grow[,] " and then the game will load and provide you with access to the farm. (EX1012, 1-2, Photos.)

Game Photos :



(EX1012)

d. 1[B]: “transmitting, by the server, a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

99. The FarmVille-Zynga combination discloses this element.

100. First, FarmVille discloses a *social online service*. FarmVille “takes advantage of *Facebook’s social networking framework* to encourage interaction with other players. Socializing with other players by visiting their farms, sharing gifts, and participating in cooperative jobs is one of the keys to getting the most out of the game.” (EX1004, 9, 15 (“[a]fter your computer is all set up for FarmVille, you need to get connected to Facebook before you start farming.”), 12 (“[a]s a social game, FarmVille is partially focused on helping fellow players, known in the game as neighbors.”).) “Creat[e] a Facebook Account So That You Can Play the Game - If you’re not already one of the 500 million (and growing) people with a Facebook account, you need to change that fact before jumping into FarmVille.” (*Id.*, 19.) A POSITA would have found it obvious that Facebook servers provide the *social online service*.

101. Second, FarmVille discloses or suggests *transmitting*, by the *server*, a *content item* to the *social online service*. As discussed herein, FarmVille causes Facebook to display numerous FarmVille-related content. This means (and a POSITA would find it obvious) that *FarmVille servers* would transmit content items such as *user/game activity data* to *Facebook* (e.g., Facebook servers) for

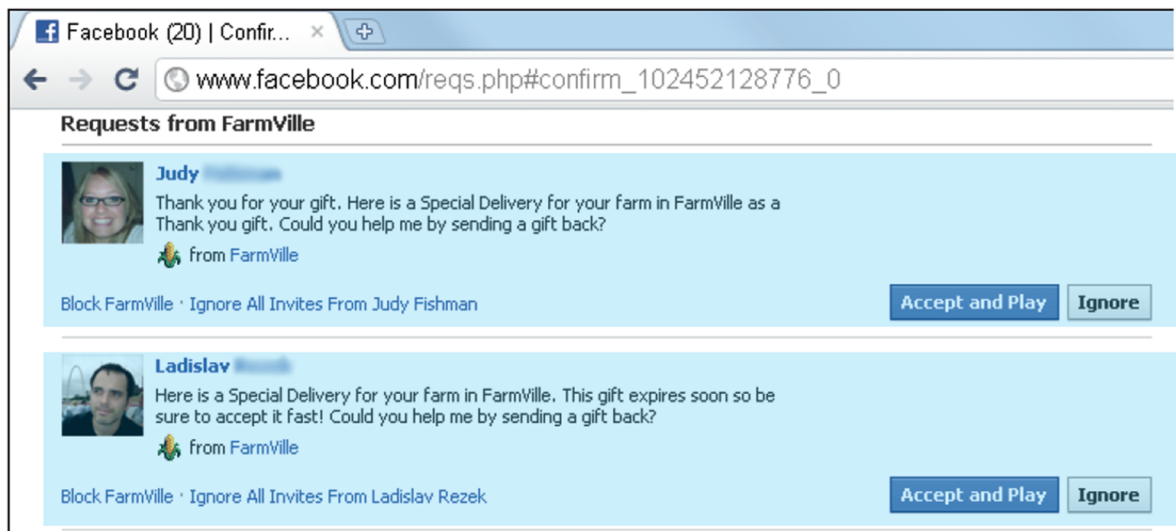
display. In other words, it would have been obvious the *FarmVille servers* send *user/game activity data* (i.e., content item) that *Facebook* then uses to generate and/or display the corresponding Facebook posts. The *user/game activity data* includes, for example, identifiers, action types, hyperlinks or URLs, text data, image data, metadata, etc. needed by Facebook to generate and display the Facebook post or elements thereof. The Facebook post in turn contains the *user/game activity data*.

102. “Developer Addendum No. 2 By and Between Facebook, Inc. and Zynga Inc.” dated December 26, 2010, confirms that Zynga transmits *user/game activity data* to Facebook, which then generated posts based on the data. Facebook provides “*a set of APIs and services* that enable others, including application developers and website operators, to retrieve data from Facebook or *provide data to [Facebook]*.” (EX1013, 35.) The Addendum states that Zynga owns “*Game Data and Zynga User IDs* associated with each Zynga User that a Facebook User provides directly to Zynga. . . .” (*Id.*, 9) The Addendum further states that Zynga “*send[s] Stories or posting game scores to a game center* hosted on a third party Mobile Platform API (provided that such Stories link back to the Zynga Mobile Game that was the subject of the Story).” (*Id.*, 6) While this statement refers to “third party” platforms, it would have been obvious that, for FarmVille stories

displayed on Facebook, Zynga would similarly send such stories to Facebook for display.

103. The *user/game activity data* includes links. “Any *Stories* generated by Zynga in connection with a Covered Zynga Game that are displayed in a FB communication channel may contain *links* but any such link must be a local link that links Zynga Users to the instantiation of the Covered Zynga Game on the site on which such Story is read by friends of such Zynga User, irrespective of where such Story originated (e.g. Stories in a newsfeed on FB must link to the Covered Zynga Game on the Facebook Site and Stories in a newsfeed on a Zynga Property must link to the Covered Zynga Game on the Zynga Property). Any Stories generated by Zynga within a Covered Zynga Game (e.g. on the canvas page of a Covered Zynga Game) may contain links that link Zynga Users off of the Facebook Site; provided, however, that such links must comply with subsections (a)-(c) in Section 7 (Promotions).” (EX1013, 10.)

104. Below are some examples of Facebook posts containing the *content items* (e.g., hyperlinks for accepting gifts and bonuses, some or all text in the posts, user IDs) transmitted by the *FarmVille servers* to *Facebook*.



(Excerpt from EX1004, Figure 3-4)



Figure 8-5: A bonus XP link as seen in a FarmVille news feed.

(EX1004, Figure 8-5)



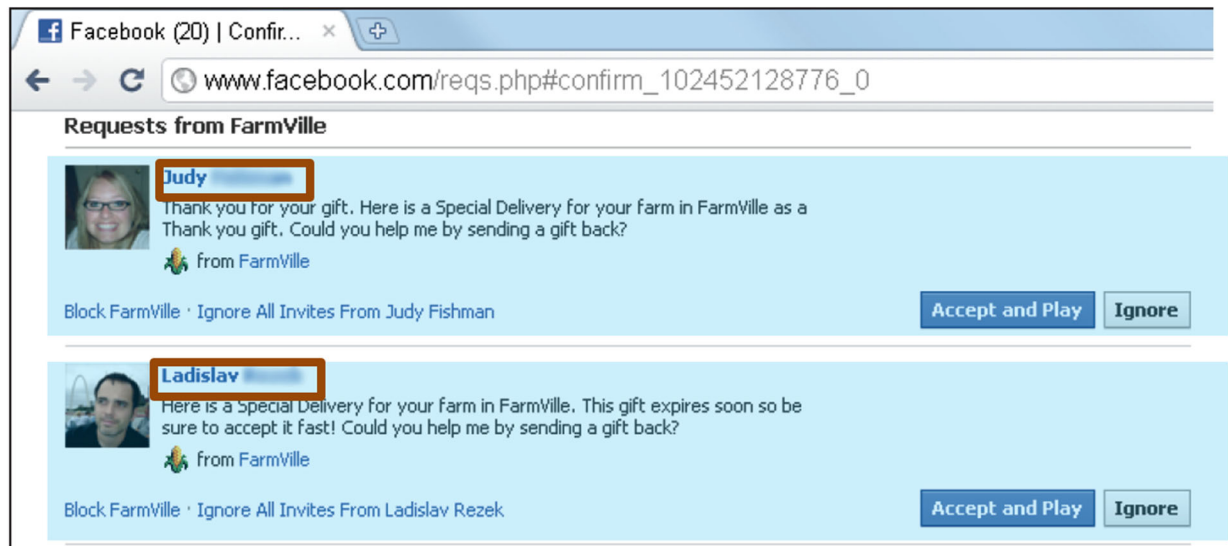
Figure 3-9: A lost animal shared via a friend's Facebook newsfeed.

(EX1004, Figure 3-9)

105. FarmVille discloses that each of the *content items* represents an *event* associated with a *first user* in the video gaming environment. “These news posts [comprising *content items* from FarmVille servers] can involve everything from *opportunities to adopt animals or accept free items to requests for help with building upgrades.*” (EX1004, 70.) These events (*e.g.*, animal adoption, gifts, items, building projects) are FarmVille events and are associated with FarmVille *players* (*e.g.*, a *FarmVille player* who has requested for help or gifted items).

106. Below I list several specific examples of FarmVille *content items* representing an *event* associated with a *first user*. First, a FarmVille *content item* can represent an event of *gifting gifts* associated with a *gift giver*. The figure below (excerpt from Figure 3-4) shows example Facebook posts. Each post contains FarmVille *content items* (*e.g.*, hyperlink for “Accept and Play,” text data,

user ID) representing a FarmVille *event* (i.e., gifting) associated with a *FarmVille* *player*.



(Excerpt from EX1004, Figure 3-4)

107. FarmVille explains how a gift can be initiated. Figure 4-10 shows a FarmVille Gift request addressed to multiple recipients, depicting that *Michael Morales* is sending a Dutch Rabbit “for your farm in FarmVille.” (EX1004, 71, Figure 4-10.) After the player clicks on the Send button, “[a] news post detailing your gift shows up on your neighbor’s *Facebook* news feed.” (EX1004, 66, *see also id.*, Figure 4-8.) It would have been obvious to a POSITA that, after the player clicks the Send button, the *FarmVille servers* would transmit a *content item* (e.g., hyperlinks, text data, user ID) representing the gifting event to *Facebook* (e.g., Facebook servers) to generate the Facebook post comprising the content

item, thus disclosing “transmitting, by the *server*, a *content item* to a *social online service*.”



Figure 4-10: A Facebook News feed publishing box.

(EX1004, Figure 4-10)

108. As a second example, a FarmVille *content item* can represent an event of *gifting collectibles and bonuses* associated with a *gift giver*. For example, Figure 8-5 shows a Facebook post on the news feed. The post contains the FarmVille *content item* (e.g., hyperlinks, text data, user ID) representing a FarmVille *event* (i.e., saying thank you, chicken coop harvesting, and bonus sharing) associated with *Judy*. (EX1004, 149-150.) As shown by the original annotations, the user can click the links to receive the bonus. *See also id.*, 70-71

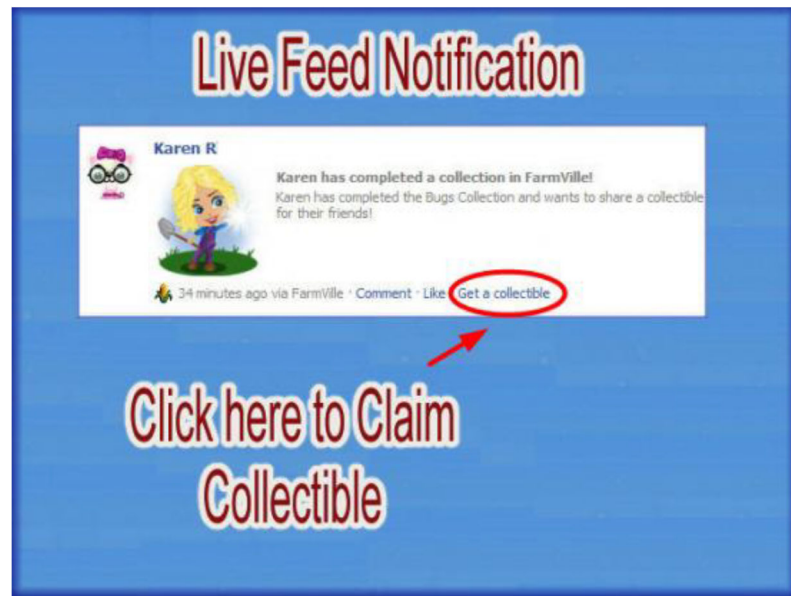
(“[t]he link will be shared on your news feed. . . . Your neighbors will be able to click the link that appears in their news feed to accept the item or bonus or provide help with your request.”).



Figure 8-5: A bonus XP link as seen in a FarmVille news feed.

(EX1004, Figure 8-5)

109. Further, the post below contains FarmVille *content item* (e.g., hyperlink, text data, user ID) representing a FarmVille *event* (i.e., completing a collection and sharing a collectible) associated with *Karen*. (EX1016, 142.)



(EX1016)

110. As a third example, a FarmVille *content item* can represent an event of *animal adoption* associated with a *player*. For example, Figure 3-9 shows a Facebook post on the news feed. The Facebook post contains FarmVille *content item* representing a FarmVille *event* (*i.e.*, animal found for adoption) associated with *Angela*. (EX1004, 149-150.) “[N]eighbors can then click the link in that *message* to adopt the animal and place it on their farm.” (EX1004, 46.)



Figure 3-9: A lost animal shared via a friend’s Facebook newsfeed.

(EX1004, Figure 3-9)

111. FarmVille explains how the Facebook post is initiated. “As *you* play FarmVille, every so often a pop-up notification appears, asking whether you want to find a home for a lost, lonely animal. You can’t keep the animal for yourself, but if you click Share, you can post a message about the lost animal to your Facebook news feed.” (EX1004, 46.) It would have been obvious to a POSITA that, after the player clicks the Share button, the *FarmVille servers* would transmit a *content item* (e.g., hyperlinks, text data) representing the adoption event to *Facebook* (e.g., Facebook servers) to generate the Facebook post containing the content item, thus disclosing “transmitting, by the *server*, a *content item* to a *social online service*.”

112. As a fourth example, a FarmVille *content item* can represent an event of *barn-raising* associated with a *player*. For example, the figure below shows a Facebook post on the news feed. The Facebook post contains FarmVille *content*

item representing a FarmVille *event* (i.e., *Calin* is hosting a barn raising)
associated with *Calin*.



(EX1017, 1)

113. Specifically, FarmVille explains that players can “expand the storage capacity of storage buildings,” including “barns, tool sheds, chicken coops, dairy farms, and nursery barns,” through barn raising. (EX1004, 156, 155.) First, the player can “[c]lick the building you want to expand and click Expand Storage in the pop-up menu that appears,” and then “[c]lick the Expand button under the building you want to try to expand.” (*Id.*, 155-156.) “A pop-up notification asks you to spread the word for a ‘good ol’ fashioned barn raising!’” and after “[c]lick[ing] Share, [a] *Facebook news feed* post dialog box appears.” (*Id.*) “Typ[ing] an optional message and then click[ing] Publish . . . Your barn-raising request is now posted on your *news feed*.” (*Id.*) It would have been obvious to a POSITA that, after the player clicks the Share button, the *FarmVille servers* would transmit a *content item* (e.g., hyperlinks, text data, optional message, user ID)

representing the barn raising event to **Facebook** (e.g., Facebook servers) to generate the Facebook post containing the content item, thus disclosing “transmitting, by the **server**, a **content item** to a **social online service**.”

114. As a fifth example, a FarmVille **content item** can represent an event of *inviting a non-player to play FarmVille* associated with a **player**. FarmVille explains that **the user** can “invite unconverted Facebook friends to sign up for FarmVille” if **the user** “[c]lick the Invite Friends tab above the FarmVille play area,” “[c]lick the name or picture of up to 50 friends [they] want to invite to play Farmville,” “[c]lick the blue Send FarmVille Request button,” and “[c]lick the blue send button.” (EX1004, 55-56.) Further, “[y]ou can click the Add Personal Message link on this window to type an optional note to go along with your request.” *Id.* “A post appears on your friend’s **Facebook news feed**, asking him or her to join you in playing FarmVille. Any friends who click the Accept and Play button are asked to install the game and set up their farm.” (EX1004, 56.) It would have been obvious to a POSITA that, after the player clicks the send button to send the request, the **FarmVille servers** would transmit a **content item** (e.g., hyperlinks, text data, user ID, optional note) representing the gameplay invitation to **Facebook** (e.g., Facebook servers) to generate the Facebook post containing the content item, thus disclosing “transmitting, by the **server**, a **content item** to a **social online service**.”



Figure 4-2: The Invite Friends page.

(EX1004, Figure 4-2)

115. As a sixth example, a FarmVille *content item* can represent an event of *neighbor request* associated with a *player*. FarmVille explains that *the user* can “[c]lick the My Neighbors tab,” “click the blue Add as Neighbor button next to the friend to whom [they] want to send a neighbor request,” and then click Send. (EX1004, 54-55.) Further, “[y]ou can click the Add Personal Message link on [the confirmation] window to type an optional note to go along with your request.” (*Id.*, 55) “A neighbor request will be posted to your friend’s *Facebook news feed*.” (*Id.*, 54-55.) It would have been obvious to a POSITA that, after the player sends the request, the *FarmVille servers* would transmit a *content item* (e.g.,

hyperlinks, text data, user ID, optional note) representing the neighbor request event to **Facebook** (e.g., Facebook servers) to generate the Facebook post containing the content item, thus disclosing “transmitting, by the *server*, a *content item* to a *social online service*.”



Figure 4-1: The My Neighbors page.

(EX1004, Figure 4-1)

116. As a seventh example, a FarmVille *content item* can represent an event of *co-op job recruiting* associated with a *player*. FarmVille explains that *a user* can “[c]lick the Recruit Friends button in the Co-op Jobs menu,” and “[c]lick the Share button in the [pop-up] notification box” to access the Facebook message

posting dialog box as shown in Figure 12-5. (EX1004, 206.) FarmVille states that *the user* may “[e]nter a message and then click Publish to post the notice on [the user’s] *Facebook wall*.” *Id.* It would have been obvious to a POSITA that, after the player publishes the request, the *FarmVille servers* would transmit a *content item* (e.g., hyperlinks, text data, optional note) representing the recruiting request event and the note to *Facebook* (e.g., Facebook servers) to generate the Facebook post containing the content item, thus disclosing “transmitting, by the *server*, a *content item* to a *social online service*.”

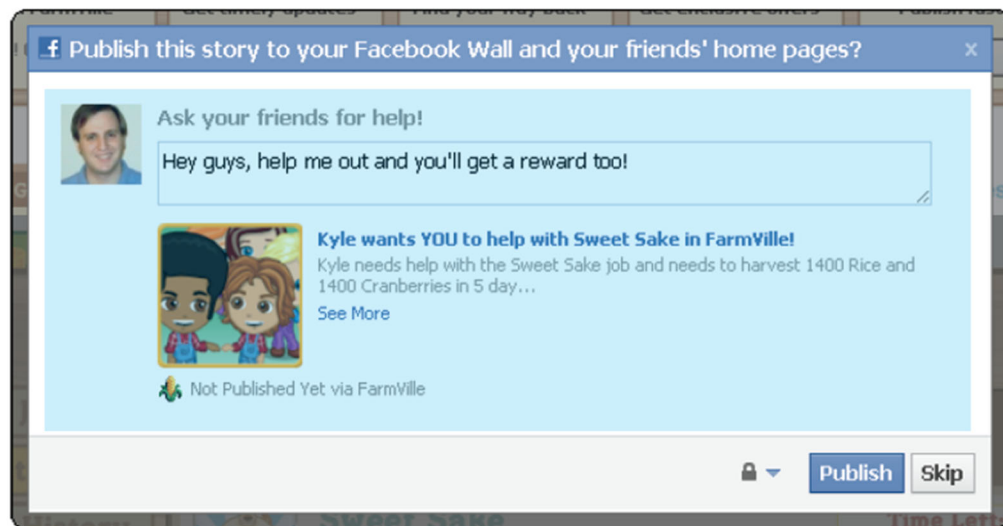


Figure 12-5: Posting a note about your co-op job to the Facebook news feed.

(EX1004, Figure 12-5)

117. To the extent that FarmVille does not explicitly disclose that FarmVille servers “transmit” content items to a social online service, Zynga patent

discloses this. Zynga patent is assigned to Zynga Inc., the developer of the FarmVille game. (EX1008, 1.) Zynga patent describes operations of online social video games such as “FarmVille and Café World[.]” (EX1008, 14:53.) Like FarmVille, Zynga patent discloses *servers* that operate an online game, such as “game networking system 320 [which can] . . . have one or more *servers*.” (EX1008, 8:39-40.)

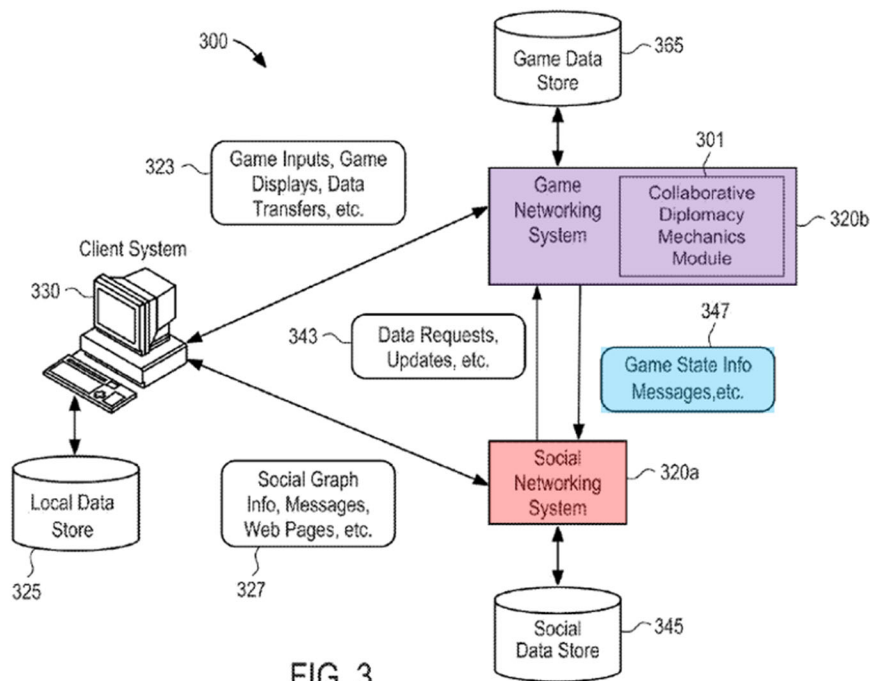


FIG. 3

(EX1008)

118. Zynga patent explicitly discloses that its *servers* “transmit” *content items* to a *social online service*. As shown in FIG. 3, the Zynga patent states that “the *game networking system 320b* can *communicate* data 347 (e.g., *game state information, game system account information, page info, messages, data*

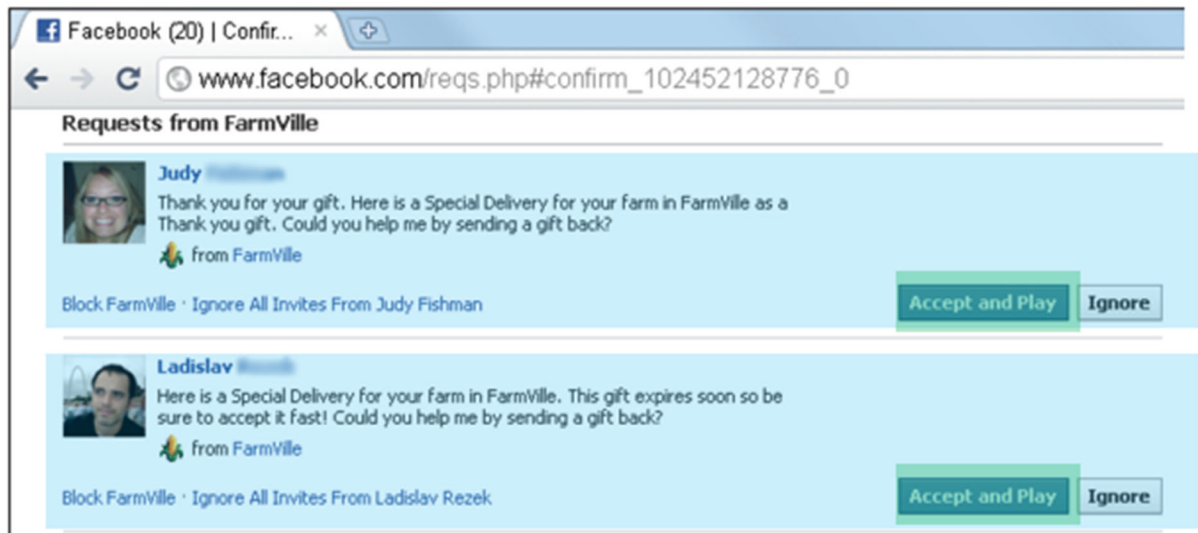
requests, updates, etc.) with other networking systems such as the *social networking system 320a (e.g., Facebook, Myspace, etc.)*.” (EX1008, 8:57-62, *see also* 3:1-4 (“Game networking system 120b can generate, store, receive, and *transmit* game-related data, such as, for example, game account data, game input, game state data, and game displays”).) It would have been obvious to combine FarmVille and the Zynga patent. (*Supra* §IX.A.3.)

e. 1[C]: “receiving, by the server, an interaction via the social online service of a second user with the content item on the social online service;”

119. The FarmVille-Zynga combination discloses this element.

120. First, FarmVille discloses an *interaction* via the *social online service* of a *second user* with the *content item* on the social online service. As discussed below, FarmVille servers receive *interaction data indicative of user input and/or intent* (*i.e.*, “*interaction*”), such as accepting gifts, adopting an animal, etc.

121. In the first example (*i.e.*, accepting gifts), to accept a gift, a *user* can “[c]lick the Accept and Play button [which corresponds to the *hyperlink* from FarmVille servers] next to the gift [they] want to accept.” (EX1004, 67, Figure 3-4.) As shown, the *click* is via *Facebook*.



(Excerpt from EX1004, Figure 3-4)

122. After acceptance, “the Gift Acceptance confirmation page appears,” confirming that the gift has been accepted. (EX1004, 67.) The user can later “[c]lick the Gift Box icon in the Tools menu” so that “[t]he Gift Box menu appears, which contains all the gifts you accepted[.]” (*Id.*, 67-68.) FarmVille further explains that accepted gifts can be used in the game: “If *you* click the Use button, you return to your farm to place the item (if it’s a tangible item). Tangible items such as animals and decorations take up physical space on your farm. If it’s an intangible item such as a shovel, fuel, or Farm Cash, the item is added to your inventory automatically.” (*Id.*, 68.)

123. In the second example (*i.e.*, accepting items or bonuses), an *interaction* via the *social online service* with the *content item* is a *click* to accept

for items or bonuses or provide help by the *second user*. “*Your neighbors* will be able to *click the link* that appears in *their news feed* to accept the item or bonus or provide help with your request.” (EX1004, 71, Figure 8-5.) For example, for coins and experience points, players can “[c]lick the Get a Bonus from Them *link* in the *news feed* post” for the “[c]oins and experience points [to be] added to your FarmVille account.” (EX1004, 149.) FarmVille also notes that “some items shared via *news feeds* are available for only a limited time, or are available only to the *first few neighbors* who *click the link*.” (EX1004, 71.) For example, “bonus links expire 24 hours after they’re posted, so be sure to scour your news feed frequently.” (EX1004, 149.)



Figure 8-5: A bonus XP link as seen in a FarmVille news feed.

(EX1004, Figure 8-5)

124. As the third example (*i.e.*, adopting animals), an *interaction* via the *social online service* with the *content item* is a *click* to adopt an animal by the *second user*. “[I]f *you* see a lost animal on *your friend’s news feed*, *you* can *click the link* to adopt it for your farm. (It will appear in your Gift Box.)” (EX1004, 46, Figure 3-9.) FarmVille further states that “only the first person to click each news feed link can adopt the animal in question.” (EX1004, 46.)



Figure 3-9: A lost animal shared via a friend’s Facebook newsfeed.

(EX1004, Figure 3-9)

125. As the fourth example (*i.e.*, barn raising), an *interaction* via the *social online service* with the *content item* is a *click* to help raise a barn by the *second user*. After a user initiates a barn raising, the “*barn-raising request* is now posted on [their] *news feed*.” (EX1004, 156.) “Ten of *your neighbors* need to *click the link* in this news post over the next three days to complete your barn raising and expand your building’s storage[.]” (*Id.*) As another example, after purchasing the

barn foundation, the user is “prompted to send out a message via the **Facebook live feed**” and “need[s] 10 of **your friends** to **click on a link** to help you over 3 days.”

(EX1016, 70.) “If your friends click on the link they will receive 100 coins for helping you.” (*Id.*)



(EX1017)

126. In the fifth example (*i.e.*, accepting an invitation to play FarmVille), an interaction via the **social online service** with the **content item** is a **click** to accept the FarmVille gameplay invitation by the **second user**. “A post appears on your friend’s Facebook **news feed**, asking him or her to join you in playing FarmVille. Any friends who **click** the Accept and Play button [which corresponds a **hyperlink** provided by the FarmVille servers] are asked to install the game and set up their farm.” (EX1004, 56.)

127. In the sixth example (*i.e.*, accepting neighbor request), an **interaction** via the **social online service** with the **content item** is a **click** to accept a neighbor

request by the *second user*. For neighbor requests, “[y]our Facebook friend has to *click* the Accept and Play button [which corresponds a *hyperlink* provided by the FarmVille servers] on the *news feed* post you sent before he or she officially becomes your neighbor.” (EX1004, 55.) FarmVille further explains that “[f]riends who accept then appear in the form of a profile picture and username in the Neighbor bar at the bottom of your FarmVille game.” *Id.*

128. In the seventh example (*i.e.*, joining a co-op job), an *interaction* via the *social online service* with the *content item* is a *click* to join a co-op job by the *second user*. For example, “[y]our neighbors can *click a link* that automatically appears in the *news feed* post to join your co-op job.” (EX1004, 206.) The *neighbor*’s *click* is an *interaction* by a *second user* with the *co-op-job content item* on *Facebook*.

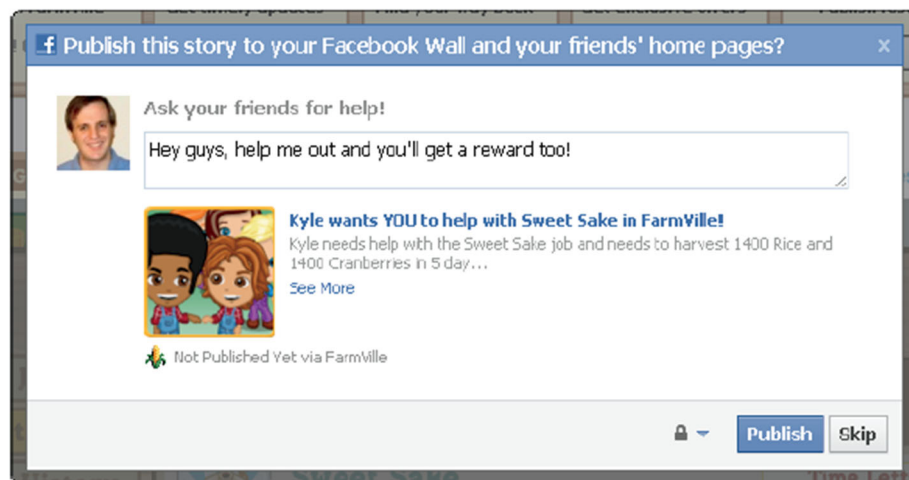


Figure 12-5: Posting a note about your co-op job to the Facebook news feed.

(EX1004, Figure 12-5)

129. In all of these examples, the Facebook user *interacts* with one or more *content items* (e.g., elements on the social-network post including displayed information and hyperlink) on Facebook.

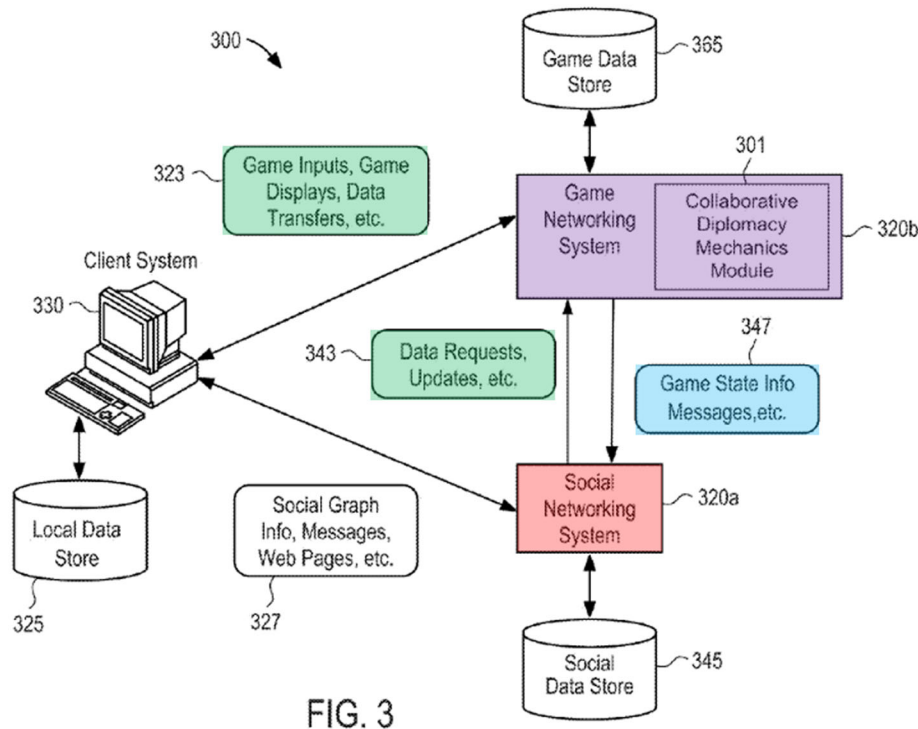
130. FarmVille discloses or at least suggests (and a POSITA would find it obvious) receiving, by the *FarmVille servers*, *interaction data indicative of player input and/or intent* (i.e., “*interaction*”). “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘*the cloud*’ of *FarmVille servers* maintained by developer Zynga.” (*Supra* §IX.A.4.a; EX1004, 11.) Thus, in each of the examples above, a POSITA would have found it obvious that the *interaction*—e.g., a click (e.g., to accept a gift, accept an item or bonus, adopt an animal, help raise a barn, accept an invitation to play FarmVille, accept a neighbor request, or join a co-op job) or data indicative of or representing such a user input or intent—would be received by the *FarmVille servers*. The *FarmVille servers* would process the *interaction* to update the game state and/or display of the gameplay. For example, the servers would update server-side databases, inventories, and/or game-state information relating to gifts, items, bonuses, adopted animals, player lists, neighbor lists, barn-raising progress, and co-op job participation and status. FarmVille confirms such server-side updating. (*See, e.g.*, EX1004, 67-68 (“[t]he Gift Box menu appears, which contains all the gifts you

accepted”), 55 (“[f]riends who accept then appear in the form of a profile picture and username in the Neighbor bar at the bottom of your FarmVille game”).)

131. Further, a POSITA would have understood that the received *interaction* would include *metadata* associated with the interaction, such as the identity of the user performing the click and the timing of the interaction, so that the servers could determine whether the interaction satisfied applicable rules. FarmVille explains that certain interactions are subject to timing or eligibility restrictions. For example, “some items shared via news feeds are available for only a limited time, or are available only to the first few neighbors who click the link.” (EX1004, 71.) Likewise, “only the first person to click each news feed link can adopt the animal in question.” (*Id.*, 46.) Similarly, for barn raising, “[t]en of your neighbors need to click the link in this news post over the next three days.” (*Id.*, 156.) A POSITA therefore would have understood that the FarmVille servers receive metadata associated with the clicks—including user identity and timestamp information for example—to determine whether the interaction was made by a qualifying player within a qualifying time period and, in turn, how the game state should be updated.

132. To the extent that FarmVille does not explicitly disclose that *FarmVille servers* “receive” *interaction*, Zynga patent discloses this. As shown in FIG. 3, *game networking system 320b* receives *game inputs* (323) and *updates*

(323, 343). The *interaction* can be from the client system: “[t]he client system 330 can receive and transmit *data 323* to and from the *game networking system 320b*. This data can include, for example, webpages, messages, *game inputs*, game displays, HTTP packets, data requests, transaction information, *updates*, and other suitable data.” (EX1008, 8:52-56; *see also id.*, 3:1-4.) The *interaction* can also be from the social networking system as shown by data 343 in FIG. 3. (*See also id.*, 8:62-67, 4:27-30.)



(EX1008)

133. Further, “each time player 101 provides an *input to the game* through the client system 130 (such as, for example, by *typing on the keyboard or clicking the mouse* of client system 130), the client components of the game may *transmit*

the player's input to *game networking system 120b*.” (EX1008, 4:42-47.) And “[a]s the game progresses with each player, multiple players may provide different *inputs* to the online game at their respective client systems 330, and multiple client systems 330 may transmit multiple player inputs and/or game events to *game networking system 320b* for further processing. In addition, multiple client systems 330 may transmit other types of *application data* to game networking system 320b.” (*Id.*, 10:3-10.)

134. Zynga patent further discloses that the “*remote game server*, such as a game networking system” “provides backend support for the client components and may be responsible for maintaining application data of the game, processing the *inputs* from the player, updating and/or synchronizing the game state based on the game logic and each input from the player, and transmitting instructions to client system 130.” (EX1008, 4:35-41.) Further, “[a]pplication event data of a game is any data relevant to the game (e.g., *player inputs*) . . . When an update to an application datum occurs at the client system 330, either caused by an *action of a game player* or by the game logic itself, the client system 330 may need to inform the game networking system 320b of the update. For example, if the game is a combat game with combat units and weapons mechanic (such as Zynga's Empires and Allies), an event can correspond to a player clicking on a barrack to build combat units. In such an instance, the application event data may identify an

event or action (e.g., building barracks) and an object in the game to which the event or action applies. For illustration purposes and not by way of limitation, the system 300 is discussed in reference to updating a multi-player online game hosted on a network-addressable system (such as, for example, the social networking system 320a or the game networking system 320b), where an instance of the online game is executed remotely on the client system 330, which then transmits *application event data* to the hosting system such that the *remote game server* synchronizes game state associated with the instance executed by the client system 330.” (*Id.*, 10:33-56; *see also id.*, 10:57-11:51.) It would have been obvious to combine FarmVille and the Zynga patent. (*Supra* §IX.A.3.)

f. 1[D]: “determining, by the server, an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

135. The FarmVille-Zynga combination discloses or renders obvious determining, by the *server*, an *influence* to the *video gaming environment* based on the *interaction* via the social online service of the second user with the content item on the social online service.

136. In the first example (*i.e.*, accepting gifts), a player can “click the Accept and Play button next to the gift [they] want to accept” and “[a] Gift Acceptance confirmation page appears, as shown in Figure 4-9.” (EX1004, 67-68.) Further, “[t]he Gift Box menu appears, which contains all the gifts [the

player] accepted.” *Id.* In other words, based on the second user’s *interaction* (indicating a user input/intent to accept a gift) with the content item, the *FarmVille servers* determine the *influence* of updating server-side databases (e.g., inventories) and updating the game display.



Figure 4-9: The Gift Acceptance confirmation page.

(EX1004, Figure 4-9)

137. In the second example (*i.e.*, accepting items or bonuses), “[y]our neighbors will be able to *click* the link that appears in their news feed to accept the item or bonus. . . .” (EX1004, 71.) “Note that some items shared via news feeds are available for only a limited time, or are available only to the first few neighbors who click the link. Be sure to *click* news feed links shared by your neighbors as soon as possible to take full advantage of these opportunities.” (*Id.*, *see also id.*, 190.) For example, for coins and experience points, players can “*/click* the Get a

Bonus from Them link in the news feed post” for the “[c]oins and experience points [to be] added to your FarmVille account.” (EX1004, 149.) However, “[the] bonus links expire 24 hours after they’re posted, so be sure to scour your news feed frequently.” *Id.* In other words, based on the second user’s *interaction* with the content item (indicating a user input/intent to accept) and the eligibility requirements, the *FarmVille servers* determine the *influence* of whether and how to update server-side databases (*e.g.*, inventories of items or bonuses) and update the game display.

138. In the third example (*i.e.*, adopting animals), FarmVille discloses that “if you see a lost animal on your friend’s news feed, you can *click* the link to adopt it for your farm. (It will appear in your Gift Box.) Note that only the first person to *click* each news feed link can adopt the animal in question, so keep your eyes peeled and your clicking finger ready. Also note that some types of animals are available exclusively through adoption.” (EX1004, 46.) In other words, based on the second user’s *interaction* with the content item (indicating a user input/intent to adopt) and the eligibility requirements, the *FarmVille servers* determine the *influence* of whether to update server-side databases (*e.g.*, inventories of adopted animals) and update the game display (*e.g.*, Farm GUI, Gift Box GUI).

139. In the fourth example (*i.e.*, barn raising), FarmVille states that “[t]en of your neighbors need to *click* the link in this news post over the next three days

to complete your barn raising and expand your building's storage[.]” (EX1004, 156.) Further, “you will earn 100 coins” “in return for helping your friends with the Barn Raising.” (EX1017, 1-2; EX1016, 70 (“[i]f your friends click on the link they will receive 100 coins for helping you”).) In other words, based on the second user's *interaction* with the content item (indicating a user input/intent to help) and the eligibility requirements, the *FarmVille servers* determine the *influence* of whether to update server-side databases or states (e.g., barn raising progress, coin rewards, building storage) and update the game display.

140. In the fifth example (i.e., accepting an invitation to play FarmVille), “[a] post appears on your friend's Facebook news feed, asking him or her to join you in playing FarmVille. Any friends who *click* the Accept and Play button are asked to install the game and set up their farm.” (EX1004, 56.) In other words, based on the second user's *interaction* with the content item (indicating a user input/intent to accept), the *FarmVille servers* determine *influence* of updating server-side databases (e.g., list of the FarmVille players) and updating the game display (e.g., prompt to install the FarmVille game and instructions for setting up a farm/game).

141. In the sixth example (i.e., accepting neighbor requests), “[y]our Facebook friend has to *click* the Accept and Play button on the news feed post you sent before he or she officially becomes your neighbor. Friends who accept then

appear in the form of a profile picture and username in the Neighbor bar at the bottom of your FarmVille game.” (EX1004, 55.) In other words, based on the second user’s *interaction* with the content item (indicating a user input/intent to accept), the *FarmVille servers* determine the *influence* of updating server-side databases (e.g., list of neighbors) and updating the game display (e.g., Neighbor bar GUI).

142. In the seventh example (i.e., joining co-op jobs), “*neighbors* can *click* a link that automatically appears in the [Facebook] news feed post to join your co-op job.” (EX1004, 206.) In other words, based on the second user’s *interaction* with the content item (indicating a user input/intent to join), the *FarmVille servers* determine the *influence* of updating server-side databases (e.g., list of co-op job participation and status) and updating the game display (e.g., co-op job GUI).

143. FarmVille discloses or at least suggests (and a POSITA would find it obvious) that the determination of influence is by the *FarmVille servers*. “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘*the cloud*’ of *FarmVille servers* maintained by developer Zynga.”

(*Supra* §IX.A.4.a; EX1004, 11.) Thus, a POSITA would have understood that the databases and game-state information relating to gifts, items, bonuses, adopted animals, player/neighbor lists, barn-raising progress, and co-op job participation and status are maintained by the FarmVille servers. A POSITA also would have

understood that the game mechanics—including when and how databases and game state are changed—are dictated and controlled by the FarmVille servers. Accordingly, it would have been obvious that the FarmVille servers receive the data associated with the user’s click, analyze that data in view of applicable eligibility rules or timing requirements, determine the resulting influence on the game environment, and update the databases and/or game state accordingly, including by updating server-side databases, inventories, participation records, progress states, and corresponding game displays.

144. Zynga patent explicitly discloses this. The “*remote game server*, such as a game networking system . . . [can] process[] the inputs from the player, *updat[e] and/or synchroniz[e]* the game state based on the game logic and each input from the player” (EX1008, 4:35-41; *see also id.*, 12:9-15, 12:41-47, 13:20-25, 10:57-11:30.)

g. 1[E]: “and modifying, by the server, the video gaming environment based on the influence.”

145. The combination discloses or renders obvious this element.

146. In the first example (*i.e.*, accepting gifts), a player can “[c]lick the Accept and Play button next to the gift [they] want to accept” and “[a] *Gift Acceptance confirmation page appears*, as shown in Figure 4-9.” (EX1004, 67-68.) Further, “[t]he *Gift Box menu appears*, which contains all the gifts [the

player] accepted[.]” *Id.* FarmVille further explains that accepted gifts can be used in the game: “If you click the Use button, you return to your farm to place the item (if it’s a tangible item). Tangible items such as animals and decorations take up physical space on your farm. If it’s an intangible item such as a shovel, fuel, or Farm Cash, the item is added to your inventory automatically.” (EX1004, 68.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases and updating the game display. The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

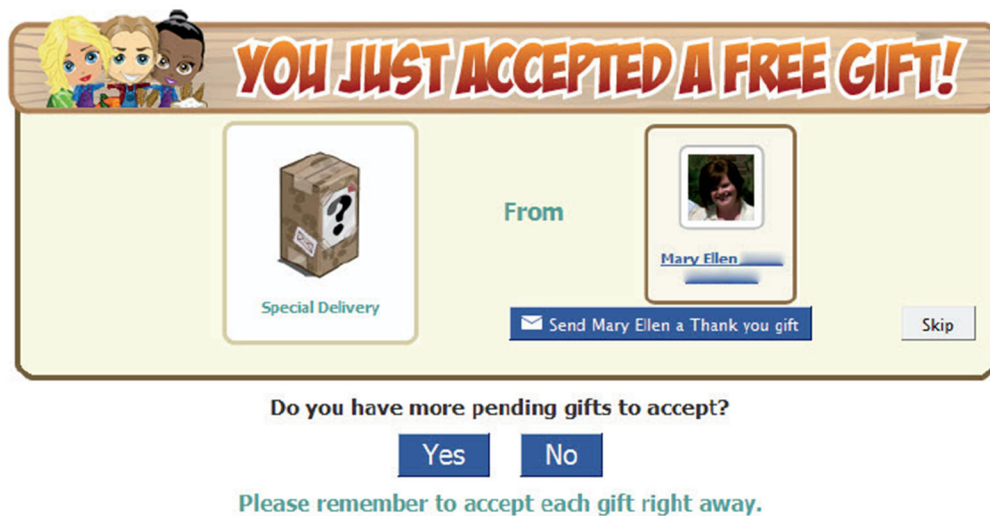


Figure 4-9: The Gift Acceptance confirmation page.

(EX1004, Figure 4-9)

147. In the second example (*i.e.*, accepting items or bonuses), “[y]our neighbors will be able to click the link that appears in their news feed to *accept the item or bonus*. . . .” (EX1004, 71.) For example, for coins and experience points,

players can “click the Get a Bonus from Them link in the news feed post” for the “[c]oins and experience points [to be] added to your FarmVille account.”

(EX1004, 149.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases (e.g., of items or bonuses) and updating the game display. The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

148. In the third example (i.e., adopting animals), “[y]our neighbors can then click the link in that message to adopt the animal and *place it on their farm*. Likewise, if you see a lost animal on your friend’s news feed, you can click the link to *adopt it for your farm. (It will appear in your Gift Box.)*” (EX1004, 46.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases (e.g., of adopted animals) and updating the game display (e.g., Farm GUI, Gift Box GUI). The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

149. In the fourth example (i.e., barn raising), “[t]en of your neighbors need to click the link in this news post over the next three days to *complete your barn raising and expand your building’s storage[.]*” (EX1004, 156.) Further, “you will *earn 100 coins*” “in return for helping your friends with the Barn Raising [by clicking on the link].” (EX1017, 1-2; *see also* EX1016, 70 (“[i]f your friends click on the link they will *receive 100 coins* for helping you”).) In other words, the

FarmVille servers modify the video gaming environment by updating server-side databases or states (*e.g.*, barn raising progress, coin rewards, building storage) and updating the game display. The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

150. In the fifth example (*i.e.*, accepting an invitation to play FarmVille), “[a]ny friends who click the Accept and Play button are *asked to install the game and set up their farm*.” (EX1004, 56.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases (*e.g.*, of the players) and updating the game display (*e.g.*, prompt to install the FarmVille game and instructions for setting up a farm/game). The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

151. In the sixth example (*i.e.*, accepting neighbor requests), “[y]our Facebook friend has to click the Accept and Play button on the news feed post you sent before he or she officially *becomes your neighbor*. Friends who accept then *appear in the form of a profile picture and username in the Neighbor bar* at the bottom of your *Farmville game*.” (EX1004, 55.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases (*e.g.*, of neighbors) and updating the game display (*e.g.*, Neighbor bar GUI). The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

152. In the seventh example (*i.e.*, accepting co-op jobs), a modification to the *video gaming environment* by the *server* is the addition of a player to the co-op job. FarmVille explains that “[y]our neighbors can click a link that automatically appears in the news feed post to *join your co-op job*.” (EX1004, 206.) In other words, the FarmVille servers modify the video gaming environment by updating server-side databases (*e.g.*, of co-op job participation and status) and updating the game display (*e.g.*, co-op job GUI). The modification is based on the *influence*. (*Supra* §IX.A.4.f.)

153. As discussed above, a POSITA would find it obvious that the modification is by the *FarmVille servers*. (*Supra* §§IX.A.4.a, IX.A.4.f; EX1004, 11.) Further, Zynga patent explicitly discloses this. The “*remote game server*, such as a game networking system . . . [can] process[] the inputs from the player, *updat[e] and/or synchroniz[e]* the game state based on the game logic and each input from the player” (EX1008, 4:35-41; *see also id.*, 12:9-15, 12:41-47, 13:20-25, 10:57-11:30.)

5. Claim 4: “The method of claim 1, further comprising: determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video gaming environment based on the gameplay status associated with the second user.”

154. The FarmVille-Zynga combination discloses this claim.

155. First, FarmVille discloses multiple gameplay statuses. “As a social game, FarmVille is partially focused on helping fellow players, known in the game as neighbors. *FarmVille neighbors* are a subset of your *Facebook friends*, so although all your FarmVille neighbors are Facebook friends, not all your Facebook friends are necessarily FarmVille neighbors.” (EX1004, 12; *see also id.*, 54-55.) Thus, FarmVille provides multiple statuses for a given gameplay: the person who owns the farm, a FarmVille player who is a neighbor, a FarmVille player who is not a neighbor, and a non-player status (*i.e.*, a Facebook friend/user who does not have a FarmVille account). Each of these statuses indicates the role of a given user in the video gaming environment.

156. Further, the FarmVille servers determine a gameplay status associated with the second user and determine the influence to the video gaming environment accordingly. In the first example (*i.e.*, accepting gifts), “you can click the FarmVille Friends tab to limit the list to only people who have installed FarmVille on their Facebook account. *You can send gifts to other Facebook friends, but they’ll have to install the game before they can accept your gifts.*” (EX1004, 66.) Thus, the FarmVille servers determine a gameplay status associated with the second user (*e.g.*, whether they are of the non-player status) and determine the influence to the video gaming environment accordingly. If they are not a non-player, the FarmVille servers would determine to provision the gift. (*Supra*

§IX.A.4.f.) Otherwise, the FarmVille servers would indicate that they'll have to install the game.

157. As another example (*i.e.*, joining a co-op job), you can “[r]ecruit[] [f]riends to [h]elp” by “[p]ublish[ing] this story to your Facebook Wall and your friends’ home pages[.]” (EX1004, 206, Figure 12-5.) However, only “[*y/our neighbors*] can click a link that automatically appears in the news feed post to join your co-op job.” *Id.* Thus, it would be obvious that the FarmVille servers determine a gameplay status associated with the second user (*e.g.*, whether they are neighbors) and determine the influence to the video gaming environment accordingly. If they are a neighbor, the FarmVille servers would determine to update the game display and server-side databases to add the neighbor to the co-op job. Otherwise, it would have been obvious that the FarmVille servers would prompt the second user to install the game or become a neighbor.

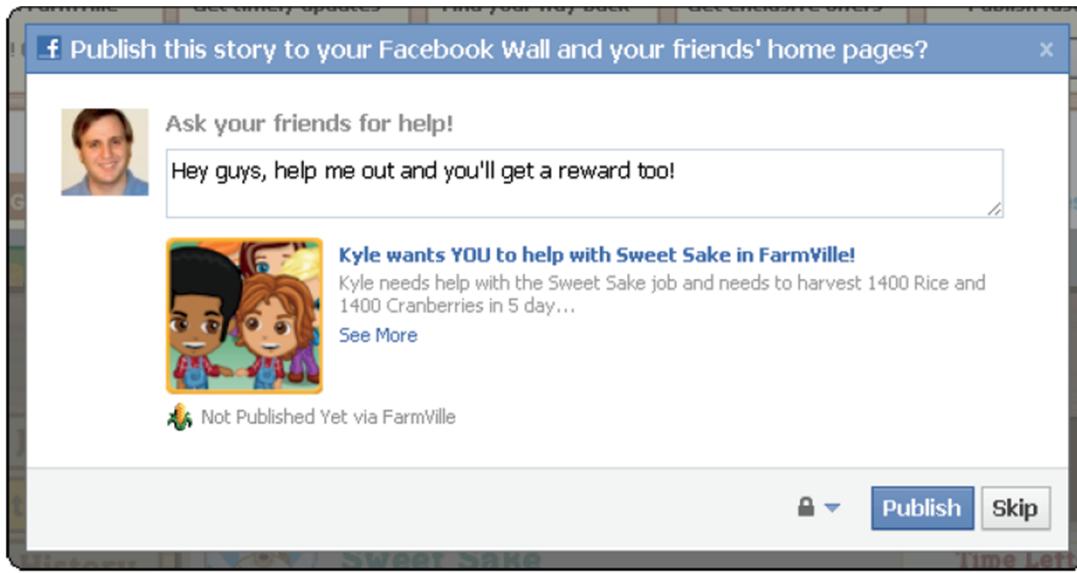


Figure 12-5: Posting a note about your co-op job to the Facebook news feed.

158. As another example (*i.e.*, accepting items or bonuses), FarmVille discloses that “some items shared via news feeds are available for only a limited time, or are available only to *the first few neighbors* who click the link.” (EX1004, 71, 190.) Since the items/bonuses are available only to the first few neighbors, a POSITA would have understood that the FarmVille servers would determine if the second user (*i.e.*, the person interacting with the content item) is a neighbor before providing the item/bonus in FarmVille.

159. Zynga patent also discloses this claim. First, Zynga patent discloses that in an “online computer game, a game engine manages the game state of the game. Game state comprises all game play parameters, including *player character state, non-player character (NPC) state*, in-game object state, game world state

(e.g., internal game clocks, game environment), and other game play parameters.” (EX1008, 3:61-66.) Game state can also “encompass[] the notion of *player character state* and refers to any parameter value that characterizes the state of an in-game element, such as a non-player character, a virtual object (such as a wall or castle), and the like.” (*Id.*, 4:63-66.)

160. Second, Zynga patent discloses determining a gameplay status or “player character state,” which can “refer to any in-game characteristic of a player character, such as location, assets, levels, condition, health, status, inventory, skill set, name, orientation, affiliation, specialty, and so on.” (EX1008, 4:57-60.)

161. Zynga patent also discloses determining the influence to the video gaming environment based on the gameplay status associated with a player. Zynga patent explains that “*player character state*” can be used by the game engine to “determine the outcome of game events.” (EX1008, 4:66-5:1.) Further the Zynga patent describes that “[a] game engine determines the outcome of a game event according to a variety of factors, such as the game rules, a player character's in-game actions, *player character state*, game state, interactions of other player characters, and random calculations.” (EX1008, 12:9-13.) It would have been obvious to combine Zynga patent’s implementation details with FarmVille. (*Supra* §IX.A.3.)

6. Claim 5: “The method of claim 4, wherein the gameplay status is selected from a group consisting of a core player status, a casual player status, and a non-player status.”

162. The ’388 patent discloses “[a] ‘*casual*’ or ‘*follower*’ *game play* status enables players to play from a different perspective, providing *access to only a portion of the entire game.*” (EX1001, 8:9-12, 15:22-23.)

163. A FarmVille player who is a neighbor to a farm discloses the “casual player status.” In FarmVille, a neighbor has limited capabilities and has a different perspective in the game. A neighbor may visit another neighbor’s farm, however, the neighbor is “quite *limited in the actions* [they] can take to help [their] neighbor . . . except for feeding chickens, *[they] can complete only five of these tasks in aggregate* per neighbor farm per calendar day. For example, [they] can *harvest two trees, fertilize two plots of land, and unwither one crop before having to move on to another farm* for the day.” (EX1004, 61-62.)

164. Further, a FarmVille player who is not a neighbor also discloses the “casual player status.” For example, even “[a]fter your friend installs the game . . . you still have to send that friend a neighbor request . . . Your friend then has to accept this request before you can visit his or her farm or take part in other neighbor activities with that player.” (EX1004, 57.) Thus, the non-neighbor player’s capabilities are limited.

165. Thus, FarmVille discloses a core player status (*i.e.*, the person who owns the farm), a casual player status (*e.g.*, a FarmVille player who is a neighbor, a FarmVille player who is not a neighbor), and a non-player status (*i.e.*, a Facebook friend who does not have a FarmVille account). The FarmVille servers determine one of these gameplay statuses associated with the second user and determine the influence to the video gaming environment based on the gameplay status associated with the second user. (*Supra* §IX.A.5.)

7. Claim 7: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, applying the influence to a game item associated with the second user in the video gaming environment.”

166. FarmVille discloses this claim. As discussed above, FarmVille discloses determining a gameplay status associated with the second user. (*Supra* §IX.A.5.) Further, FarmVille discloses, responsive to the gameplay status associated with the *second user* being the *player* status, applying the influence to a game item associated with the *second user* in the *video gaming environment*. “[Y]ou can click the FarmVille Friends tab to limit the list to only people who have installed FarmVille on their Facebook account. You can send gifts to other Facebook friends, but *they’ll have to install the game before they can accept your gifts.*” (EX1004, 66.) Thus, the FarmVille servers determine a gameplay status associated with the second user (*e.g.*, whether they are players or not) and

determine the influence to the video gaming environment accordingly. If they are a player, the FarmVille servers would determine to provide the gift, thereby applying the influence (*e.g.*, incrementing a count) to the game item. (*Supra* §IX.A.4.f.)

167. Providing a gift discloses “applying the influence to a game item” because it increments the gift count. This is consistent with the ’388 patent (*See e.g.*, EX1001, 20:52-54 (a “#thunderstorm” comment leads to awarding “a thunderstorm item (in-game item)”), 16:46-49 (“user rewards/points including data on unlocked content, number of points, and rewards” are all “items”).).

168. Further, it would have been obvious that, in any of the FarmVille examples in claim 1, the FarmVille servers would first determine that the second user (*i.e.*, the user who clicked the post) is a FarmVille player before providing any reward (*e.g.*, gifts, animals, items) to the second user.

8. Claim 8: “The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the first user in the video gaming environment.”

169. FarmVille discloses this claim.

170. In the barn-raising example, a user initiates a barn raising, the “*barn-raising request*” is now posted on [their] *news feed*.” (EX1004, 156.) “Ten of *your neighbors* need to *click the link* in this news post over the next three days to

complete your barn raising and expand your building's storage[.]” *Id.* In other words, responsive to receiving the interaction (*i.e.*, the tenth neighbor clicking the link within three days), the first user (*i.e.*, the user who initiated a barn raising) is rewarded with a completed barn-raising event and expanded building storage.
(*Supra* §IX.A.4.f.)

171. As another example (*i.e.*, accepting neighbor requests), the “Facebook friend has to *click* the Accept and Play button on the news feed post you sent before he or she officially becomes your neighbor.” (EX1004, 55.) In other words, responsive to receiving the interaction (*i.e.*, a Facebook friend clicking the accept and play button on the news feed post), the first user (*i.e.*, the user who sent the neighbor request) is rewarded with a new neighbor in the game.

172. Further, as another example, (*i.e.*, joining co-op jobs), “*neighbors* can *click* a link that automatically appears in the [Facebook] news feed post to join your co-op job.” (EX1004, 206.) In other words, responsive to receiving the interaction (*i.e.*, a neighbor clicking the link that appears in the Facebook news-feed post), the first user (*i.e.*, the user who initiated the co-op job) is rewarded with a participant and helper with the co-op job.

173. A POSITA would understand (and it would be obvious) that such rewards are provided in response to receiving the *interaction* of the *second user* with the *content item* on the *social online service*.

9. Claim 9: “The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the second user in the video gaming environment, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.”

174. FarmVille discloses this claim.

175. In the first example (*i.e.*, accepting gifts), “[w]hile visiting a neighbor’s farm, click that farm’s chicken coop to feed the chickens. A pop-up box notifies you as to whether you’ve received a Mystery Egg for your trouble. If you have, you can click the Share button to in turn post a Mystery Egg to your Facebook news feed, as discussed in the ‘Giving and Receiving Gifts’ section, later in this chapter.” (EX1004, 63.) “Although *you can’t keep the Mystery Eggs you find in your own Chicken Coop*, you can share them with your neighbors by clicking the Share button to post the egg to your Facebook news feed.” (*Id.*, 165, Figure 10-4.) After sharing it to Facebook, “[y]our neighbors will be able to *click* the link that appears in their news feed to accept the item or bonus[.]” (*Id.*, 71, *see also id.*, 67-68.) In other words, the mystery egg and associated prizes are uncollected rewards associated with the first user (“you”) and is provided to the second user (“neighbor”). (*Supra* §IX.A.4.f.)



Figure 10-4: A notification that you have found a Mystery Egg.

(EX1004, Figure 10-4)

176. In the third example (*i.e.*, adopting animals), “[a]s you play FarmVille, every so often a pop-up notification appears, asking whether you want to find a home for a lost, lonely animal. ***You can’t keep the animal for yourself,*** but if you click Share, you can post a message about the lost animal to your Facebook news feed. Your neighbors can then click the link in that message to adopt the animal and place it on their farm.” (EX1004, 46, Figure 3-9.) In other words, the animal is an uncollected reward associated with the first user (“you”) and is provided to the second user (“neighbor”). (*Supra* §IX.A.4.f.)



Figure 3-9: A lost animal shared via a friend's Facebook newsfeed.

(EX1004, Figure 3-9)

10. Claim 11

a. 11[PR]: “A system for hosting and providing a video gaming environment to one or more users, comprising:”

177. The combination discloses or renders obvious this preamble. As discussed above, FarmVille discloses hosting and providing a video gaming environment to one or more users. (*Supra* §§IX.A.4.a, IX.A.4.b.) It would have been obvious to a POSITA that implementing the FarmVille game involves a computer-implemented system. Zynga patent discloses this. (EX1008, 19:11-13, claim 1.)

b. 11[A]: “one or more processors;”

178. The combination discloses or renders obvious this element. As discussed above, the FarmVille-Zynga combination discloses a computer-implemented system for providing the FarmVille video gaming environment to one

or more users. (*Supra* §§IX.A.4.a, IX.A.4.b.) Specifically, FarmVille discloses that “FarmVille is a Web-based game that you can play without inserting a disc or installing any programs to your hard drive. Your farm and the game program required to maintain it exist as part of a series of *online data centers* maintained by FarmVille’s publisher, Zynga.” (EX1004, 16.) “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘the cloud’ of *FarmVille servers* maintained by developer Zynga.” (EX1004, 11.) A POSITA would have understood (and it would be obvious) that FarmVille servers would include one or more processors. Zynga patent discloses this. (EX1008, 19:11-14, claim 22.)

c. 11[B]: “and a memory storing instructions that, when executed by the one or more processors, cause the system to:”

179. The FarmVille-Zynga combination discloses or renders obvious this element. (*Supra* §§IX.A.4.a, IX.A.10.b.) A POSITA would have understood (and it would be obvious) that FarmVille servers would include a memory. Further, FarmVille states that “[y]our farm and the *game program* required to maintain it exist as part of a series of online data centers maintained by FarmVille’s publisher, Zynga.” (EX1004, 16.) In other words, the FarmVille servers comprise “game program required to maintain [the farm],” which a POSITA would understand to include or be instructions—stored on FarmVille servers’ memory—that are

executed by FarmVille servers' processors to implement the game. Zynga patent discloses this. (EX1008, 17:35-59, claim 22.)

d. 11[C][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

180. FarmVille discloses this element for reasons stated above with respect to 1[A][1]. (*Supra* §IX.A.4.b.)

e. 11[C][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

181. FarmVille discloses this element for reasons stated above with respect to 1[A][2]. (*Supra* §IX.A.4.c.)

f. 11[D]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

182. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[B]. (*Supra* §IX.A.4.d.)

g. 11[E]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

183. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[C]. (*Supra* §IX.A.4.e.)

h. 11[F]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

184. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[D]. (*Supra* §IX.A.4.f.)

i. 11[G]: “and modify the video gaming environment based on the influence.”

185. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[E]. (*Supra* §IX.A.4.g.)

11. Claim 14: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determine the influence to the video gaming environment based on the gameplay status associated with the second user.”

186. The FarmVille-Zynga combination discloses this claim for reasons stated above with respect to claim 4. (*Supra* §IX.A.5.)

12. Claim 16: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, apply the influence to a game item associated with the second user in the video gaming environment.”

187. FarmVille discloses this claim for reasons stated above with respect to claim 7. (*Supra* §IX.A.7.)

13. Claim 17: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, provide a reward to the first user in the video gaming environment.”

188. FarmVille discloses this claim for reasons stated above with respect to claim 8. (*Supra* §IX.A.8.)

14. Claim 18: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the second user in the video gaming environment, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.”

189. FarmVille discloses this claim for reasons stated above with respect to claim 9. (*Supra* §IX.A.9.)

15. Claim 20

a. 20[PR]: “A computer program product comprising a non-transitory computer usable medium including a computer readable program for hosting and providing a video gaming environment to one or more users, wherein the computer readable program when executed on a computer causes the computer to:”

190. FarmVille discloses or renders obvious this element. As discussed above with respect to 1[PR] and 11[PR], FarmVille discloses a computer-implemented system for providing the FarmVille video gaming environment to one or more users. (*Supra* §§IX.A.4.a, IX.A.10.a.) Specifically, FarmVille discloses that “FarmVille is a Web-based game that you can play without inserting a disc or installing any programs to your hard drive. Your farm and the *game program* required to maintain it exist as part of a series of *online data centers* maintained by FarmVille’s publisher, Zynga.” (EX1004, 16.) “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘the cloud’ of

FarmVille servers maintained by developer Zynga.” (EX1004, 11.) A POSITA would therefore have understood that the FarmVille servers include and/or execute software stored on non-transitory computer-readable media that hosts, maintains, and provides the FarmVille gaming environment to users. In other words, FarmVille discloses or renders obvious a computer program product comprising a non-transitory computer usable medium storing computer-readable instructions that, when executed by one or more computers or servers, cause the computers to implement and provide the claimed video gaming environment and related functionality.

b. 20[A][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

191. FarmVille discloses this element for reasons stated above with respect to 1[A][1]. (*Supra* §IX.A.4.b.)

c. 20[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

192. FarmVille discloses this element for reasons stated above with respect to 1[A][2]. (*Supra* §IX.A.4.c.)

d. 20[B]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

193. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[B]. (*Supra* §IX.A.4.d.)

e. 20[C]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

194. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[C]. (*Supra* §IX.A.4.e.)

f. 20[D]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

195. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[D]. (*Supra* §IX.A.4.f.)

g. 20[E]: and modify the video gaming environment based on the influence.

196. The FarmVille-Zynga combination discloses this element for reasons stated above with respect to 1[E]. (*Supra* §IX.A.4.g.)

16. Claim 21: “The method of claim 1, wherein the server is a third-party server.”

197. FarmVille discloses this claim consistent with the description of the '388 patent. The '388 patent states that hosting a game on a “third-party” server is an alternative to hosting the game on “social networks.” Specifically, “[t]hese video gaming applications referenced or described here may either be hosted by an online community, for example, *one or more social networks*, or alternatively, by *third party servers that are wholly or partially dedicated to gaming applications.*” (EX1001, 6:41-45; *see also id.* 2:36-39, 11:11-24, FIG. 1.)

198. Consistent with the '388 patent, FarmVille discloses that the *FarmVille servers* are separate from *Facebook servers*. “FarmVille is a Web-based game that you can play without inserting a disc or installing any programs to your hard drive. Your farm and the game program required to maintain it exist as part of a series of *online data centers* maintained by FarmVille’s publisher, *Zynga*.” (EX1004, 16.) “This farm, and the game itself, aren’t actually stored permanently on your computer, but exist on ‘the cloud’ of *FarmVille servers maintained by developer Zynga*.” (EX1004, 11.) Further, the game can be accessed without Facebook on FarmVille.com. (*Supra* §IX.A.4.a; EX1004, 24.) Thus, a POSITA would understand that FarmVille discloses a third party server.

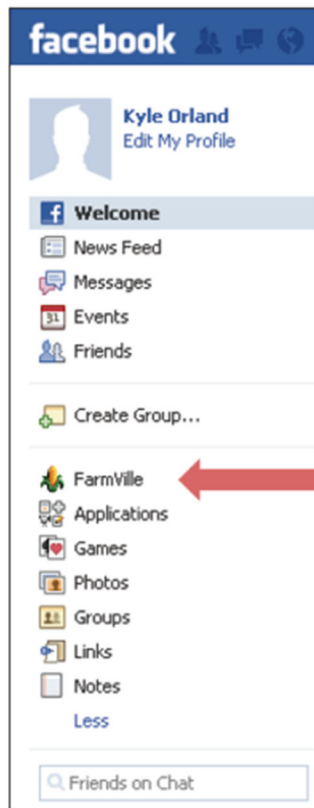


Figure 2-3: How the FarmVille bookmark appears on your Facebook sidebar.

(EX1004, Figure 2-3)



Figure 2-4: Playing FarmVille through FarmVille.com.

(EX1004, Figure 2-4)

17. Claim 22: “The method of claim 1, wherein the server is a third-party server that hosts the video gaming environment.”

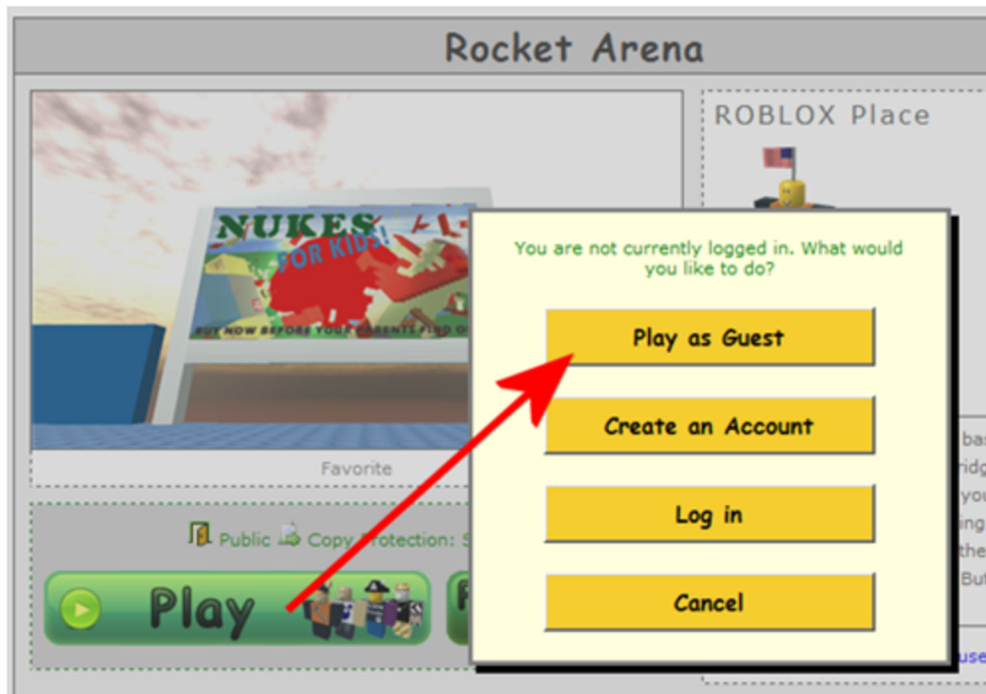
199. As discussed above with respect to claim 21, FarmVille discloses a third-party server. (*Supra* §IX.A.16.) As discussed above with respect to claim 1[PR], FarmVille’s video gaming environment is hosted on the third-party server (e.g., FarmVille servers maintained by developer Zynga.) (*Supra* §IX.A.4.a.)

B. Ground 2: FarmVille, Zynga Patent, and Shedletsky Render Obvious Claims 4-5, 14.

1. Summary of Shedletsky

200. Shedletsky was published/made publicly available at least by March 5, 2012, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §102(a). (EX1009, 1; EX1024, 1-2, 52-53.) The Examiner never found, and Applicant never cited, Shedletsky during prosecution.

201. Shedletsky describes the “guest mode” feature of the game Roblox. Shedletsky describes that “[w]e’ve got two big features to announce in this release: guest mode and the ability to purchase ROBUX! . . . Some people want to try out ROBLOX to see if it’s any good before they take the time to make an account. A lot of game websites force you to create an account before you can even play their games to see if they are worth your time.” (EX1009, 1.)



(EX1009, 1.)

202. Shedletsky describes that the guest player has fewer capabilities in the game compared to a player with a user account. “We think anyone who gets in-game and plays ROBLOX for 10 minutes is probably going to want to create a full account (especially since it is free), *in order to get the benefits of membership, such as having your own place, collecting the daily login bonus, and being able to customize the look of their ROBLOXian.*” (EX1009, 1.)

203. Shedletsky describes that “[g]uest mode players appear in-game with the name ‘Guest ###’. They’re just like normal users, except they can only use Super Safe chat and *their stats don’t get logged from game to game.*” (EX1009, 1.)

2. A POSITA would have been motivated to combine FarmVille-Zynga and Shedletsky.

204. It would have been obvious for a POSITA to combine Shedletsky’s “guest mode” with FarmVille-Zynga, thereby adding a guest mode (*i.e.*, “casual player status”) to FarmVille-Zynga. The FarmVille-Zynga combination and Shedletsky are related to online video games and address how users with different statuses can interact with game features. FarmVille is a “[w]eb-based farming simulation game” in which users manage virtual farms, interact with neighbors, exchange gifts, provide help, participate in co-op jobs, and respond to social-

network posts. (EX1004, 7, 9, 65-71, 201-206.) Zynga patent discloses a “collaborative diplomacy mechanics system for an online game.” (EX1008, Abstract.) Shedletsky likewise describes an online video game, Roblox, and enables users to “play as guest.” (EX1009, 1.) Shedletsky explains that the guest mode is for “people [who] want to try out ROBLOX to see if it’s any good before they take the time to make an account.” *Id.* Thus, FarmVille-Zynga and Shedletsky are analogous to the ’388 patent, from the same field of endeavor, and all relate to the same technical problems of addressing online game access, user participation, and how to encourage more users to interact with a game environment.

205. The FarmVille-Zynga-Shedletsky combination would result in a system where Shedletsky’s “guest mode” is added to FarmVille-Zynga to allow broader participation in FarmVille, increase conversion of non-players into full players, and improve FarmVille’s social mechanics. FarmVille requires both a Facebook account and a FarmVille account. (EX1004, 2.) In the combination, FarmVille would allow any Facebook user to play FarmVille in a guest mode without having to create a FarmVille account. (*See* EX1004.) The guest player would have limited capabilities, for example, they may not have their own farm or save their own stats but can help on the farms of other players (*e.g.*, help with barn-raising or participate in a co-op job, review the gaming environment). Thus, when

a Facebook user interacts with a FarmVille content item, the FarmVille servers would additionally determine the Facebook user's gameplay status (e.g., whether the Facebook user has a "guest mode" account and/or is indicating a desire to play in the guest mode) and determine the influence of the interaction based on that status.

206. A POSITA would have been motivated to make this combination because FarmVille already relied on social-network interactions and invitations to attract new users, but its disclosed system required a user to install the FarmVille game and set up a farm before playing. (*See, e.g.*, EX1004, 19-23, 55-57.) Shedletsky identifies a known problem with that kind of requirement: users may want to try an online game "before they take the time to make an account." (EX1009, 1.) A POSITA would have recognized that adding Shedletsky's guest mode to FarmVille-Zynga would reduce friction for new users to participate in FarmVille, ultimately leading to player conversion.

207. The combination would have provided predictable benefits. First, guest mode would allow broader FarmVille participation by any Facebook user. A Facebook user who sees a barn-raising request, co-op job notice, or other FarmVille-related social post would be able to participate in or access a limited FarmVille experience without first completing a full account setup. This would make FarmVille's social content items more effective at attracting new players.

208. Second, the combination would improve conversion of non-players into full players. Shedletsky expressly teaches this benefit by explaining that “anyone who gets in-game and plays ROBLOX for 10 minutes is probably going to want to create a full account,” especially to obtain membership benefits.

(EX1009, 1.) A POSITA would have applied the same reasoning to FarmVille. Allowing a guest to view a friend’s farm and provide limited help would increase the likelihood that the guest would later create a full FarmVille account to obtain the benefits of full play, such as maintaining a personal farm and saving stats.

209. Third, the combination would provide higher entertainment value. FarmVille already teaches that having more neighbors and social interactions provide are beneficial, including receiving gifts, earning coins and XP, collecting bonuses, participating in co-op jobs, and completing neighbor-assisted tasks. FarmVille states that “[t]he more neighbors you have, the more opportunities you have to receive gifts, earn coins, collect bonuses, and build up your farm.” (EX1004, 51.) It also teaches that users rely on neighbors for co-op jobs, and that co-op farming is “one of the most social aspects of this already very social game.” (EX1004, 201.) Adding guest-mode interactions would increase the pool of potential helpers beyond existing FarmVille players and neighbors.

210. The combination would have been straightforward with a reasonable expectation of success. FarmVille already tracks whether a user is a Facebook

friend, FarmVille player, neighbor, pending neighbor, gift recipient, co-op participant, or non-player invitee, etc. A POSITA would have recognized that adding a “guest mode” role is simply an additional status in the same type of user-status framework already used by FarmVille. The combination also would have been obvious to try. There are a finite number of predictable access levels for a game: full access, limited access (*e.g.*, due to role, account, payment, time), and no access. Shedletsky expressly teaches the limited guest-access mode. Applying Shedletsky’s known limited guest-access option to the FarmVille-Zynga combination would have been a routine design choice among predictable alternatives for expanding the game’s player base, and would improve FarmVille in the same way. Shedletsky’s known benefits would prompt its application in the same field based on design incentives/market forces.

3. Claim 4: “The method of claim 1, further comprising: determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video gaming environment based on the gameplay status associated with the second user.”

211. Claim 1 is obvious in view of FarmVille-Zynga. (*Supra* §IX.A.4.)

Claims 4-5, and 14 are obvious in further view of Shedletsky. FarmVille-Zynga-Shedletsky combination discloses this claim.

212. First, FarmVille-Zynga-Shedletsky discloses multiple gameplay statuses. As discussed above with respect to Ground 1, FarmVille-Zynga provides multiple statuses for a given gameplay: the person who owns the farm, a FarmVille player who is a neighbor, a FarmVille player who is not a neighbor, and a non-player status (*i.e.*, a Facebook friend/user who does not have a FarmVille account). (*Supra* §IX.A.5.) Each of these statuses indicates the role of a given user in the video gaming environment. Shedletsky provides an additional status for a given gameplay: a person playing in guest mode.

213. Further, as discussed, the FarmVille servers determine a gameplay status associated with the second user and determine the influence to the video gaming environment accordingly. (*Supra* §IX.A.5.) A POSITA would have understood that the FarmVille-Zynga-Shedletsky combination similarly discloses the determination of gameplay status associated with the second user, and determines the influence to the video gaming environment accordingly.

214. Specifically, in the FarmVille-Zynga-Shedletsky combination, the FarmVille servers would determine the gameplay status associated with the second user (*e.g.*, whether the Facebook user has a “guest mode” account and/or is indicating a desire to play in the guest mode) to determine whether he or she is qualified to take an action, and determine the influence of updating the server-side

databases (e.g., of barn-raising and co-op job participation and status) and updating the game display accordingly.

4. Claim 5: “The method of claim 4, wherein the gameplay status is selected from a group consisting of a core player status, a casual player status, and a non-player status.”

215. As discussed above in Ground 1, the FarmVille-Zynga combination discloses a core player status, a casual player status, and a non-player status consistent with the '388 patent. (*Supra* §IX.A.6.)

216. Shedletsky further discloses a casual player status consistent with the '388 patent. Shedletsky describes the “guest mode” feature of the game Roblox. Shedletsky describes that there is a list of features that are only available to players with a registered account, “such as having your own place, collecting the daily login bonus, and being able to customize the look of their ROBLOXian.” (EX1009, 1.) As discussed, the '388 patent discloses “[a] *‘casual’ or ‘follower’ game play* status enables players to play from a different perspective, providing *access to only a portion of the entire game.*” (EX1001, 8:9-12.) Similarly, Shedletsky’s guest players are provided access to only a portion of the entire game, because they are not allowed to create or access their own place, and cannot perform various functions such as collecting daily login bonus or customizing the look of the character.

5. Claim 14: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determine the influence to the video gaming environment based on the gameplay status associated with the second user.”

217. FarmVille-Zynga-Shedletsky discloses this claim for reasons stated above with respect to claim 4. (*Supra* §IX.B.3.)

C. Ground 3: FarmVille, Zynga Patent, and Calin Render Obvious Claims 10 and 19.

1. Summary of Calin

218. Calin was published/made publicly available at least by January 14, 2010, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §§102(a)/(b). (EX1024, 1-2, 49-50.) The Examiner never found, and Applicant never cited, Calin during prosecution.

219. Calin, an article published on Unigamesity.com, is about FarmVille’s barn raising functionality. Calin answers the question “Can you help the same friend expand their storage more than once?” by stating that “you can help your friend *once per day!*” (EX1017, 1.)

2. A POSITA would have been motivated to combine FarmVille-Zynga and Calin.

220. At the time of the alleged invention, it would have been obvious to a POSITA to combine FarmVille-Zynga with Calin. FarmVille and Calin references document the same FarmVille social-gaming environment and describe the same

barn-raising feature in which neighbors interact with Facebook posts to help expand a player's in-game storage buildings. (EX1004, Title; EX1017.) Zynga patent discloses a social “collaborative diplomacy mechanics system for an online game.” (EX1008, Abstract.) The FarmVille-Zynga combination and Calin are analogous art to the '388 patent, from the same field of endeavor, and all relate to the same technical problems of providing online video games with social network integration. A POSITA would have been motivated to look to Calin for techniques and details regarding implementing the barn raising feature in FarmVille.

221. The references address the same technological and gameplay objectives of increasing user engagement, encouraging repeated social-network interactions, and managing collaborative in-game progression through server-controlled game mechanics. FarmVille discloses posting barn-raising requests to Facebook and requiring neighbors to click the associated links within a limited period to expand storage capacity. (EX1004, 156.) Calin further teaches that a neighbor may help with a barn raising “once per day.” (EX1017, 1.) A POSITA would have been motivated to incorporate Calin's once-per-day participation rule into FarmVille's barn-raising, thereby regulating user participation in social-network-driven gameplay events to promote sustained engagement and balanced progression and improve FarmVille in the same way.

222. The combination would improve FarmVille’s game environment and yield predictable results. Applying Calin’s once-per-day restriction to FarmVille’s barn-raising mechanics would prevent repetitive or excessive contributions by the same neighbor and encourage neighbors to return over multiple days. Such participation limits help to pace gameplay, incentivize recurring visits, and increase social interaction within online games.

223. The known benefits of Calin would prompt its application in the same field based on design incentives and market forces. Social-network games such as FarmVille depended heavily on repeated user engagement, viral sharing, and continued interaction among neighbors. Restricting barn-raising assistance to once per day would encourage players to revisit the game regularly, generate additional Facebook interactions, and maintain longer-term player activity, thereby improving retention and monetization opportunities. Because both references concern the same FarmVille game and compatible Facebook-based interaction mechanisms, implementing the once-per-day limitation would have been straightforward and readily achievable. FarmVille itself discloses imposing time-related restrictions. For example, FarmVille discloses that “[y]ou can send up to a maximum of 50 gifts, in aggregate, to your FarmVille neighbors in a **4-hour period**. You are also limited to one gift per neighbor **every four hours**.” (EX1004, 66.) Further, “you can click any pig in your Pigpen to send it on a hunt for truffles on your neighbors’

farms . . . After hunting for a truffle, a pig has to *rest for two days* before it can hunt again.” (*Id.*, 170.) In addition, “you can feed each neighbor’s chickens only *once per day*.” (*Id.*, 62.)

224. It also would have been obvious to try combining the references. There were only a finite number of predictable ways to regulate participation in collaborative social-game events, including limiting the number or timing of qualifying clicks by a given user, either per period or in total. Calin expressly discloses one such known solution in the identical FarmVille barn-raising context. Incorporating that known restriction into FarmVille’s barn-raising system merely applies a known gameplay-control technique to an existing social-gaming framework to achieve the predictable result of paced progression and increased recurring engagement, without requiring much effort and with a reasonable expectation of success. The combination is straightforward and readily achievable by a person of ordinary skill in the art, as demonstrated by successful implementations in the field.

3. Claim 10: “The method of claim 1, wherein modifying the video gaming environment based on the influence includes: applying the influence to a game item in the video gaming environment; and responsive to applying the influence to the game item, preventing the influence from being applied to the game item for a predetermined time period.”

225. Claim 1 is obvious in view of the FarmVille-Zynga combination. (*Supra* §IX.A.4.) Claims 10 and 19 are obvious in further view of Calin. As

discussed above in Ground 1 with respect to 1[D] and 1[E], FarmVille discloses modifying the video gaming environment based on the influence determined. (*Supra* §§IX.A.4.g, IX.A.4.f.) After a user initiates a barn raising, the “barn-raising request is now posted on [their] news feed.” (EX1004, 156.) “Ten of your neighbors need to click the link in this news post over the next three days to complete your barn raising and expand your building’s storage[.]” *Id.* Calin answers the question “Can you help the same friend expand their storage more than once?” by stating that “you can help your friend *once per day!*” (EX1017, 1.) In other words, the FarmVille servers would apply the influence (*e.g.*, a neighbor’s help) to a game item (*e.g.*, barn) based on a neighbor’s click and prevent the same influence (*e.g.*, the same neighbor’s help) from being applied to the game item for a predetermined time period (*e.g.*, a day).

4. Claim 19: “The system of claim 11, wherein to modify the video gaming environment based on the influence, the instructions, when executed, cause the system to: apply the influence to a game item in the video gaming environment; and responsive to applying the influence to the game item, prevent the influence from being applied to the game item for a predetermined time period.”

226. FarmVille-Zynga-Calin discloses this claim for reasons stated above with respect to claim 10. (*Supra* §IX.C.3.)

**D. Ground 4: FarmVille, Zynga Patent, and Tweet Land
Render Obvious Claims 1-22**

1. Summary of Tweet Land

227. Tweet Land was published/made publicly available at least by October 10, 2011, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §102(a). (EX1005, EX1024, 1-2, 9-10.) The Examiner never found, and Applicant never cited, Tweet Land during prosecution.

228. Tweet Land describes a game called Tweet Land, “one of the world’s first *video game platforms* that plays with reality, or ‘Real Time Gaming’.” (EX1005, 1.) The game explores “[w]hat would happen if people’s social networks effected what happens in a video game[.]” *Id.* “In the Tweet Land universe you will be able to play several *videogames* but it will launch with two initial games. A *racing game* called Route 140 and an *action game* called Love City.” (*Id.*, 2.)



(EX1019, 2; EX1005³, 2.)



(EX1019, 3; EX1005, 3)

229. Tweet Land uses “real-time . . . *tweets* drawn from *Twitter*” to “trigger elements into the game.” (EX1005, 2; EX1014, 1.) It “reaches out into the vast ocean of *Twitter* and utilizes special keywords from *real tweets* to create things in the game.” (EX1005, 2; EX1014, 1.) Specifically, “every time someone in the world tweets something,” the tweets “affect the gameplay of Tweet Land by triggering certain action-keywords.” Examples of such action-keywords includes “car accident,” “meteor,” “shooting star,” “tsunami,” “volcano eruption,” “fireflies,” “zombie,” “beach,” “love,” “hate,” “shotgun,” and “lightsaber,” such

³ EX1005 is the archived version of EX1019 on Internet Archive.

that “[e]vents and gameplay are always changing.” (EX1005, 2; *see also* EX1011, 2 (“anyone’s tweets can affect your gameplay. The tweets used are chosen by the keywords they have.”))

230. For example, “if someone *tweets the word ‘meteor’* then a meteor will fly in from off screen[.]” (EX1014, 2.) In the figure below, a user (@someone) tweeted “*I just saw a huge meteor!*” In response, a meteor appears in the Tweet Land game.



(EX1019, 2; EX1005, 2)

231. In the figure below, a user (@zerocartin) tweeted “*Quake in Papua New Guinea! Is there any tsunami warning?*” In response, a tsunami appears in the Tweet Land game, as shown below.



(EX1014, 2)

2. A POSITA would have been motivated to combine FarmVille-Zynga and Tweet Land.

232. At the time of the invention, it would have been obvious for a POSITA to combine FarmVille-Zynga with Tweet Land. They are analogous art because they all relate to online video gaming environment with social network integration, and more specifically to using social network activities (e.g., Facebook clicks, tweets) to affect gameplay. (EX1004, 53; EX1005, 2.) As discussed, “FarmVille is a Web-based farming simulation game produced by a gaming company called Zynga.” (EX1004, 7.) Zynga patent discloses a “collaborative diplomacy mechanics system for an online game.” (EX1008, Abstract.) Tweet Land is a “video gaming platform[] that plays with reality, or ‘Real Time

Gaming’.” (EX1005, 1.) All the references are therefore from the same field of endeavor and relate to the same technical problems of using social-network interactions to drive or influence gameplay in an online video gaming environment, as well as game mechanics governing items or rewards acquisition and players interaction. (EX1001, Abstract.)

233. FarmVille already discloses Facebook-based interactions associated with FarmVille posts, including accepting gifts, bonuses, and items, adopting animals, helping with barn raising, accepting neighbor requests, inviting users to become FarmVille players, and joining co-op jobs. In FarmVille, those interactions are initiated when a user *clicks* a hyperlink or button in a Facebook post. Tweet Land discloses that social-network *comments* containing keywords can themselves serve as gameplay inputs that trigger gameplay effects. (EX1005, 2.) A POSITA would have found it obvious to combine the references such that comments posted in response to FarmVille Facebook posts would trigger the same or additional gameplay effects to improve user interaction and social engagement.

234. Combining FarmVille-Zynga and Tweet Land would result in a system where, instead of requiring a user to *click* a hyperlink in a Facebook news-feed post, the user can *comment* on the post to affect gameplay. For example, a comment such as “#*accept*” would accept a gift, bonus, item, neighbor request, or FarmVille invitation. A comment such as “#*adopt*” would adopt an animal for the

user's farm. A comment such as “#*barn*” would contribute toward a barn-raising request. A comment such as “#*join*” would join a co-op job. In the same manner that FarmVille already determines gameplay effects based on Facebook clicks, the combined FarmVille-Zynga-Tweet Land system would analyze the content of the comments, identify the keywords as taught by Tweet Land, determine the corresponding gameplay influence, and modify the FarmVille environment accordingly.

235. Additionally or alternatively, combining the references would result in a system where comments as taught by Tweet Land would directly cause events or environmental changes to occur. For example, a Facebook comment containing “#*meteor*” on a FarmVille-related Facebook post would cause a meteor event to appear within the FarmVille environment (*e.g.*, in a farm). Similarly, a comment containing “#*love*” would trigger an award, bonus, or reward for the owner of the farm associated with the Facebook post or for the commenter (if the commenter is a FarmVille player). The FarmVille servers would receive the Facebook comment data, analyze the included keyword as taught by Tweet Land, determine the corresponding gameplay influence, and modify the FarmVille gaming environment in response, consistent with the gameplay-affecting comment mechanisms taught by Tweet Land. Applying those teachings to FarmVille would predictably enable

Facebook comments associated with FarmVille posts to trigger additional in-game events and environmental effects.

236. A POSITA would have been motivated to combine the references to reduce disruption to users interacting with FarmVille content on Facebook. In FarmVille, clicking hyperlinks in Facebook posts may redirect users away from the Facebook news feed (*e.g.*, into a separate confirmation page). By contrast, using Tweet Land's comment-based approach would allow users to remain directly within the Facebook news-feed interface while still interacting with FarmVille gameplay content. Thus, users would participate in FarmVille-related gameplay actions simply by posting comments on Facebook posts without navigating away from the Facebook page they were already viewing. A POSITA would have recognized that reducing such navigation friction would improve usability, encourage more frequent interactions, and increase social-network engagement with FarmVille-related content.

237. A POSITA further would have recognized that Tweet Land's comment-based interaction technique would expand the pool of users capable of influencing the FarmVille environment. FarmVille's click-based interactions generally contemplated that Facebook users become FarmVille players, if not already, in order to affect the game. (EX1004, 66.) Tweet Land, however, teaches gameplay effects triggered by anyone on the social network "even if they are not

playing or don't know anything about Tweet Land.” (EX1005, 2.) Applying those teachings to FarmVille would allow any Facebook user capable of commenting on a FarmVille-related Facebook post—including users who do not play FarmVille—to influence the FarmVille environment through the types of keywords taught in Tweet Land. For example, a Facebook user who did not maintain a FarmVille account would post “#meteor” to affect the farm as taught by Tweet Land (although the user may still be required to have a FarmVille account for some other comments such as #accept to take effect in the game). A POSITA would have understood that enabling broader social-network participation would increase virality, social engagement, and visibility of FarmVille content across Facebook, ultimately increasing participation into the game.

238. FarmVille-Zynga-Tweet Land combination would yield the predictable result of enhanced interactivity, increased social-network participation, and improved gameplay engagement. By incorporating Tweet Land's comment-based gameplay techniques into FarmVille's Facebook interaction framework, the combined system would provide a richer and more socially immersive gaming environment in which ordinary Facebook comments directly affected gameplay outcomes, rewards, events, and in-game environmental changes. Such integration would encourage users and their social-network contacts to interact more frequently with FarmVille-related content because those interactions would

produce gameplay effects without requiring users to leave the Facebook news-feed environment. The combination therefore would have predictably improved the responsiveness, entertainment value, social reach, and commercial appeal of FarmVille's social-network-integrated gaming system using known and compatible techniques disclosed in the prior art.

239. The known benefits of Tweet Land would prompt the application of Tweet Land in the same field based on design incentives and market forces and yield the predictable result of enhancing the usability, accessibility, and social engagement of FarmVille's Facebook-integrated gaming system. Because both FarmVille-Zynga and Tweet Land include social-network interactions that affect gameplay environments, a POSITA would have been motivated to use the known comment-based interaction techniques of Tweet Land to improve FarmVille in the same way. Further, it would have been obvious to try combining the teachings of FarmVille-Zynga and Tweet Land. There were only a finite number of identified and predictable solutions for allowing social-network interactions to influence gameplay environments, including clicks and comments. The combination is straightforward and readily achievable by a POSITA, as demonstrated by successful implementations in the field. Prior art such as Tweet Land successfully demonstrated that comment-based interactions would directly and reliably

influence gameplay events and environmental changes, and thus there would have been a reasonable expectation of success for combining the references.

3. Claim 1

a. 1[PR]: “A computer-implemented method for providing a video gaming environment hosted on a server to one or more users, comprising:”

240. FarmVille-Zynga-Tweet Land discloses this preamble for reasons stated above with respect to 1[PR] in Ground 1. (*Supra* §IX.A.4.a.)

b. 1[A][1]: “providing access to the video gaming environment, by the server, to the one or more users via one or more user devices,”

241. FarmVille-Zynga-Tweet Land discloses this element for reasons stated above with respect to 1[A][1] in Ground 1. (*Supra* §IX.A.4.b.)

c. 1[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

242. FarmVille-Zynga-Tweet Land discloses this element for reasons stated above with respect to 1[A][2] in Ground 1. (*Supra* §IX.A.4.c.)

d. 1[B]: “transmitting, by the server, a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

243. FarmVille-Zynga-Tweet Land discloses this element for reasons stated above with respect to 1[B] in Ground 1. (*Supra* §IX.A.4.d.)

e. 1[C]: “receiving, by the server, an interaction via the social online service of a second user with the content item on the social online service;”

244. FarmVille-Zynga-Tweet Land discloses this element for reasons stated above with respect to 1[C] in Ground 1. (*Supra* §IX.A.4.e.) In the FarmVille-Zynga-Tweet Land combination, the FarmVille servers would receive the interaction (*e.g.*, Facebook comments) to parse and determine influence.

f. 1[D]: “determining, by the server, an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

245. FarmVille-Zynga-Tweet Land discloses this element for reasons stated above with respect to 1[D] in Ground 1. (*Supra* §IX.A.4.f.)

246. First, Tweet Land discloses a *video gaming environment*, specifically, “one of the world’s first *video game platforms* that plays with reality, or ‘Real Time Gaming.’” (EX1005, 1) “In the Tweet Land universe you will be able to play several *videogames* but it will launch with two initial games. A *racing game* called Route 140 and an *action game* called Love City.” (*Id.*, 2; *see also* EX1014, 1.) A screenshot of Tweet Land’s two initial *videogames* is shown below.

INITIAL TWEETLAND GAMES



A race in the most
dangerous highway
of the Web



Concept Art

A city where
Love and Hate
finally face-off

(EX1019, 2; EX1005, 2)

247. Further, Tweet Land discloses determining an *influence* to the video gaming environment based on the *interaction* via the social online service of the *second user*. “The games work very simply; every time *someone* in the world *tweets* something, their tweets affect the gameplay of Tweet Land by *triggering certain action-keywords*.” Examples of such action-keywords includes “car accident,” “meteor,” “shooting star,” “tsunami,” “volcano eruption,” “fireflies,” “zombie,” “beach,” “love,” “hate,” “shotgun,” and “lightsaber,” such that “[e]vents and gameplay are always changing.” (EX1005, 2; *see also* EX1014, 1 (“Tweet Land . . . reaches out into the vast ocean of Twitter and utilizes special keywords from real tweets to create things in the game.”).)

248. For example, “if someone *tweets the word ‘meteor’* then *a meteor will fly in from off screen*[.]” (EX1014, 2.) In the figure below, a user (@someone) tweeted “*I just saw a huge meteor!*” In response, a meteor appears in the Tweet Land game.



(EX1019, 2; EX1005, 2)

249. In the figure below, a user (@zerocartin) tweeted “*Quake in Papua New Guinea! Is there any tsunami warning?*” In response, a tsunami appears in the Tweet Land game, as shown below.



(EX1014, 2)

250. As discussed above, in the FarmVille-Zynga-Tweet Land combination, a user can *comment* on a FarmVille-related Facebook post to affect gameplay. (*Supra* §IX.D.2.) For example, a comment such as “#*accept*” would indicate the user’s desire to accept a gift, bonus, item, neighbor request, or FarmVille invitation, similar to a click. A comment such as “#*adopt*” would indicate the user’s desire to adopt an animal for the user’s farm, similar to a click. A comment such as “#*barn*” would indicate the user’s desire to contribute toward a barn-raising request, similar to a click. A comment such as “#*join*” would indicate the user’s desire to join a co-op job, similar to a click. In the same manner that FarmVille already determines gameplay effects based on Facebook clicks, the

combined FarmVille-Zynga-Tweet Land system would analyze the content of the comments, identify the keywords as taught by Tweet Land, determine the corresponding gameplay influence as taught by FarmVille (*e.g.*, given eligibility conditions and rules of FarmVille), and modify the FarmVille environment accordingly.

251. Additionally or alternatively, combining the references would result in a system where comments would directly cause events or environmental changes to occur. For example, a Facebook comment containing “#*meteor*” on a FarmVille-related Facebook post would cause a meteor event to appear within the FarmVille environment. Similarly, a comment containing “#*love*” would trigger an award, bonus, or reward for the owner of the farm associated with the Facebook post or for the commenter (if the commenter is a FarmVille player). The FarmVille servers would receive the Facebook comment data, analyze the included keyword, determine the corresponding gameplay influence as taught by Tweet Land, and modify the FarmVille gaming environment in response, consistent with the gameplay-affecting comment mechanisms taught by Tweet Land.

g. 1[E]: and modifying, by the server, the video gaming environment based on the influence.

252. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[E] in Ground 1 and 1[D] above. (*Supra* §§IX.A.4.g, IX.D.3.f.)

4. Claim 2: “The method of claim 1, wherein the interaction of the second user with the content item includes a comment including a keyword.”

253. FarmVille-Zynga-Tweet Land discloses this claim for reasons stated above with respect to 1[C]. (*Supra* §IX.A.4.e.) For example, Tweet Land discloses that the *interaction* of the *second user* includes a comment including a *keyword*. Tweet Land explains that “every time *someone* in the world *tweets* something,” the tweets “affect the gameplay of Tweet Land by triggering certain *action-keywords*.” Examples of such “*action-keywords*” includes “car accident,” “meteor,” “shooting star,” “tsunami,” “volcano eruption,” “fireflies,” “zombie,” “beach,” “love,” “hate,” “shotgun,” and “lightsaber,” such that “[e]vents and gameplay are always changing.” (EX1005, 2, *see also* EX1014, 1 “real-time . . . tweets drawn from Twitter that would trigger elements into the game” and the creation of things in the game “utilizes special *keywords* from real *tweets*”.) Tweet Land thus discloses *interactions* of a *second user* on a social online service via posts/comments (*e.g.*, tweets) that include a keyword.

254. It would have been obvious to combine the references. (*Supra* §IX.D.2.)

5. Claim 3: “The method of claim 1, further comprising: determining a keyword from the interaction of the second user with the content item; and determining the influence to the video gaming environment based on the keyword.”

255. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to 1[D]. (*Supra* §IX.D.3.f.) First, Tweet Land discloses determining a keyword from the interaction of the second user with the content item. For example, as discussed above, Tweet Land explains that “every time *someone* in the world *tweets* something,” the tweets “affect the gameplay of Tweet Land by triggering certain action-*keywords*.” (*Supra* §§IX.D.3.f; EX1005, 2.) Examples of such action-keywords includes “car accident,” “meteor,” “shooting star,” “tsunami,” “volcano eruption,” “fireflies,” “zombie,” “beach,” “love,” “hate,” “shotgun,” and “lightsaber,” such that “[e]vents and gameplay are always changing.” (EX1005, 2; *see also* EX1014, 2.) In the FarmVille-Zynga-Tweet Land combination, the FarmVille servers would receive the Facebook comment data, analyze the included keyword as taught by Tweet Land, determine the corresponding gameplay influence, and modify the FarmVille gaming environment. It would have been obvious to combine the references. (*Supra* §IX.D.2.)

6. Claim 4: “The method of claim 1, further comprising: determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video

gaming environment based on the gameplay status associated with the second user.”

256. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above with respect to claim 4 in Ground 1, the FarmVille-Zynga combination discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim (*Supra* §IX.D.2; *infra* §§IX.D.7-IX.D.9.)

7. Claim 5: “The method of claim 4, wherein the gameplay status is selected from a group consisting of a core player status, a casual player status, and a non-player status.”

257. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above with respect to claim 5 in Ground 1, the FarmVille-Zynga combination discloses this claim. (*Supra* §IX.A.6.)

258. Further, Tweet Land discloses that “every time *someone* in the world tweets something, their tweets affect the gameplay of Tweet Land by triggering certain action-keywords,” and “people around the world are always creating tweets for the game based on real-life experiences, even if they are *not playing* or don’t know anything about Tweet Land.” (EX1005, 2.) It would have been obvious to combine the references. (*Supra* §IX.D.2.) In the FarmVille-Zynga-Tweet Land combination, anyone on Facebook who can view the post can comment on the news feed post to affect the FarmVille game using the types of keywords taught in

Tweet Land (*e.g.*, meteor), even if they do not have a FarmVille account. This user may not be able to use some keywords (*e.g.*, #accept to accept a gift) because they do not have a FarmVille account. Thus, this user can be mapped to either a casual player (*e.g.*, a player with limited access to the gameplay) or a non-player (*e.g.*, a player without a game account).

8. Claim 6: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, applying the influence to a game item associated with the first user in the video gaming environment.”

259. Tweet Land discloses that anyone “even if they are not playing or don’t know anything about Tweet Land” can tweet the keywords and “their tweets affect the gameplay of Tweet Land by triggering certain action-keywords.” (*Supra* §IX.D.7; EX1005, 2.) In the FarmVille-Zynga-Tweet Land combination, anyone on Facebook who can view the post can comment on the news feed post using Tweet Land’s keywords (*e.g.*, “meteor”) to affect the game, even if they are not playing and do not have a FarmVille account. To analyze a comment containing “meteor” (or other keywords in Tweet Land), it would have been obvious that the FarmVille servers would determine whether the commenter is a player to determine whose farm to apply the meteor to. Responsive to the commenter being a non-player, the FarmVille servers would apply the influence (*e.g.*, meteor) to a

game item (e.g., farm) associated with the first user because the commenter himself does not have a farm or other game objects.

9. Claim 7: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, applying the influence to a game item associated with the second user in the video gaming environment.”

260. FarmVille-Zynga patent-Tweet Land discloses this claim. As discussed above with respect to claim 7 in Ground 1, the FarmVille-Zynga combination discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim (*Supra* §§IX.A.7; IX.D.2.) For example, in the combination, if a user comments “accept” to accept a gift or item or bonus, the FarmVille servers would first confirm that the user is a FarmVille player and has a FarmVille account, and after confirmation, apply the influence to the game items in the game (*i.e.*, incrementing a count to the gift or bonus or updating the gift box menu to include the gift/item). The same is true for other examples (e.g., animal adoption, barn raising).

10. Claim 8: “The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the first user in the video gaming environment.”

261. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above with respect to claim 8 in Ground 1, the FarmVille-Zynga combination

discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim. (*Supra* §§IX.A.8, IX.D.2.) In the FarmVille-Tweet Land combination, the rewards would similarly be provided to the first user responsive to receiving comments.

11. Claim 9: “The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the second user in the video gaming environment, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.”

262. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above with respect to claim 9 in Ground 1, the FarmVille-Zynga combination discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim (*Supra* §§IX.A.9, IX.D.2.) In the FarmVille-Zynga-Tweet Land combination, the rewards may similarly be provided to the second user responsive to receiving comments.

12. Claim 10: “The method of claim 1, wherein modifying the video gaming environment based on the influence includes: applying the influence to a game item in the video gaming environment; and responsive to applying the influence to the game item, preventing the influence from being applied to the game item for a predetermined time period.”

263. Claim 1 is obvious in view of FarmVille-Zynga-Tweet Land. (*Supra* §IX.D.3.) As discussed above, FarmVille-Zynga-Tweet Land discloses modifying the video gaming environment based on the influence, which includes applying the

influence to a game item in the video gaming environment. (*Supra* §§IX.D.3.g, IX.D.3.f.)

264. Zynga patent discloses applying an influence to a game item and responsive to applying the influence, preventing the influence from being applied to the game item for a predetermined time period. For example, Zynga patent discloses usage of a super weapon on the combat game. “At 508, a super weapon is selected based on the profile of the ally. For example, the super weapon is selected from an array of super weapons in possession by the ally,” however, “the super power weapon is cast ***only one time within a predefined amount of time*** (e.g., within the combat mode or within 24 hours of the attack.” (EX1008, 14:35-37, 14:48-50.) Thus, Zynga patent discloses that responsive to applying an influence to the game item (e.g., using the super weapon), the influence cannot be applied to the game item for a predetermined period of cool-down time.

265. Further, Zynga patent discloses placing a time restriction on activity. For example, Zynga patent discloses that “[g]enerally, an in-game neighbor can only be used as an ally of the player in the battle for a predetermined amount of time, for example, 24 hours.” (EX1008, 13:17-20.) “Additionally, that ally is not available to help enter another combat engagement until a fixed amount of time (i.e., 24 hrs) passes.” (*Id.*, 14:15-17.)

266. A POSITA would have been motivated to combine FarmVille-Zynga with Tweet Land such that the Zynga patent's teachings of imposing a time limit can be applied to FarmVille. A POSITA would have understood that it would be obvious to place a cool-down period on certain activities such as causing a meteor event to appear. For example, the combination would result in a system where, responsive to effecting a "meteor event" on a farm, preventing another "meteor event" from being applied to the farm for a predetermined time period. This combination would be obvious because it reduces spamming-like activities and extends FarmVille's existing activity restrictions in a predictable and complementary way.

267. Additionally or alternatively, it would have been obvious for a POSITA to apply Zynga patent's teachings of imposing a time restriction in FarmVille's activities such as adopting animals, joining co-op jobs, initiating and completing barn-raising, much like Zynga patent's disclosures of time restriction placed on helping with combat engagement. For example, the combination would result in a system where FarmVille-Zynga-Tweet Land prevents an update to the Gift Box Menu, neighbor list, barn, or co-op job group for a period of time since the most recent update. FarmVille already discloses time-based restrictions for carrying out various activities in FarmVille (*e.g.*, sending gifts, pig truffle hunting, feeding neighbor's chickens). (EX1004, 66, 170, 62.) Zynga patent discloses

“combin[ing] the harvest mechanic and other features previously unique to action space social games like Farmville and Café World with the battle mechanics of the adapted spreadsheet games like Mafia Wars.” (EX1008, 14:51-55.) Similarly, the Zynga patent describes “engagements” or “simple tasks (e.g., plant a crop, clean a stove), complex tasks (e.g., build a farm or business, run a café), or other events.” (EX1008, 12:13-15.)

268. The FarmVille-Zynga-Tweet Land combination provides several predictable benefits. First, this would impose a steadier pace to the gameplay. Further, this would reduce repetitive or spam-like activity and improve user experience. For example, placing a cool-down period to prevent repeated appearances of meteors within the FarmVille environment through Facebook comments would improve a user’s gameplay experience and prevent abuse or spam-like activity that disrupts normal gameplay.

269. A POSITA would have had a reasonable expectation of success in applying Zynga patent’s time-based restriction to the combination without requiring undue effort. The combination is straightforward and readily achievable by a person of ordinary skill in the art, as demonstrated by successful implementations in the field such as Zynga patent. Furthermore, FarmVille itself successfully implemented time-based restrictions on certain activities such as truffle hunting and chicken feeding.

270. The combination would be obvious to try, as there is a finite number of ways to pace gameplay, such as restricting the number of items or eligible time period. Applying Zynga patent's time-based solution to the combination would improve combination in the same way. Zynga patent's known benefits would prompt its application in the same field based on design incentives/market forces.

13. Claim 11

a. 11[PR]: “A system for hosting and providing a video gaming environment to one or more users, comprising:”

271. FarmVille-Zynga-Tweet Land discloses this preamble. As discussed above with respect to claim 11[PR] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim (*Supra* §§IX.A.10.a, IX.D.2.) As discussed above, the FarmVille-Zynga-Tweet Land combination discloses hosting and providing a video gaming environment to one or more users. *Id.*

b. 11[A]: “one or more processors;”

272. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[A] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §§IX.A.10.b, IX.D.2.)

c. 11[B]: “and a memory storing instructions that, when executed by the one or more processors, cause the system to:”

273. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[B] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §§IX.A.10.c, IX.D.2)

d. 11[C][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

274. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[C][1] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §§IX.A.10.d, IX.D.2.)

e. 11[C][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

275. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[C][2] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element (*Supra* §§IX.A.10.e, IX.D.2.)

f. 11[D]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

276. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[D] in Ground 1, FarmVille discloses this element,

and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §§IX.A.10.f, IX.D.2.)

g. 11[E]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

277. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[E] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §§IX.A.10.g, IX.D.2.)

h. 11[F]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

278. FarmVille-Zynga-Tweet Land discloses this element. As discussed above with respect to claim 11[F] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element (*Supra* §§IX.A.10.h, IX.D.2.)

i. 11[G]: and modify the video gaming environment based on the influence.

279. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, with respect to claim 11[G] in Ground 1, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element (*Supra* §§IX.A.10.i, IX.D.2.)

14. Claim 12: “The system of claim 11, wherein the interaction of the second user with the content item includes a comment including a keyword.”

280. FarmVille-Zynga-Tweet Land discloses this claim as discussed above, with respect to claim 2. (*Supra* §IX.D.4.)

15. Claim 13: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a keyword from the interaction of the second user with the content item; and determine the influence to the video gaming environment based on the keyword.”

281. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 3. (*Supra* §IX.D.5.)

16. Claim 14: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determine the influence to the video gaming environment based on the gameplay status associated with the second user.”

282. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 4. (*Supra* §IX.D.6.)

17. Claim 15: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, apply the influence to a game item associated with the first user in the video gaming environment.”

283. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 6. (*Supra* §IX.D.8.)

18. Claim 16: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, apply the influence to a game item associated with the second user in the video gaming environment.”

284. FarmVille-Zynga-Tweet Land discloses this claim for reasons stated above with respect to claim 7. (*Supra* §IX.D.9.)

19. Claim 17: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, provide a reward to the first user in the video gaming environment.”

285. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 8. (*Supra* §IX.D.10.)

20. Claim 18: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the second user in the video gaming environment, the reward for the second user being an amount of uncollected reward associated with the first user in the video gaming environment.”

286. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 9. (*Supra* §IX.D.11.)

21. Claim 19: “The system of claim 11, wherein to modify the video gaming environment based on the influence, the instructions, when executed, cause the system to: apply the influence to a game item in the video gaming environment; and responsive to applying the influence to the game item, prevent the influence from being applied to the game item for a predetermined time period.”

287. FarmVille-Zynga-Tweet Land discloses this claim as discussed above with respect to claim 10. (*Supra* §IX.D.12.)

22. Claim 20

a. 20[PR]: “A computer program product comprising a non-transitory computer usable medium including a computer readable program for hosting and providing a video gaming environment to one or more users, wherein the computer readable program when executed on a computer causes the computer to:”

288. FarmVille-Zynga-Tweet Land discloses this element. As discussed above, FarmVille discloses this element, and a POSITA would have understood that FarmVille-Zynga-Tweet Land combination similarly discloses this element. (*Supra* §IX.D.3.) Zynga discloses this. (EX1008, 17:35-59, claim 22.)

b. 20[A][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

289. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[A][1]. (*Supra* §IX.D.3.b.)

c. 20[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

290. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[A][2]. (*Supra* §IX.D.3.c.)

d. 20[B]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

291. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[B]. (*Supra* §IX.D.3.d.)

e. 20[C]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

292. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[C]. (*Supra* §IX.D.3.e.)

f. 20[D]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

293. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[D]. (*Supra* §IX.D.3.f.)

g. 20[E]: and modify the video gaming environment based on the influence.

294. FarmVille-Zynga-Tweet Land discloses this element as discussed above with respect to 1[E]. (*Supra* §IX.D.3.g.)

23. Claim 21: “The method of claim 1, wherein the server is a third-party server.”

295. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above, FarmVille discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim. (*Supra* §IX.D.2.)

24. Claim 22: “The method of claim 1, wherein the server is a third-party server that hosts the video gaming environment.”

296. FarmVille-Zynga-Tweet Land discloses this claim. As discussed above, FarmVille discloses this claim, and a POSITA would have understood that the FarmVille-Zynga-Tweet Land combination similarly discloses this claim. (*Supra* §IX.D.2.)

E. Ground 5: Barclay '019 Renders Obvious Claims 1-8, 11-17, and 20-23.

1. Summary of Barclay '019

297. Barclay '019 was filed on March 2, 2012, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §102(e). (EX1006, 1.) The Examiner never found, and Applicant never cited, Barclay '019 during prosecution.

298. Barclay '019 provides a *video gaming environment*. For example, “the wagering game unit [] can present wagering games, such as *video poker, video black jack, video slots, video lottery*, reel slots, etc., in whole or part.” (EX1006, 22:25-27.) FIG. 3 shows an exemplary *video gaming environment*.

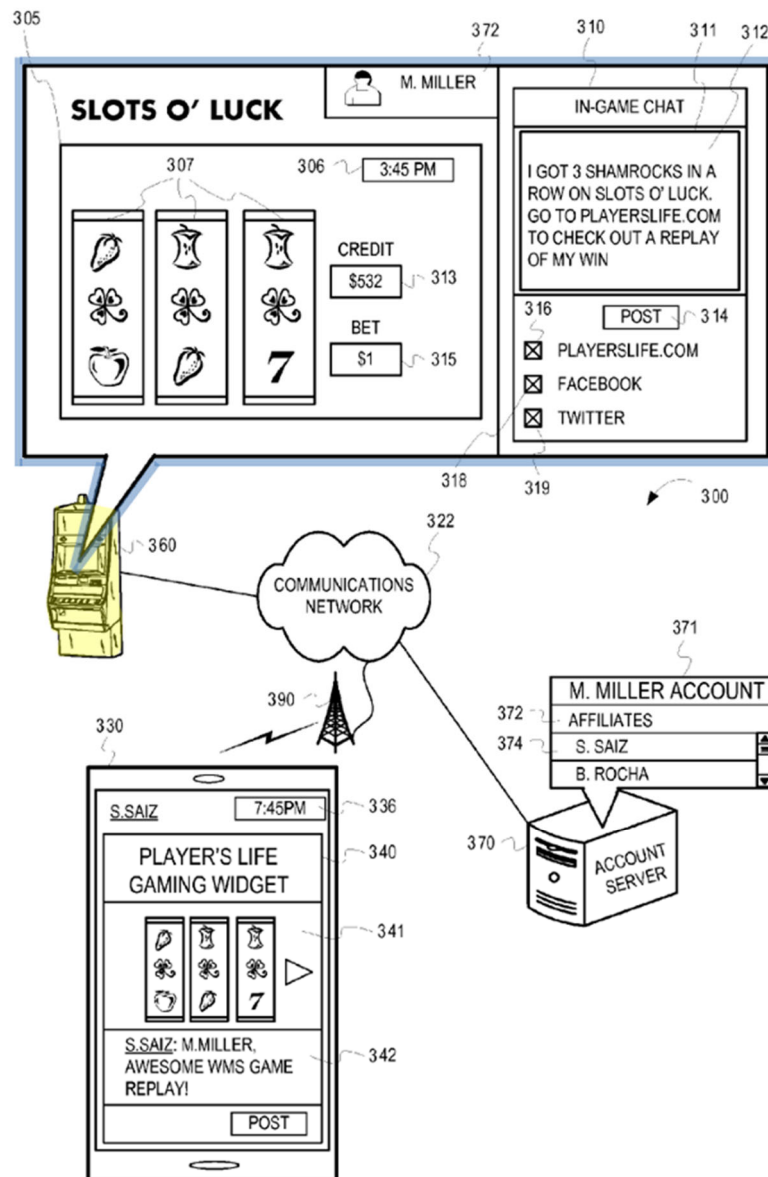


FIG. 3

299. In Barclay '019, a *video game player* can make a *post about gameplay results* on a *social network*. Referring to FIG. 3, a “*player [M. Miller]* can receive a specific gameplay result (e.g., a random result of *three shamrocks in a row* via a combination of symbols on the reels 307).” (EX1006, 9:40-44.) The “*player* can activate the post control 314 (e.g., via button press, via touch-screen,

etc.) which publishes the *message 312* to one or more *social networking venues* (e.g., to *Playerslife.com*, to *Facebook.com*, to *Twitter.com*, etc.). . . .” (*Id.*, 9:48-52.) Referring to FIG. 3, the *gameplay result (three shamrocks in a row)* is posted on *Playerslife*, as shown on *S. Saiz’s* mobile device.

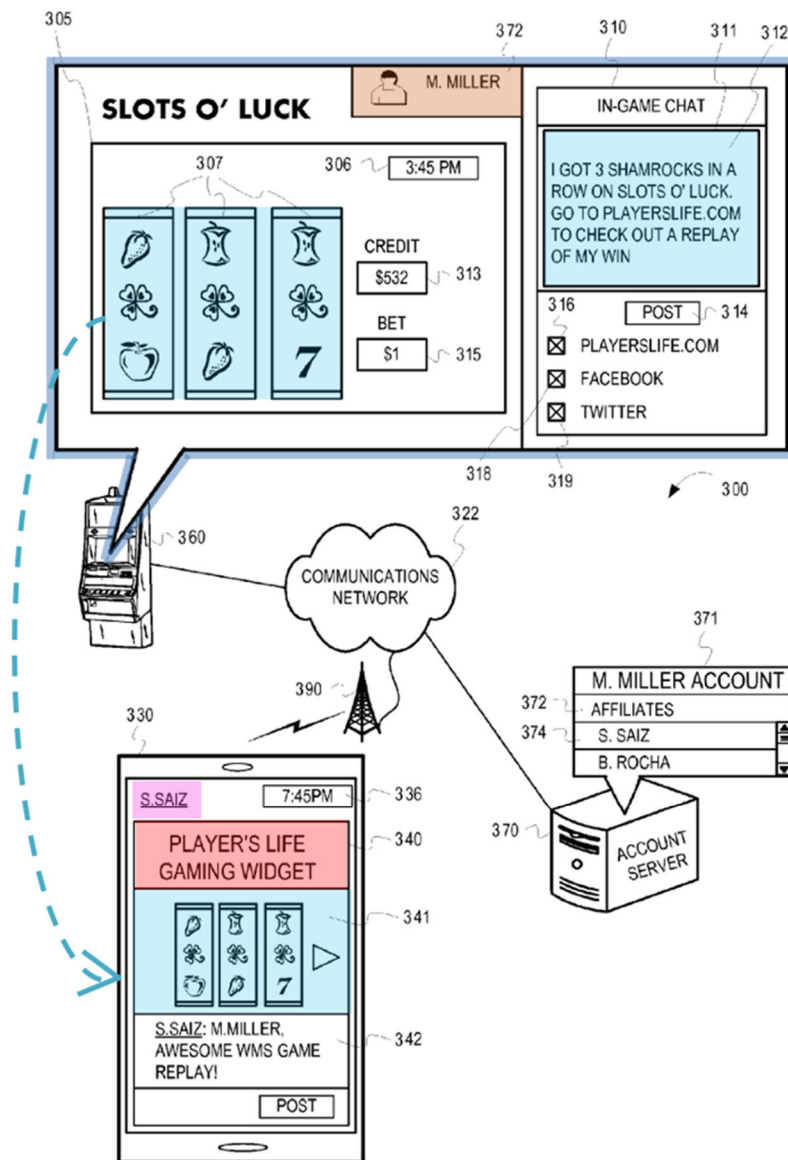


FIG. 3

300. A *second user* can *comment* on the post to *affect* the video gaming environment. A “*social contact of the first user (e.g., a second user, S. Saiz, who is a friend of the first user, Marcus Miller), may view a publication of the message 312 via the mobile device 330*” and “*post[] a comment 342.*” (EX1006,10:1-11.) “The *comment 342* includes the key phrase 132C (i.e., the phrase ‘WMS game replay’). The server 150, for example, may *award the second user* (e.g., via user account 374) the default point value 133C for the usage of the key phrase 132C.” (EX1006, 10:11-15.)

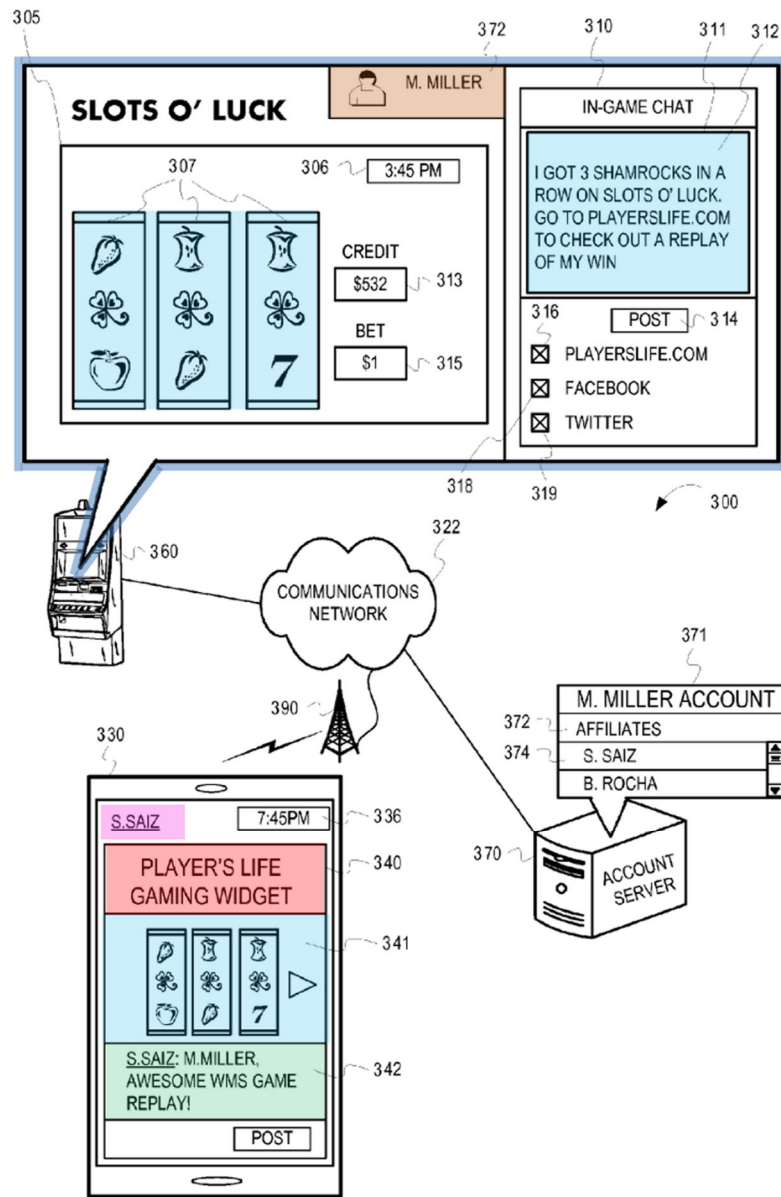


FIG. 3

301. Barclay '019 discloses a *gaming server* that performs the operations above. For example, as shown in FIG. 1, to determine how a social network comment affects the game, “the *server 150* can parse the message [] and search for first phrases (e.g., words or combinations of words) that match, or are substantially

similar to, second phrases from a group, or library, of key words or phrases, as indicated in a *list 130.*” (EX1006, 3:32-36.)

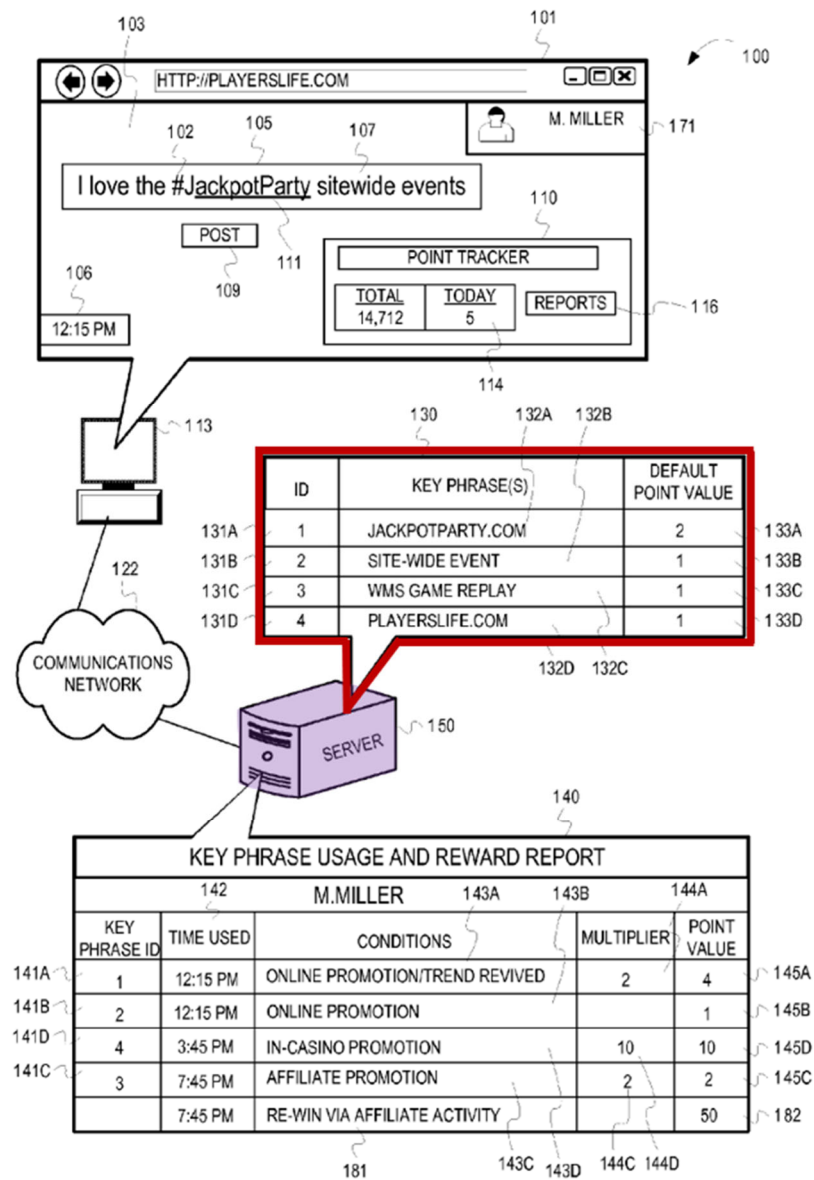


FIG. 1

302. Barclay '019 discloses numerous ways a social-network interaction such as *comments*, *clicks*, and *views* can affect the game. For example, “if enough users *click on* the post of *the message 312*, or if the first user can get enough other

users to register for an online account to see the posted message 312, the first user may ‘*re-win*’ the *wagering game win*.” (EX1006, 10:31-34.) As another example, “[t]he server 150 can track a number of times that other users *activate* the *link 111* and visit the website. The sever 150 can *award points* that vary in value based on the number of activated links to the online gaming venue. . . .” (*Id.*, 5:18-21.) As another example, “the first user *receives a bonus reward in the wagering game 305 and/or receives an award of points* (e.g., wins a total award value 182 in the report 140 in FIG. 1, because the condition 181 indicated that a sufficient number of affiliates, such as S. Saiz, *viewed* the *game replay 341*).” (*Id.*, 10:26-30.)

2. Claim 1

a. 1[PR]: “A computer-implemented method for providing a video gaming environment hosted on a server to one or more users, comprising:”

303. Barclay ’019 discloses a computer-implemented method for providing a *video gaming environment*. Referring to FIG. 3, “a wagering game system (‘system’) 300 includes a *wagering game* machine 360. . . .” (EX1006, 9:12-13.) FIG. 3 shows that the wagering game machine 360 provides a *video gaming environment*. Barclay ’019 states that “the wagering game unit [] can present wagering games, such as *video poker, video black jack, video slots, video lottery, reel slots, etc., in whole or part.*” (EX1006, 22:25-27; *see also id.* 23:17-22

(“the wagering game machine 1200 can be an electromechanical wagering game machine configured to play mechanical slots, or it can be an electronic wagering game machine configured to *play video casino games, such as blackjack, slots, keno, poker, blackjack, roulette, etc.*”), 19:17-31.)

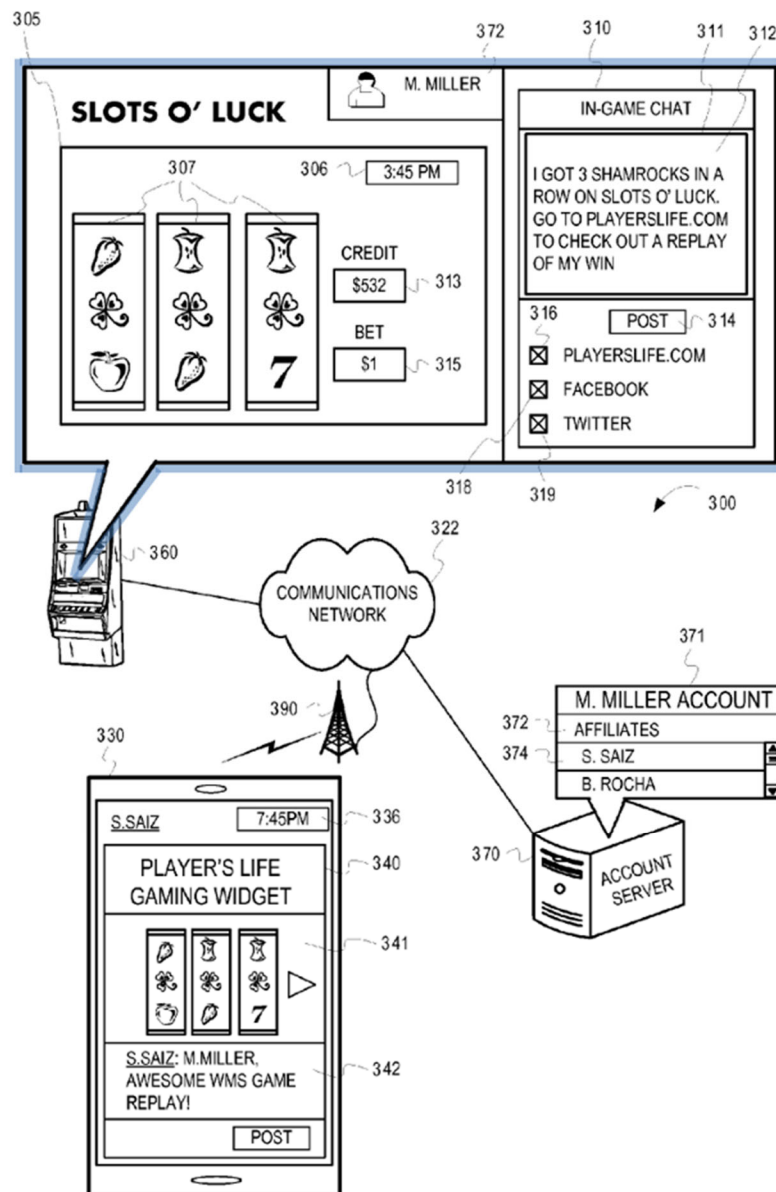


FIG. 3

304. Barclay '019 discloses that the *video gaming environment* is hosted on a *server* to one or more users. For example, “the *wagering game* machine 360 . . . communicate[s] with, and or receive communications with, a *gaming server*, such as with the *server 150 described in FIG. 1* and/or with the computer 113 described in FIG. 1 (e.g., via the communications network 322 and/or the communications network 122).” (EX1006, 9:19-24.) The *gaming server 150* is shown in FIG. 1 (below). (*See also* EX1006, 2:57-64.)

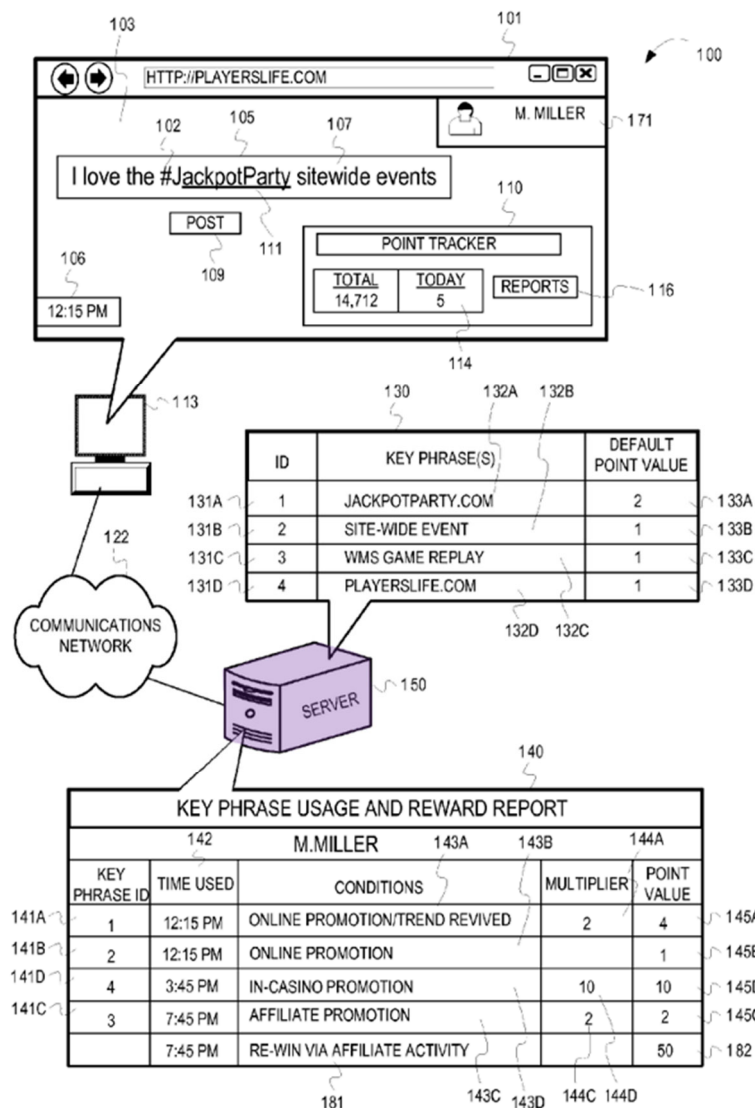


FIG. 1

305. Barclay '019's *gaming server* controls various aspects of the *video gaming environment*. FIG. 8 provides the architecture diagram of the wagering game system, which includes *wagering game server 850*. Referring to FIG. 8, “[t]he wagering game system architecture 800 can also include a *wagering game server 850* configured to *control wagering game content, provide random numbers, and communicate wagering game information, account information,*

and other information to and from a client 860. The *wagering game server 850* can include a content controller 851 configured to *manage and control content for the presentation of content* on the client 860. For example, the content controller 851 can *generate game results* (e.g., win/loss values), including win amounts, for games played on the client 860. The content controller 851 can *communicate the game results* to the client 860. The content controller 851 can also *generate random numbers* and provide them to the client 860 so that the client 860 can generate game results. The *wagering game server 850* can also include a content store 852 configured to *contain content to present* on the client 860.” (EX1006, 15:3-18; *see also id.*, 15:18-37, 19:17-31.)

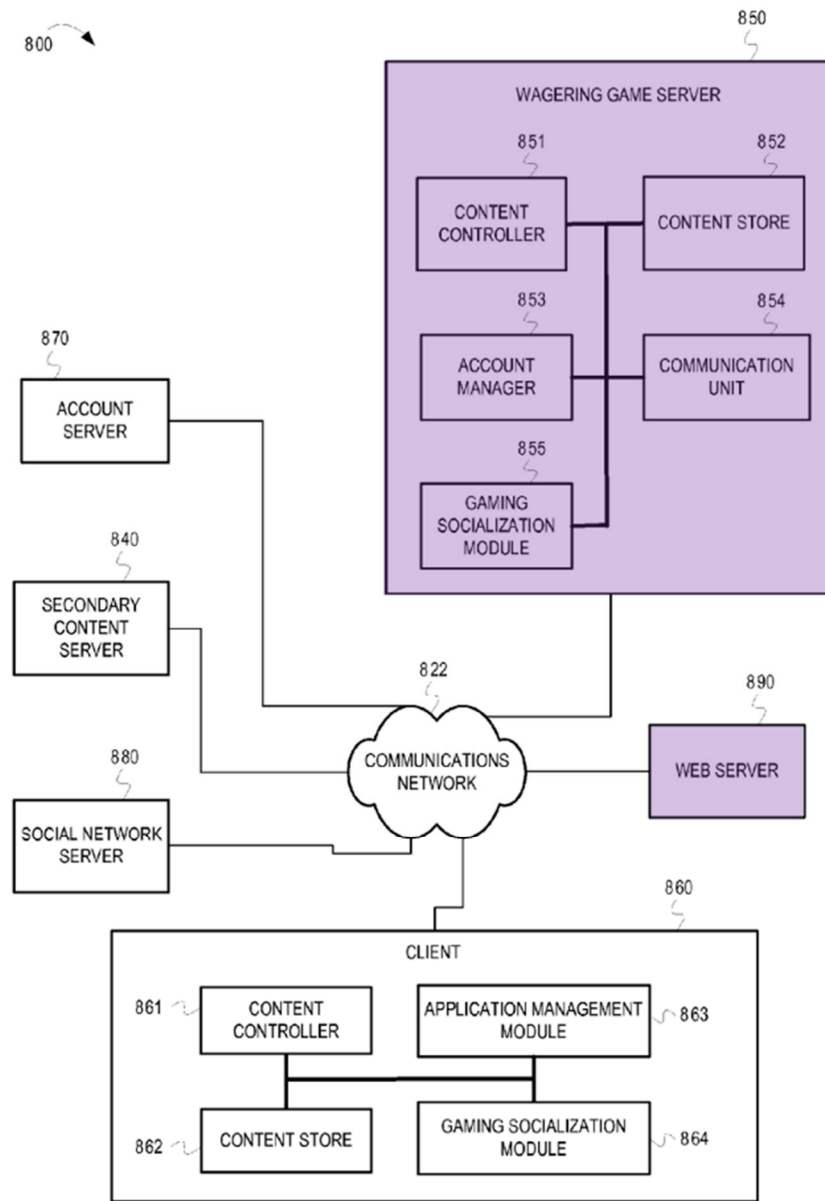


FIG. 8

306. Additionally or alternatively, Barclay '019's *video gaming environment* can also be hosted on *web server 890*. “The wagering game system architecture 800 can also include a *web server 890* configured to *control and present an online website that hosts wagering games*. The web server 890 can also be configured to present multiple wagering game applications on the client

860 via a wagering game website, or other gaming-type venue accessible via the Internet. The web server 890 can host an online wagering website and/or a social networking website.” (EX1006, 18:34-41.) Barclay ’019 states that these servers can be implemented using the same device. “Furthermore, the components shown may all be contained in one device, but some, or all, may be included in, or performed by, multiple devices, as in the configurations shown in FIG. 8 or other configurations not shown.” (*Id.*, 18:65-19:1.)

307. Barclay ’019 discloses providing a video gaming environment to one or more *users*. “*Any individual* with a personal computing device (e.g., a personal computer, a laptop, a personal digital assistant, a cell phone, etc.) can connect to the Internet and play wagering games.” (EX1006, 1:39-42.) In the depicted example in FIG. 3, the video gaming environment is provided to *M. Miller*. Barclay ’019 discloses a computer-implemented method for performing its operations. (*See, e.g.*, EX1006, claims 1-6, 21, 24, 20:24, 23:16.)

b. 1[A][1]: “providing access to the video gaming environment, by the server, to the one or more users via one or more user devices,”

308. Barclay ’019 discloses this element. As discussed above, Barclay ’019 provides a *video gaming environment* hosted on a *server* to one or more users. (*Supra* §IX.E.2.a.)

309. Barclay '019 further discloses the access to *video gaming environment* via one or more *user devices*. In FIG. 3, the wagering game machine 360 is an example “user device”. “The user can login to the *wagering game machine 360* via a player account 317, indicated via the player login console 372, and play the *wagering game 305* via a wagering game session.” (EX1006, 9:33-36.)

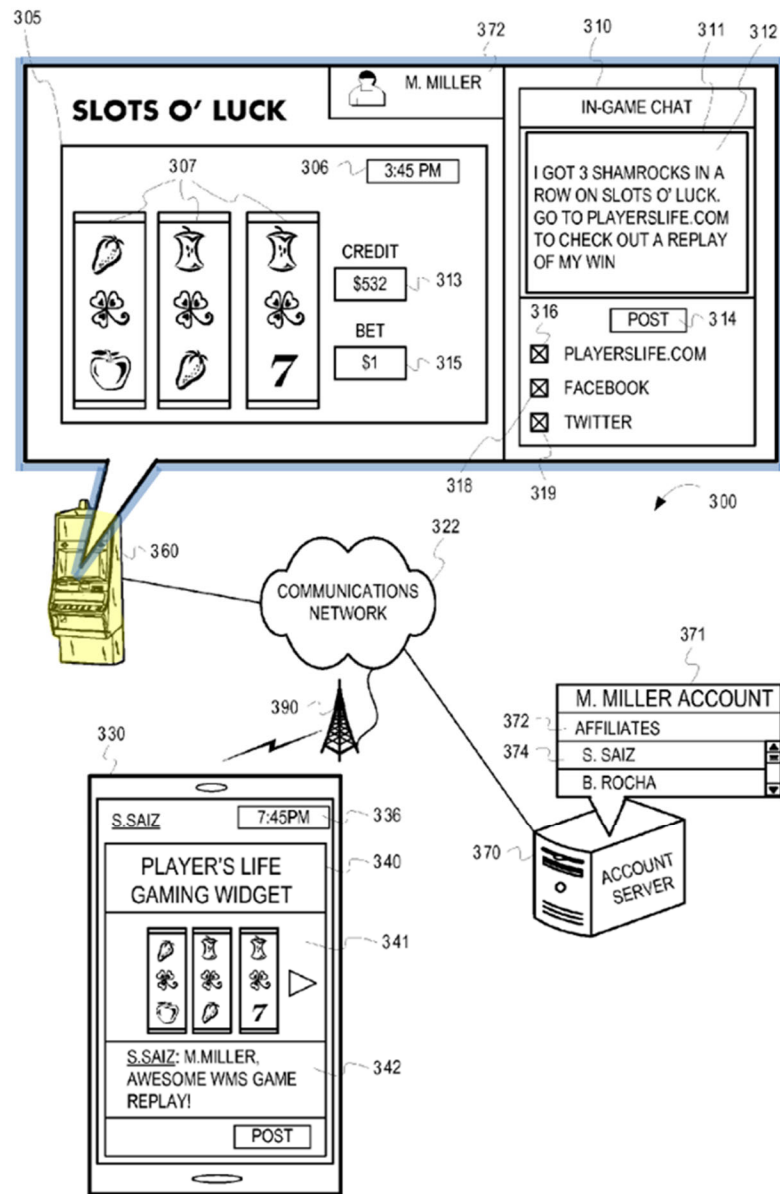


FIG. 3

310. Barclay '019 discloses many examples of *user devices*. With reference to the system architecture diagram FIG. 8, “[t]he wagering game system architecture 800 can also include the *client 860* configured to present wagering games and receive and transmit information to track and reward player activity. The client 860 can be *a computer system, a personal digital assistant (PDA), a*

cell phone, a laptop, a wagering game machine, or any other device or machine that is capable of processing information, instructions, or other data provided via the communications network 822.” (EX1006, 15:38-45; *see also id.* 19:8-16 (“the client 860 can take the form of a *wagering game machine*. Examples of wagering game machines can include *floor standing models, handheld mobile units, bar-top models, workstation-type console models, surface computing machines*, etc. Further, wagering game machines can be primarily dedicated for use in conducting wagering games, or can include non-dedicated devices, such as *mobile phones, personal digital assistants, personal computers*, etc.”), 19:50-24:54, FIGS. 9-12.)

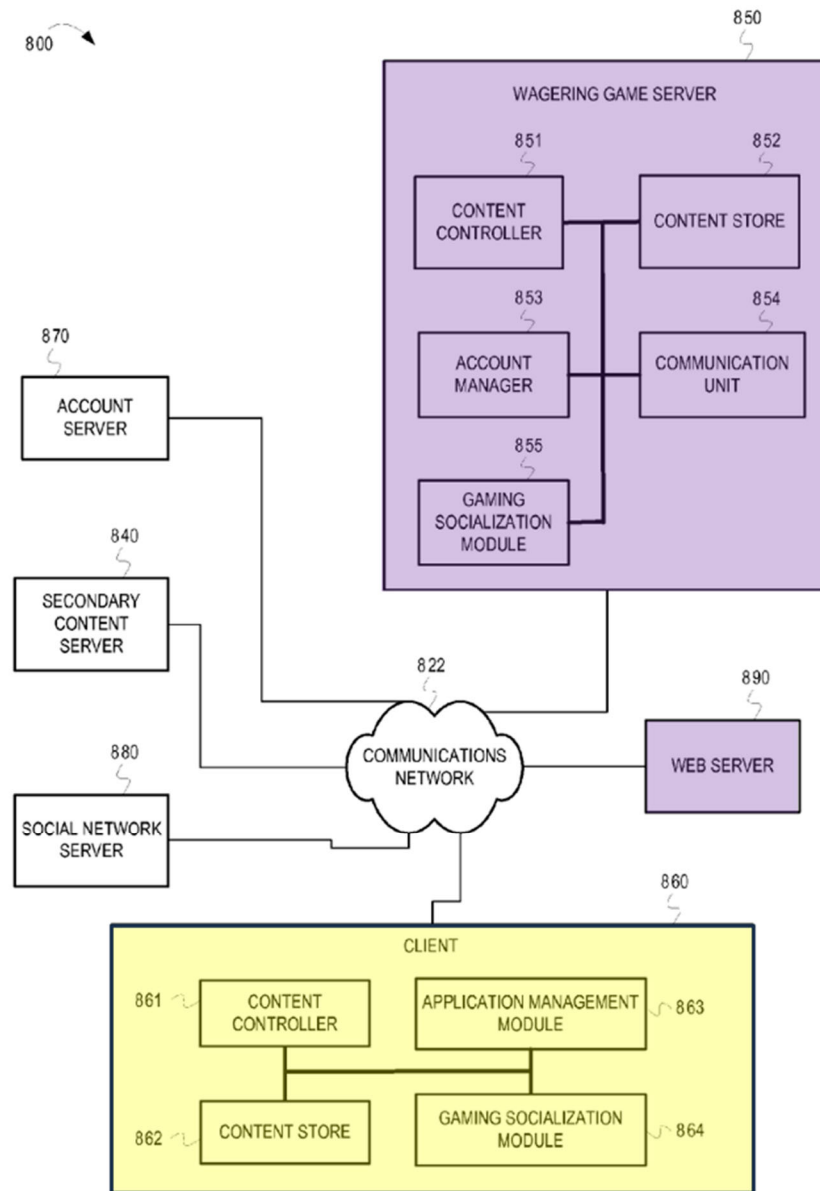
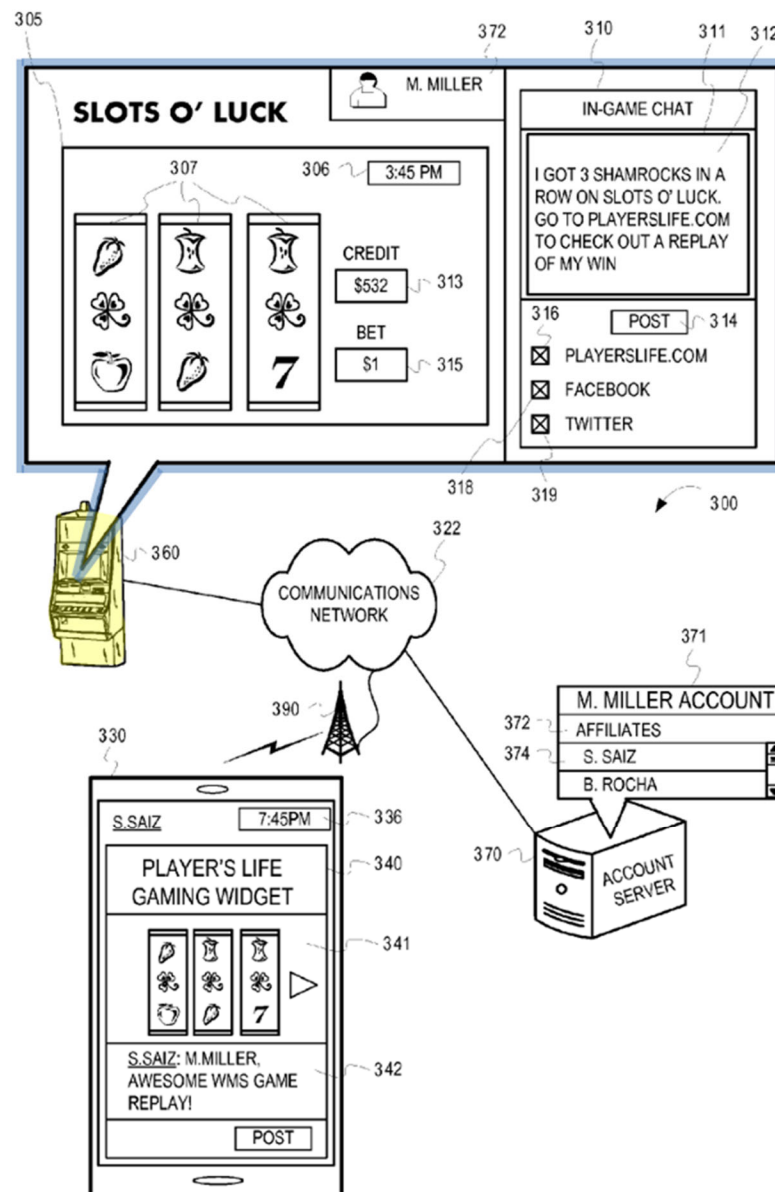


FIG. 8

311. Barclay '019 discloses providing access to the *video gaming environment*, by the *server*, to the one or more users via one or more user devices. FIG. 3 shows a user (M. Miller) has access to the *wagering game* via the wagering game machine 360. The access is provided by “a *gaming server*, such as with the *server 150 described in FIG. 1*,” which controls many aspects of the wagering

game. (EX1006, 9:21-22; *supra* §IX.E.2.a; *see also* EX1006, 19:24-28 (“the *wagering game server* can perform functions such as determining game outcome or managing assets, while the clients can present a graphical representation of such outcome or asset modification to the user (e.g., player).”).)



312. More generally, Barclay '019's server provides access and controls many aspects of the wagering game. The "*wagering game server 850* [is] configured to *control wagering game content, provide random numbers, and communicate wagering game information, account information, and other information* to and from a *client 860*. The *wagering game server 850* can include a content controller 851 configured to *manage and control content for the presentation of content* on the *client 860*. For example, the content controller 851 can generate game results (e.g., win/loss values), including win amounts, for games played on the client 860. The content controller 851 can communicate the game results to the client 860. The content controller 851 can also generate random numbers and provide them to the client 860 so that the client 860 can generate game results. The wagering game server 850 can also include a content store 852 configured to contain content to present on the client 860. The *wagering game server 850* can also *include an account manager 853 configured to control information related to player accounts*. For example, the account manager 853 can communicate wager amounts, game results amounts (e.g., win amounts), bonus game amounts, etc., to the account server 870. The *wagering game server 850* can also include a communication unit 854 configured to *communicate information to the client 860 and to communicate with other systems, devices and networks*. The *wagering game server 850* can also include a gaming socialization module 855

configured to *track activities performed via player input* including, but not limited to, gaming promotions, social communication publishing, affiliate gaming activities, wagering and redeeming player points, sharing status, etc. The gaming socialization module 855 is further configured to award player activity including, but not limited to, awarding points of varying degrees of values, tracking conditions for player promotions and social communication publishing, awarding affiliate gaming activities, awarding point wagers, etc.” (EX1006, 15:3-37.)

c. 1[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

313. Barclay '019 discloses one or more user devices (*e.g.*, “wagering game machine 360”) including a user interface configured to display the *video gaming environment*.

314. FIG. 3 depicts that the wagering game machine 360 includes a user interface that displays the *video gaming environment*. “The user can login to the *wagering game machine 360* via a player account 317, indicated via the player login console 372, and play the *wagering game 305* via a wagering game session.” (EX1006, 9:33-36.) “The *wagering game 305* may be a slot game that includes reels 307, a bet meter 315, a credit meter 313, etc.” (*Id.*, 9:32-33.)

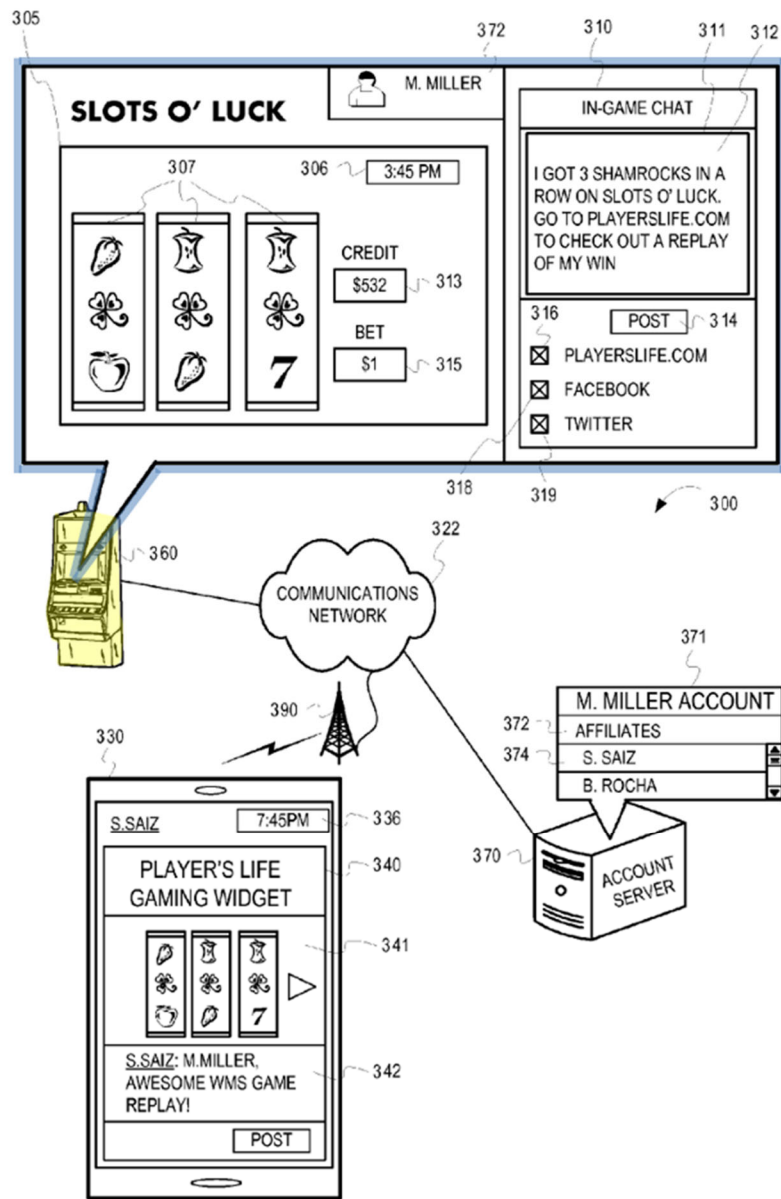


FIG. 3

315. More generally, Barclay '019 discloses that various user devices (“client 860”) have user interfaces to display the video gaming environment. “The wagering game system architecture 800 can also include the *client 860* configured to *present wagering games*” (EX1006, 15:38-39.) “The client 860 can include a content controller 861 configured to manage and control content and

presentation of content on the client 860. The client 860 can also include a content store 862 configured to contain ***content to present on the client 860.*** The client 860 can also include an application management module 863 configured to manage multiple instances of gaming applications.” (*Id.*, 15:45-52; *see also id.*, 15:63-16:4.) “For example, the application management module 863 can perform ***rendering operations for presenting applications*** of varying platforms, formats, environments, programming languages, etc.” (*Id.*, 16:52-55.)

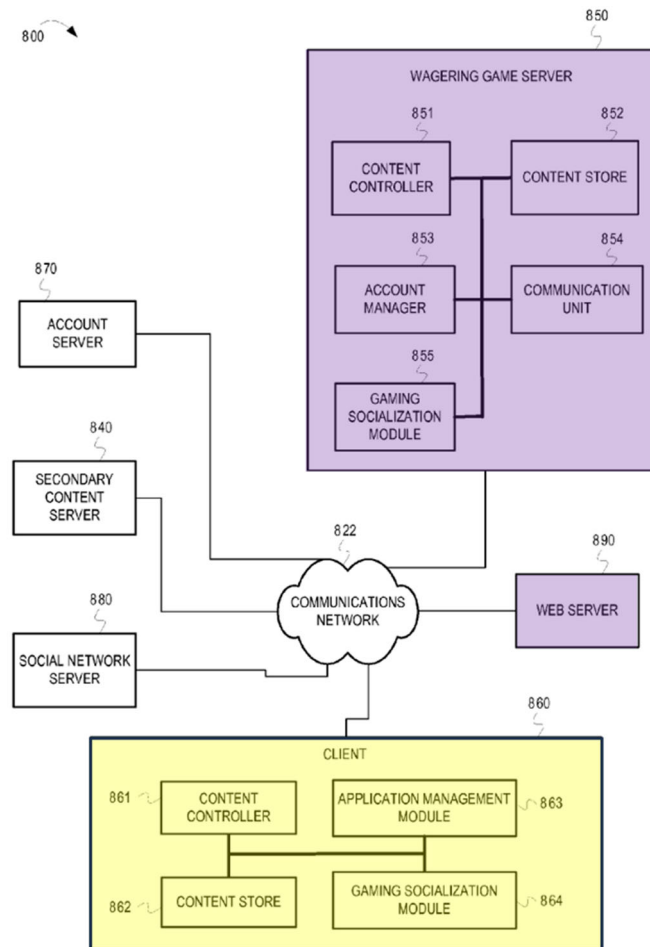


FIG. 8

316. “The wagering game server 850 can include a content controller 851 configured to *manage and control content for the presentation of content* on the *client 860* . . . The wagering game server 850 can also include a content store 852 configured to contain *content to present on the client 860*.” (EX1006, 15:7-10, 15:16-18.)

d. 1[B]: “transmitting, by the server, a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

317. Barclay '019 discloses this element.

318. First, Barclay '019 discloses a *content item* representing an event associated with a *first user* in the video gaming environment. In FIG. 3, the *content item* includes a gameplay result and/or a message. “During the wagering game session (e.g., at 3:45 PM, as indicated via the clock 306) *the player [M. Miller]* can receive a specific gaming result (e.g., a random result of *three shamrocks in a row* via a combination of symbols on the reels 307). In response to the gaming result, an in-game chat application 310 automatically inserts a *message 312* into a message area 311 of the in-game chat application 310. The *message 312* describes the gaming activity.” (EX1006, 9:40-47.) Here, both the *gameplay result* and *message 312* are *content items* representing an event (*i.e.*, “three shamrocks in a row”) associated with a *first user* (*i.e.*, M. Miller) in the video gaming environment.

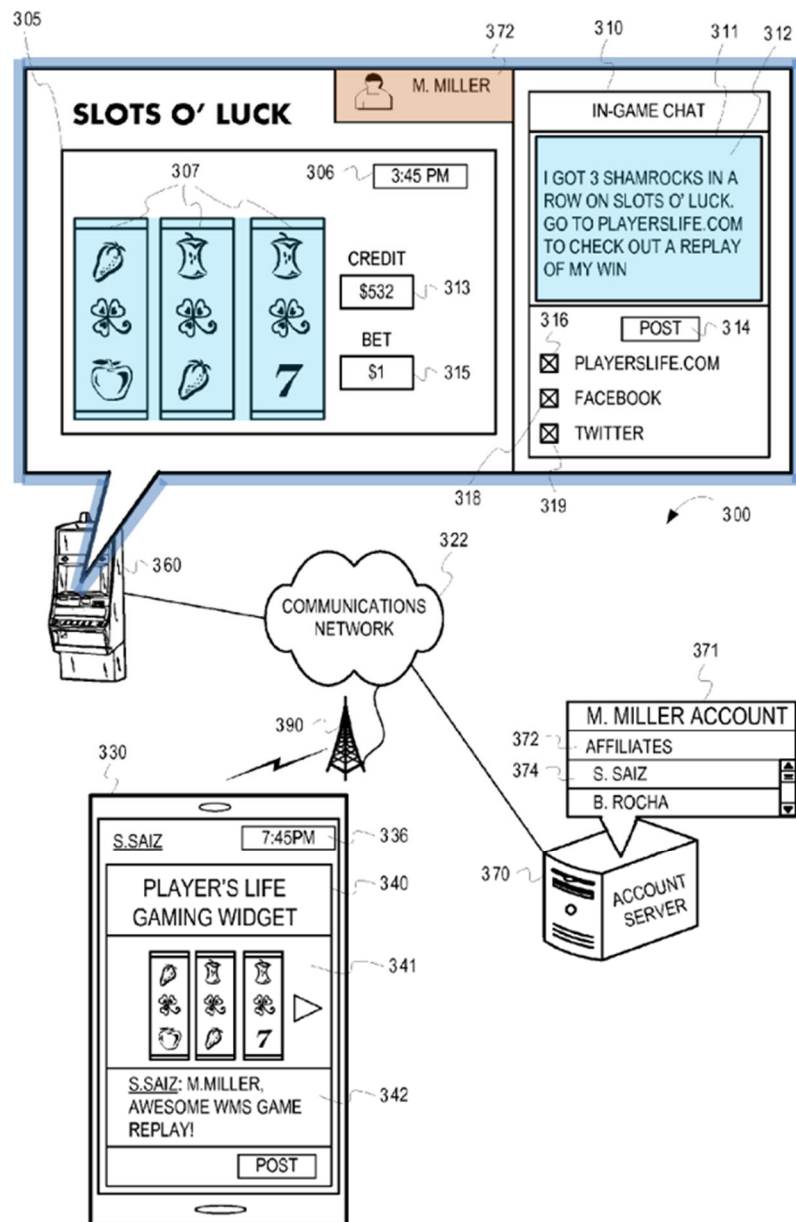


FIG. 3

319. Second, Barclay '019 discloses a *social online service*. FIG. 3 shows many social online services that the player can post the content item to, including *PlayersLife.com*, *Facebook*, and *Twitter*. Barclay '019 describes *PlayersLife.com* as a “social networking website.” (EX1006, 2:67; *see also id.*, 6:26-31.)

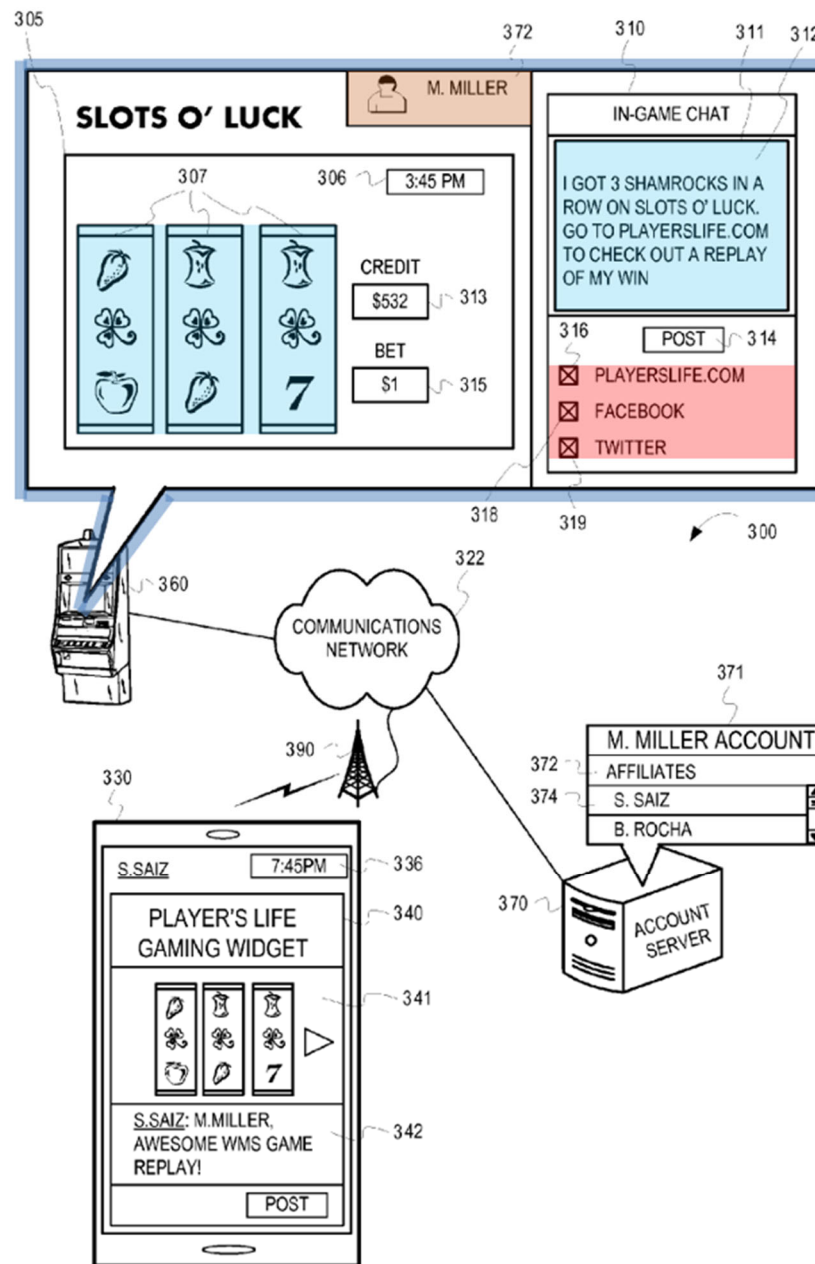


FIG. 3

320. Barclay '019 discloses other examples of *social online service*. “For example, a user posts a social networking message via a social communication application (e.g., a user updates a profile status via *FaceBook®.com*, a user submits a Tweet via *Twitter.com*, a user posts a blog or forum entry via

PlayersLife®.com, a user submits a chat entry, a user sends an email, etc.).”

(EX1006, 6:26-31.)

321. Third, Barclay '019 discloses transmitting the *content item* to the *social online service*. FIG. 3 shows that the *gameplay result* (three shamrocks in a row) is transmitted to *social network server* such that it can be displayed on a “social network website” *Player’s Life*. (EX1006, 10:4, 13:5.)

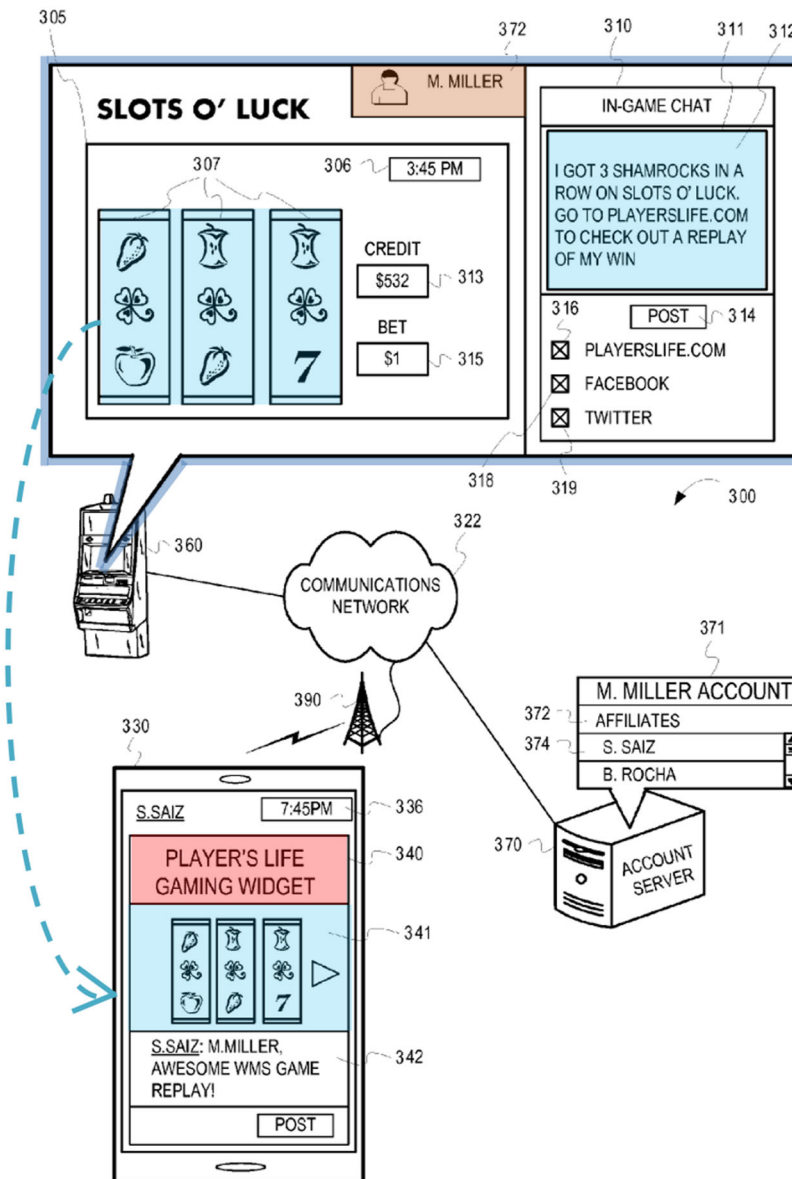


FIG. 3

322. The other *content item*, message 312, is also transmitted to the social online service. Specifically, “[a] player can activate the post control 314 (e.g., via button press, via touch-screen, etc.) which publishes the *message 312* to one or more *social networking venues* (e.g., to *Playerslife.com*, to *Facebook.com*, to *Twitter.com*, etc.) as indicated by selection controls 316, 318, and 319 (selection

controls 315, 318, and 319 can instead be included in a user's profile settings).”
(EX1006, 9:48-54; *see also id.*, 3:1-24.)

323. Barclay '019 discloses or at least suggests that the transmission of the content item to the **social online service** is by the **server**. Referring to FIG. 8, the “wagering game system architecture 800” includes the “**wagering game server 850**” and the “**social network server 880**.” Not only does the **wagering game server 850** “manage and control **content for the presentation** of content on the [wagering game machine]” as discussed above, “[t]he **wagering game server 850** can also include a gaming socialization module 855 configured to track activities performed via player input including, but not limited to, gaming promotions, **social communication publishing**, affiliate gaming activities, wagering and redeeming player points, **sharing status**, etc.” (EX1006, 15:3-10, 15:27-32, 17:8-12, 18:17-18; *supra* §§IX.E.2.a-IX.E.2.b.)

324. Thus, a POSITA would have found it obvious that the **wagering game server 850** has the **content items** because the **wagering game server 850** determines the **wagering game results**, controls the game interface (which contains the **message** and the “Post” button), and tracks publishing of the social communication publishing (*e.g.*, when the user clicks on the “Post” button).

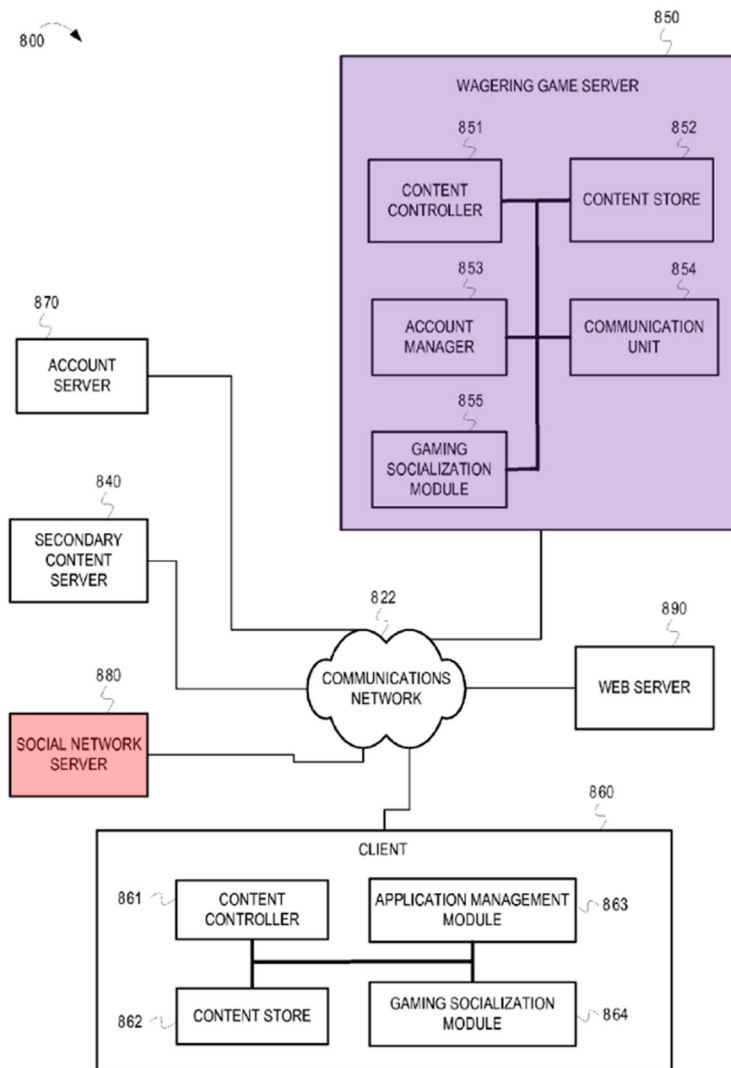


FIG. 8

325. Further, the “**social network server 880** [is] configured to host social networking network accounts, provide social networking content, control social networking communications, store associated social contacts, etc. In some embodiments, the **social network server 880** can *provide one or more social networking communication mechanisms that publish (e.g., post, broadcast, etc.) a message to a mass* (e.g., to multiple people, users, social contacts, accounts,

etc.). The social networking communication mechanism can publish the message to the mass simultaneously. Examples of the published message may include, but not be limited to, a blog post, a mass message post, a news feed post, a profile status update, a mass chat feed, a mass text message broadcast, a video blog, a forum post, etc. Multiple users and/or accounts can access the published message and/or receive automated notifications of the published message.” (EX1006, 18:17-33; *see also id.*, 2:64-3:14, 6:33-44.)

326. Thus, a POSITA would have found it obvious that the *wagering game server 850* transmits the *content items* to the *social network server 880* to publish.

327. Barclay '019 states that its *social network server* includes third-party social network services, such as Facebook and Twitter. In this case, it would have been obvious that Barclay '019's *wagering game server 850* would transmit the *content items*, which are generated by the wagering game, to the *social network server 880* (e.g., *Facebook servers or Twitter servers*) to publish. The transmission would be done via the communications network 822. (EX1006, 18:57-59 (“[e]ach component shown in the wagering game system architecture 800 is shown as a separate and distinct element connected via a communications network 822.”).)

328. Barclay '019 also states that its architecture is flexible. For example, “some functions performed by one component could be performed by other

components. For example, the *wagering game server 850* can also be configured to perform functions of the secondary content server 840, the *social network server 880*, the web server 890, and other network elements and/or system devices.”

(EX1006, 18:60-65.) In that configuration, it would have been obvious to a POSITA that the *wagering game server 850* would still transmit the *content item* to its component corresponding to the *social network server 880* in order for the *social network server 880* to publish the social post.

e. 1[C]: “receiving, by the server, an interaction via the social online service of a second user with the content item on the social online service;”

329. Barclay '019 discloses this element. First, Barclay '019 discloses an *interaction* via *the social online service* of a *second user* with the *content item* on the social online service.

330. In a first example, a type of interaction is a *comment* on the *gameplay result* by a *second user*, as shown in FIG. 3.

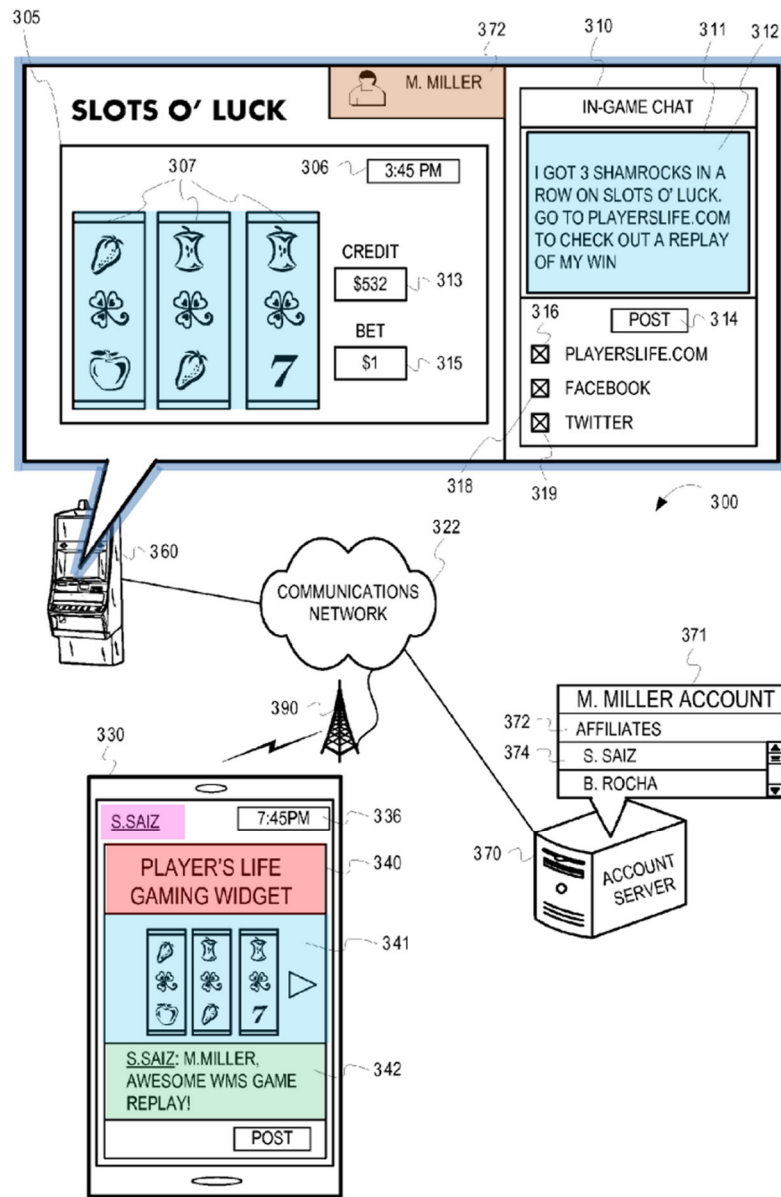


FIG. 3

331. “Referring back to FIG. 3, a social contact of the first user (e.g., *a second user, S. Saiz*, who is a friend of the first user, Marcus Miller), may view a publication of the message 312 via the mobile device 330 using a gaming widget

340⁴ installed on the mobile device 330. The account server 370 links the first user, Marcus Miller, via the player account 371, to other accounts, or affiliates 372, one of which is the user account 374 for the second user, S. Saiz. The second user views a replay of *the player's achievement* (e.g., S. Saiz views at 7:45 PM, as indicated by the clock 336, the replay 341) and *posts a comment 342* (e.g., via the post control 343).” (EX1006, 10:1-11.)

332. In a second example, a type of interaction is a *click* on the *message 312* by the *second user*. “In some embodiments, if enough *users click on the post of the message 312*, or if the first user can get enough other users to register for an online account to see the posted message 312, the first user may ‘re-win’ the wagering game win.” (EX1006, 10:30-35.)

333. In a third example, Barclay ’019 discloses that the social post can contain a *link*, which can be *activated* by the *second user*. “[T]he server 150 can detect that *a link 111 included in the message 107* is activate by *users* (e.g., affiliated users, total users, a combination, etc.). The link 111 is to an online

⁴ The disclosure of Barclay uses the term “gaming widget” to cover “an application on a webpage [] of a social network website (e.g., Facebook.com) where the presentation of the webpage [] is associated with a social network session for a social network account via a web browser [].” (EX1006, 13:4-8.)

gaming venue, such as Jackpotparty.com®. The server 150 can track a number of times that other users *activate* the *link 111* and visit the website. The sever 150 can award points that vary in value based on the number of activated links to the online gaming venue (e.g., the server 150 can increase any of the multipliers 144A, 144C, or 144D, or generate other multipliers, based on a number of links that were activated via the message 107 after the message 107 was published).” (EX1006, 5:14-25.) This description corresponds to FIG. 1, where the social post is generated on PlayersLife.com rather than the wagering game. Nevertheless, Barclay ’019 is clear that FIGS. 1-3 can be the same system. (EX1006, 6:19-22 (“[t]his description will refer to FIGS. 1 and 3 in conjunction with FIG. 2. In other words, FIGS. 1 and 3 help illustrate the flow of FIG. 2 according to some embodiments.”); 9:8-12 (“FIG. 3 is an illustration of additional tracking and rewarding of social communications associated with gaming, according to some embodiments. FIG. 3 helps illustrate some examples of embodiments described in FIG. 2, and also refers back to FIG. 1.”).) Thus, it would have been obvious to a POSITA that a link would be embedded in the social post in FIG. 3, and Barclay ’019 would track the activation (*e.g.*, click) of such a link.

334. In a fourth example, a type of interaction is *viewing* of the *gameplay result* by the *second user*. “The *second user views* a replay of the *player's achievement* (e.g., *S. Saiz views* at 7:45 PM, as indicated by the clock 336, the

replay 341) and posts a comment 342 (e.g., via the post control 343).” (EX1006, 10:8-12.) Barclay ’019 states that “the server 150 may also provide an additional reward because the second user *viewed* the gaming replay 341.” (EX1006, 10:24-26.)

f. 1[D]: “determining, by the server, an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

335. Barclay ’019 discloses this element, specifically determining, by the *server*, an *influence* to the video gaming environment based on the *interaction*.

336. In the first example, the interaction is a *comment* on the *gameplay result* by a second user, as shown in FIG. 3. (*Supra* §IX.E.2.e.) Based on the appearance of keywords in the *comment* (“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”) to first and second users. “The second user views a replay of the player’s achievement (e.g., S. Saiz views at 7:45 PM, as indicated by the clock 336, the replay 341) and *posts a comment 342* (e.g., via the post control 343). The comment 342 includes the key phrase 132C (i.e., the phrase ‘WMS game replay’). The *server 150*, for example, may award the second user (e.g., via user account 374) *the default point value 133C for the usage of the key phrase 132C.*” (EX1006, 10:8-16.)

337. Barclay ’019 discloses that the default point values can be multiplied by a multiplier under certain conditions by analyzing the comment. To calculate

the final reward, “the *server 150* specifies a multiplier 144C, because of the affiliate relationship between the first user and the second user, and because the second user commented (e.g., via the gaming widget 340) about content generated via the first user's gaming activity (e.g., the message 312 published during the first user's wagering game session).” (*Id.*, 10:16-23.)

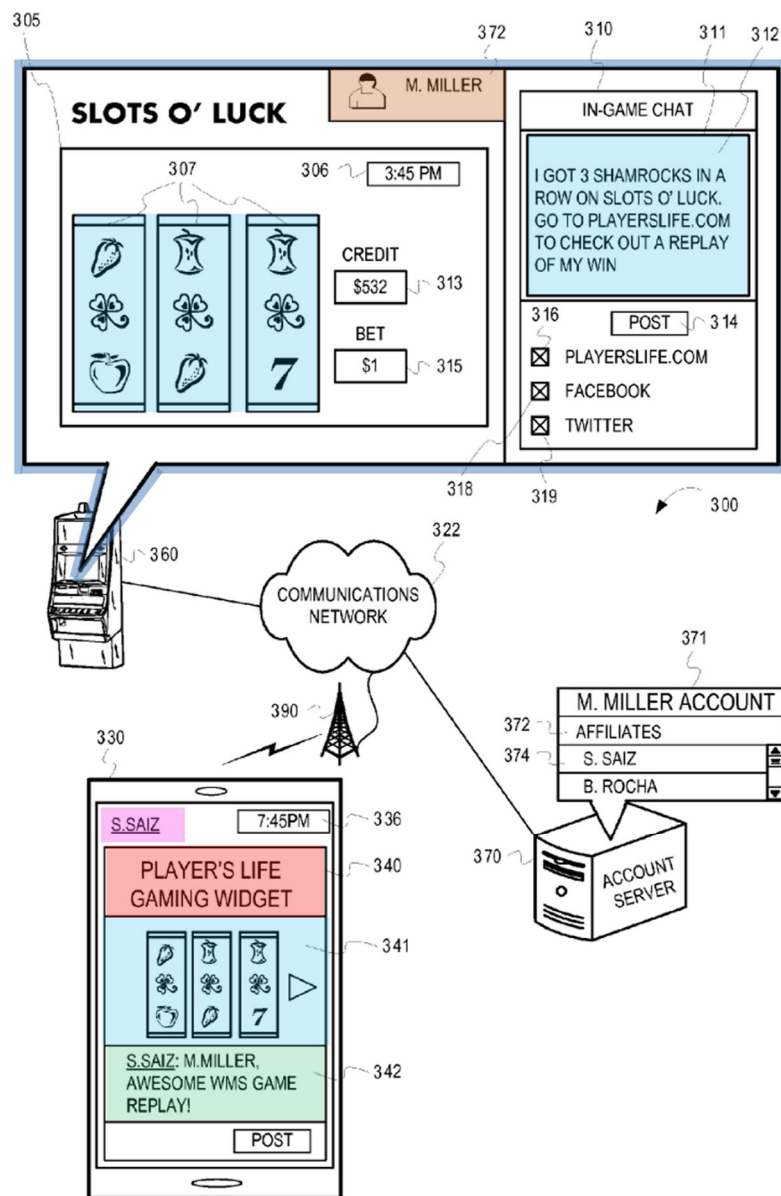


FIG. 3

338. Barclay '019 describes how the server determines the award based on keywords in a message such as *comment 342*. “[T]he system can *parse the message into a plurality of words, compare the plurality of words to a library of promotional words and phrases* stored on a wagering game server, and detect that at least one of the plurality of words is equivalent to, or substantially similar to, one of the promotional words or phrases. . . .” (EX1006, 6:58-63.) For example, the *list 130* in FIG. 1 shows predefined key phrases and their corresponding rewards. “[T]he *list 130* includes at least four key phrases: key phrase 132A (‘Jackpotparty.com’), key phrase 132B (‘site-wide event’), key phrase 132C (‘WMS game replay’), and key phrase 132D (‘Playerslife.com’).” (*Id.*, 3:37-40.) “Each of the key phrases 132A-132D also include award values, such as default point values 133A, 133B, 133C, and 133D (‘133A-133D’).” (*Id.*, 3:52-55.) Referring to FIG. 1, Barclay '019 states that “the *server 150* can parse the *message* [] and search for first phrases (e.g., words or combinations of words) that match, or are substantially similar to, second phrases from a group, or library, of key words or phrases, as indicated in a *list 130*.” (*Id.*, 3:32-36; *see also id.*, 3:49-58, 4:21-67, 6:55-7:49.) A POSITA would have understood that *comment 342* in FIG. 3 would be parsed and searched in a similar manner.

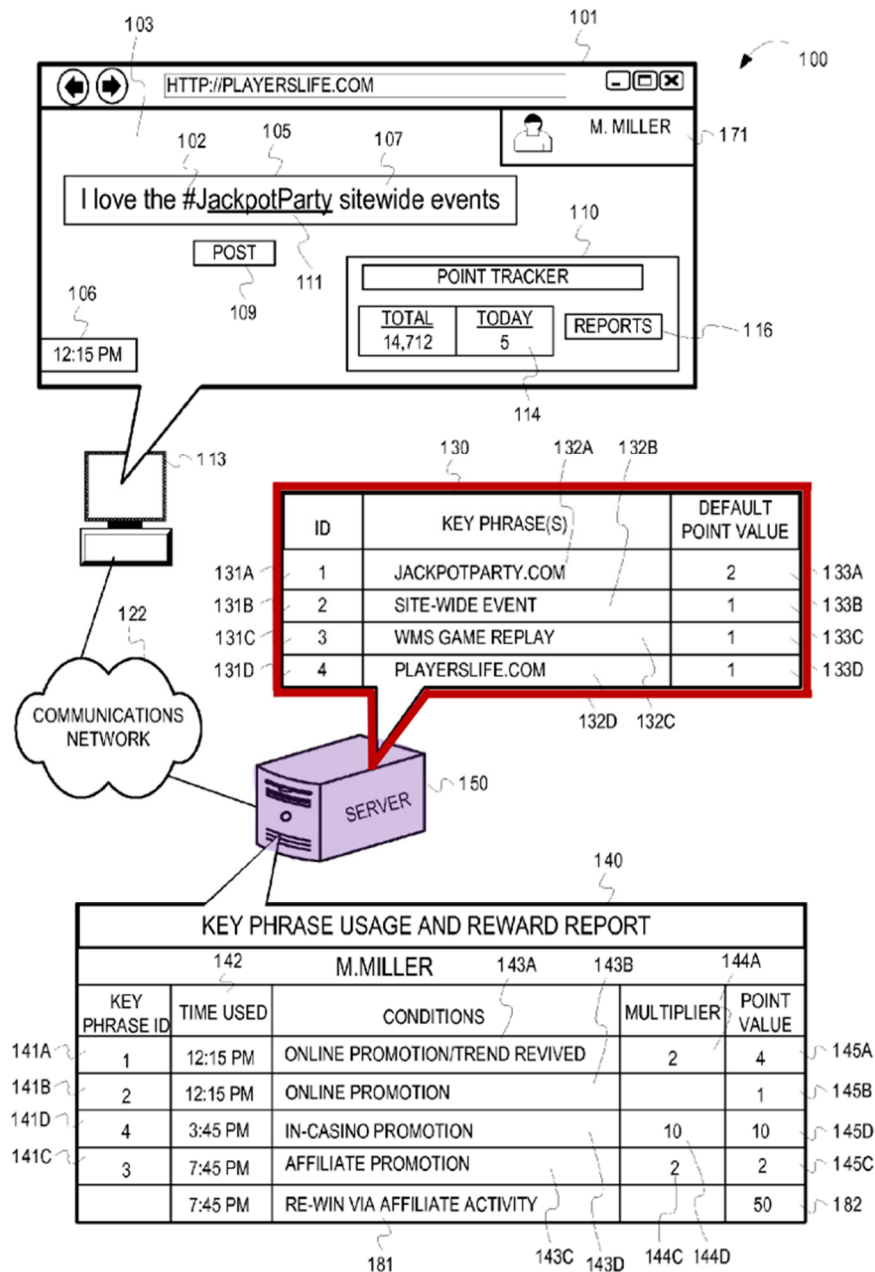


FIG. 1

339. Barclay '019 discloses many conditions associated with a *comment* (“*interaction*”) that can be analyzed by the system to determine *amount of reward points* (“*influence*”). “For example, the condition may be that the promotional expression is substantially similar to a word or phrase stored in a key phrase

library, that the promotional expression fits a specific form, or that the promotional expression is submitted via a specific website. The condition can be associated with the message, the transmission or receipt of the message, the comparison of the message to promotional phrases, the promotional phrases, etc. In some embodiments, the system can detect that a property associated with publication of the message satisfies the condition. For example, the system can detect that the message is published within a specific time period, detect that the one of the plurality of key phrases causes a topic to trend upward for the social networking website/application, detect that the message is republished via an affiliate user account, etc.” (EX1006, 7:34-49; *see also id.*, 8:5-9:7.) “[T]he system provides an award in satisfaction of a condition associated with the promotional expression.” (*Id.*, 7:32-34.)

340. In the second example, the interaction is a *click* on the *message 312* by the second user. (*Supra* ¶IX.E.2.e.) Based on the *click* (“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”) to users. “In some embodiments, if enough users *click on* the post of *the message 312*, or if the first user can get enough other users to register for an online account to see the posted message 312, the first user may ‘*re-win*’ the *wagering game win*. Further, the users who register to see a post of the message 312 can possibly ‘*win*’ that *win value* that the first user won, or win some other award (e.g., additional points).”

(EX1006, 10:30-37.) It would have been obvious that the influence is determined by the server.

341. In the third example, Barclay '019 discloses that the social post can contain a *link*, which can be *activated* by the second user. Based on the *activation* ("*interaction*"), Barclay '019's *server* determines the *amount of reward points* ("*influence*") to users. "[T]he server 150 can detect that *a link 111 included in the message 107* is *activate* by users (e.g., affiliated users, total users, a combination, etc.). The link 111 is to an online gaming venue, such as Jackpotparty.com®. The server 150 can track a number of times that other users *activate* the *link 111* and visit the website. The sever 150 can *award points that vary in value based on the number of activated links to the online gaming venue* (e.g., the server 150 can increase any of the multipliers 144A, 144C, or 144D, or generate other multipliers, based on a number of links that were activated via the message 107 after the message 107 was published)." (EX1006, 5:14-25.) This description corresponds to FIG. 1, but it would have been obvious to a POSITA that a link would be embedded in the social post in FIG. 3, and Barclay '019 would track the activation (e.g., click) of such a link and provide reward points accordingly. (*Supra* §IX.E.2.e.)

342. In the fourth example, the interaction is *viewing* of the *gameplay result* by the second user. (*Supra* §IX.E.2.e.) Based on the *viewing*

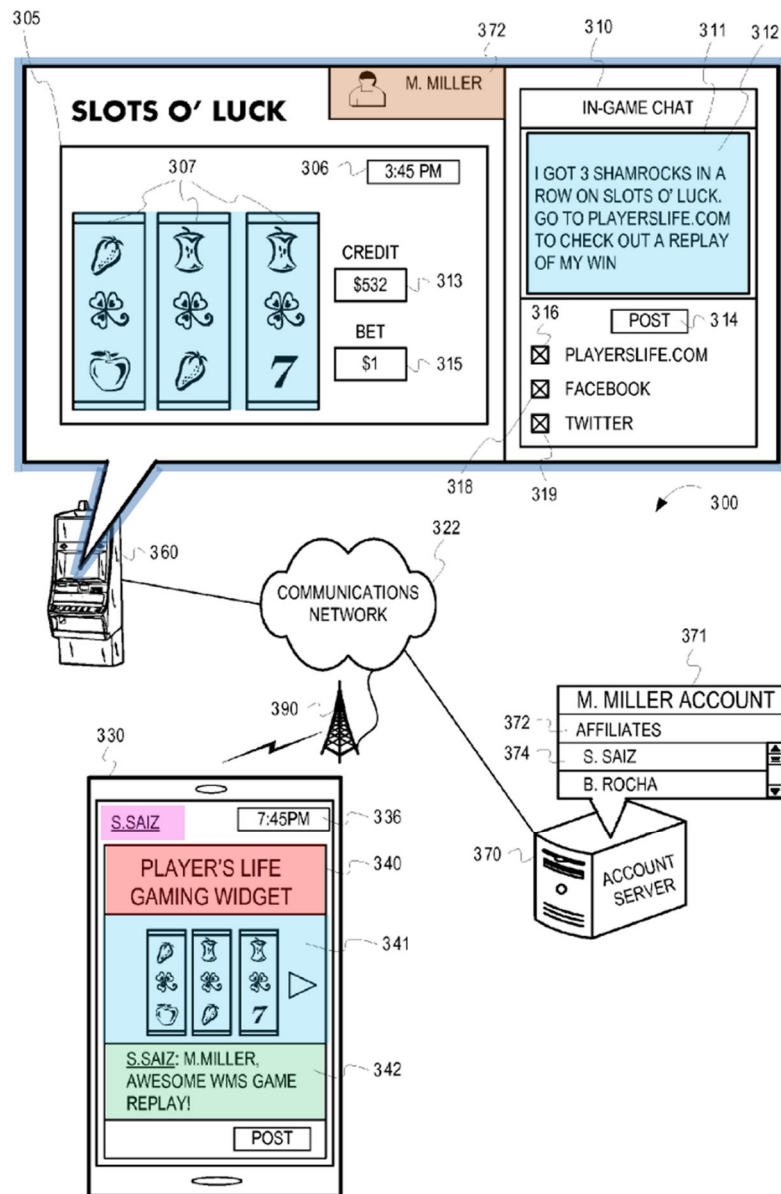
(“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”). “[T]he *server 150* may also provide an *additional reward* because the second user *viewed* the gaming replay 341. For instance the first user receives a *bonus reward* in the wagering game 305 and/or receives an *award of points* (e.g., wins a total award value 182 in the report 140 in FIG. 1, because the condition 181 indicated that a sufficient number of affiliates, such as S. Saiz, *viewed* the *game replay 341*).” (EX1006, 10:24-30.)

g. 1[E]: “and modifying, by the server, the video gaming environment based on the influence.”

343. Barclay ’019 discloses *modifying*, by the *server*, the video gaming environment based on the *influence*.

344. In the first example, based on the appearance of keywords in the *comment* (“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”) and *rewards* first and second users accordingly (“*modifying video gaming environment*”). “The *comment 342* includes the key phrase 132C (i.e., the phrase ‘WMS game replay’). The *server 150*, for example, may *award* the second user (e.g., via user account 374) *the default point value 133C for the usage of the key phrase 132C*.” (EX1006, 10:11-15.) Barclay ’019 discloses that the default point values can be multiplied by a multiplier under certain conditions by analyzing the comment. To calculate the final reward, “the *server 150* specifies a

multiplier 144C, because of the affiliate relationship between the first user and the second user, and because the second user commented (e.g., via the gaming widget 340) about content generated via the first user's gaming activity (e.g., the message 312 published during the first user's wagering game session).” (*Id.*, 10:16-23.)



345. As discussed above, Barclay '019 discloses many conditions that can be analyzed by the system to determine an award given a *comment* (“*interaction*”), and *modifies* the video gaming environment accordingly. (*Supra* §IX.E.2.e.) “The system *provides an award* in satisfaction of a condition associated with the promotional expression.” (EX1006, 7:32-34.) “The system can *provide the award* to incentivize and/or *reward* the use of promotion expressions/key phrases to a degree and/or value associated with the condition. For instance, the system can incentivize users with awards to keep up a communication trend. In some embodiments, *the awards can be in-session encouragement, benefits, content, displays*, etc. For instance, the system can *indicate a user's promotional efforts via a meter or a leaderboard*. In some embodiments, *the awards are persistent objects, such as virtual assets (e.g., trophies, accomplishments, etc.) or a number of points (e.g., loyalty or achievement points)* associated with a wagering game venue. The system can transfer and store the awards via a player account associated with the wagering game venue. The player account may be linked to a social networking account associated with a social networking website or social communication application.” (*Id.*, 7:50-65; *see also id.*, 3:59-4:67.) These points have a variety of use cases in the video gaming environment. (EX1006, 13:62-14:26.)

346. In the second example, based on the *click* (“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”) to users and *rewards* users accordingly (“*modifying video gaming environment*”). “In some embodiments, if enough users *click on* the post of *the message 312*, or if the first user can get enough other users to register for an online account to see the posted message 312, the first user may ‘*re-win*’ *the wagering game win*. Further, the users who register to see a post of the message 312 can possibly ‘*win*’ *that win value* that the first user won, or *win* some *other award (e.g., additional points)*.” (EX1006, 10:30-38.)

347. In the third example, based on the *activation* (“*interaction*”), Barclay ’019’s *server* determines the *amount of reward points* (“*influence*”) to users and *rewards* users accordingly (“*modifying video gaming environment*”). “[T]he *server* 150 can detect that *a link 111 included in the message 107* is *activate* by users (e.g., affiliated users, total users, a combination, etc.). The link 111 is to an online gaming venue, such as Jackpotparty.com®. The server 150 can track a number of times that other users *activate* the *link 111* and visit the website. The *server 150* can *award points that vary in value based on the number of activated links to the online gaming venue* (e.g., the server 150 can increase any of the multipliers 144A, 144C, or 144D, or generate other multipliers, based on a number of links that were activated via the message 107 after the message 107 was

published).” (EX1006, 5:15-25.) As discussed above, it would have been obvious to a POSITA that a link would be embedded in the social post in FIG. 3, and Barclay ’019 would track the activation (*e.g.*, click) of such a link and provide reward points accordingly. (*Supra* §IX.E.2.e.)

348. In the fourth example, based on the **viewing** (“**interaction**”), Barclay ’019’s **server** determines the **amount of reward points** (“**influence**”) and **rewards** users accordingly (“**modifying video gaming environment**”). “[T]he **server 150** may also **provide** an **additional reward** because the second user **viewed** the gaming replay 341. For instance the first user **receives** a **bonus reward** in the wagering game 305 and/or receives an **award of points** (*e.g.*, wins a total award value 182 in the report 140 in FIG. 1, because the condition 181 indicated that a sufficient number of affiliates, such as S. Saiz, **viewed** the **game replay 341**).” (EX1006, 10:24-30.)

349. Barclay ’019 discloses that all the modifications above are done by the **wagering game server 850** and/or **web server 890**. For example, “the **wagering game server** can perform functions such as determining game outcome or managing assets[.]” (EX1006, 19:24-26.) Further, “[t]he **web server 890** can further be configured to award player activity including, but not limited to, awarding points of varying degrees of values, tracking conditions for player promotions and social communication publishing, awarding affiliate gaming

activities, awarding point wagers, etc.” (EX1006, 18:51-56; *see also id.*, 15:3-37, 18:34-56, 19:17-31.)

3. Claim 2: “The method of claim 1, wherein the interaction of the second user with the content item includes a comment including a keyword.”

350. Barclay '019 discloses this claim. As shown in FIG. 3, the *interaction* of the *second user* (*S. Saiz*) with the *content item* (*replay 341*) includes a *comment*: “M. MILLER AWESOME WMS GAME REPLAY!” (*Supra* §IX.E.2.e.)

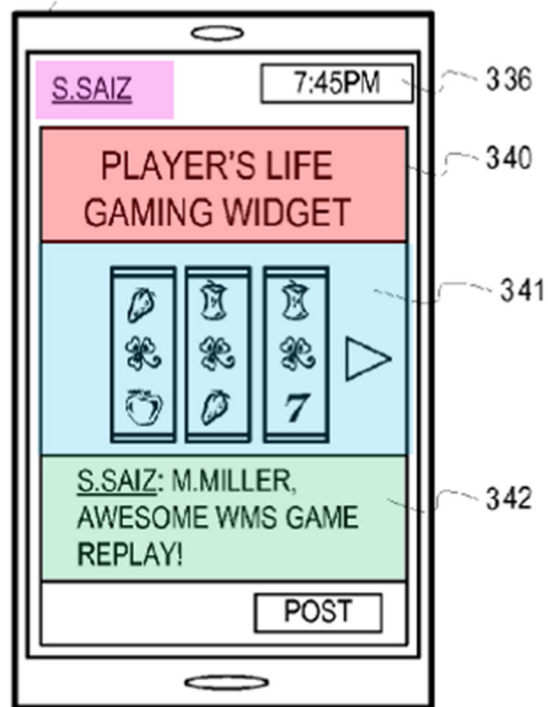


FIG. 3

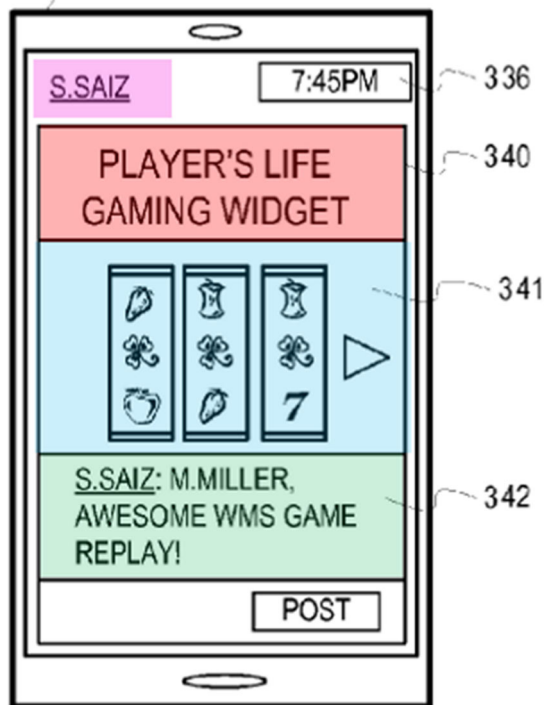
(Excerpt of FIG. 3)

351. Barclay '019's comment includes a keyword. Barclay '019 expressly states, "[t]he *comment 342* includes the *key phrase* 132C (i.e., the phrase 'WMS game replay')." (EX1006, 10:11-13.)

4. Claim 3: "The method of claim 1, further comprising: determining a keyword from the interaction of the second user with the content item; and determining the influence to the video gaming environment based on the keyword."

352. Barclay '019 discloses this claim.

353. First, Barclay '019 discloses "determining a *keyword* from the *interaction* of the *second user* with the *content item*." As shown in FIG. 3, the *interaction* of the *second user* (*S. Saiz*) with the *content item* (*replay 341*) includes a *comment*: "M. MILLER AWESOME WMS GAME REPLAY!" (*Supra* §IX.E.2.e.) And "[t]he *comment 342* includes the *key phrase* 132C (i.e., the phrase "WMS game replay")." (EX1006, 10:11-13.)



(Excerpt of FIG. 3)

354. Second, Barclay '019 discloses “determining the ***influence*** to the video gaming environment based on the ***keyword***.” (*Supra* §§IX.E.2.e-IX.E.2.f.) “The comment 342 includes the ***key phrase*** 132C (i.e., the phrase ‘WMS game replay’). The ***server 150***, for example, may award the second user (e.g., via user account 374) ***the default point value 133C*** for the usage of the ***key phrase 132C***.” (EX1006, 10:11-15.)

355. As shown in FIG. 1, each key phrase is associated with award values. “The key phrases 132A-132D can be stored in a relational database. The key phrases 132A-132D include identifiers 131A, 131B, 131C, and 131D (‘131A-

131D') that, respectively, identify the key phrases 132A-132D. Each of the key phrases 132A-132D also include award values, such as default point values 133A, 133B, 133C, and 133D ('133A-133D'). The default point values 133A-133D indicate non-monetary values for points that the server 150 can award for usage of one or more of the key phrases 132A-132D within the message 107." (EX1006, 3:49-58.)

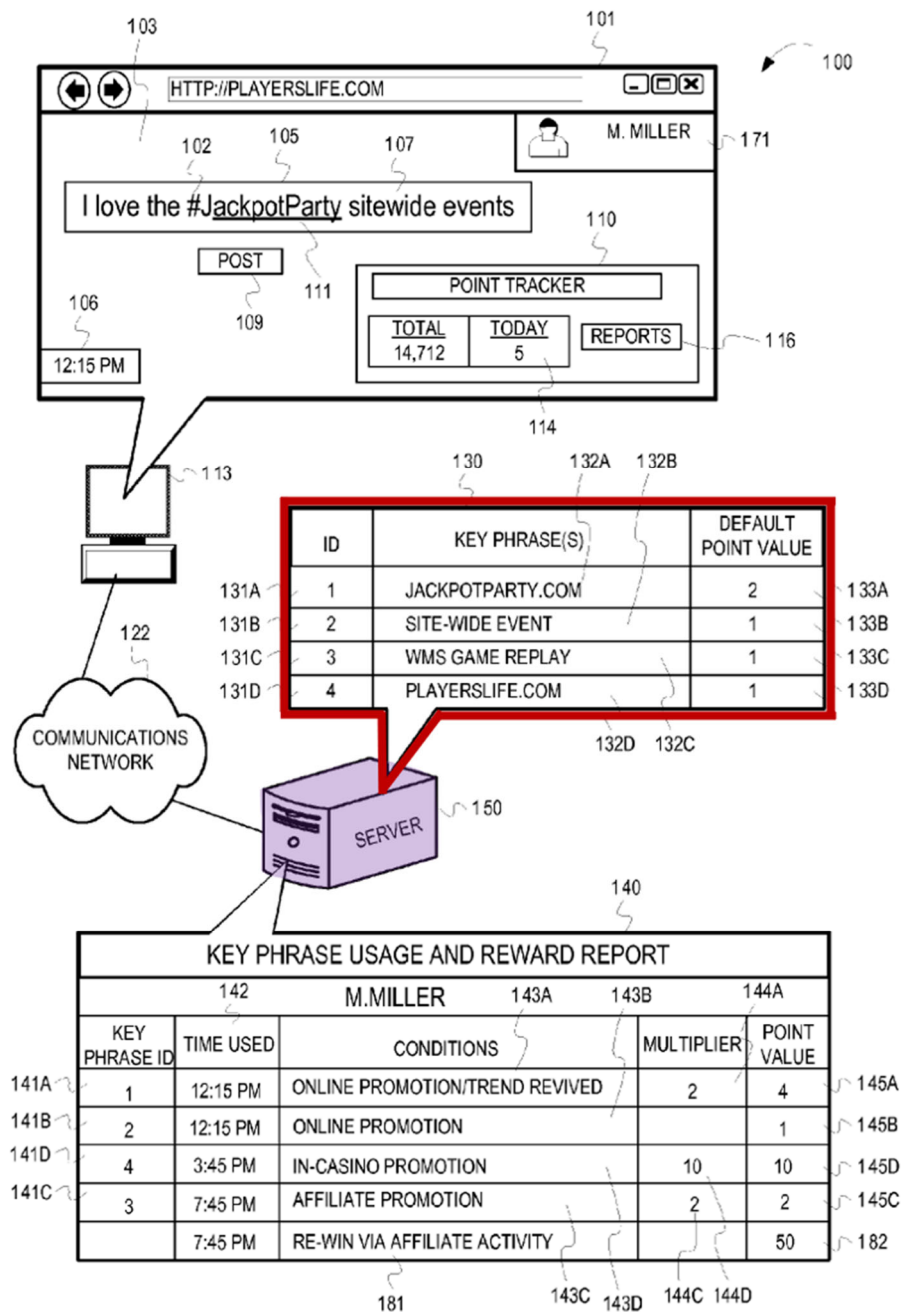


FIG. 1

5. Claim 4: “The method of claim 1, further comprising: determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video gaming environment based on the gameplay status associated with the second user.”

356. Barclay '019 discloses this claim. Barclay '019 determines a gameplay status associated with the second user, the gameplay status associated with the second user indicating a *role of the second user* in the video gaming environment and determines the influence to the video gaming environment accordingly. As discussed below, depending on whether the second user is a *player* or *non-player*, Barclay '019 determines the award differently. (*Infra* §§IX.E.7 and IX.E.8.)

6. Claim 5: “The method of claim 4, wherein the gameplay status is selected from a group consisting of a core player status, a casual player status, and a non-player status.”

357. Barclay '019 discloses this claim. In FIG. 3, M. Miller has the *core player status* because he plays the wagering game. Further, S. Saiz has the *casual player status* (or alternatively a *non-player status*) because he does not play the wagering game but views the replay of the game to receive game points. (*Supra* §IX.E.2.) Barclay '019 further discloses a *non-player status*—a user who does not yet have a player account. (*Infra* §IX.E.7.)

358. Barclay '019 discloses additional gameplay statuses. (*See, e.g.,* EX1006, 12:8-13:3, 13:34-61.) For example, Barclay '019 discloses a *casual player status* called a “bankrolling player,” for example, “a player sitting at a wagering game machine bank can offer a certain amount of points to win if another player, at the bank, hits a specific gaming event... If the other player achieves the

specific gaming event, then the other player wins the points bankrolled by the first player. The first player that bankrolled the points could also win points for initiating a points wagering session that utilized the player's bankroll of points. For example, the first player could receive points from the other player (e.g., as a signup fee for the points wagering session and/or if the other player does not attain the event) and/or receive points from a casino for initiating the points wagering session.” (EX1006, 13:45-61.) This player does not actively participate in the wagering. It would have been obvious that the bankrolling feature would be available for all Barclay games, including the ones discussed with respect to claim 1.

7. Claim 6: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, applying the influence to a game item associated with the first user in the video gaming environment.”

359. Barclay '019 discloses this claim. Barclay '019 determines that a gameplay status associated with the *second user* is a *non-player status* and *applies the influence to a game item* associated with the *first user* in the video gaming environment.

360. For example, if the *second user* who does not have a player account (i.e., a non-player) registers for a player account for the game, Barclay '019 *applies the influence to a game item* (i.e., awards) of the *first user*. “The *first user*

receives *a form of benefit* because of the *second user*'s activity. . . . The affiliate relationship can be a result of efforts that the *first user* performed to entice the *second user* to register for, and obtain, a player account for a social networking venue or a wagering game venue.” (EX1006, 5:8-14.) A POSITA would have found it obvious that, before the *second user* registers for a player account, he or she is a *non-player*. (See *id.*, 5:50-51 (“a ‘player account’ represents the player at a computerized level.”).)

361. Awarding the first user, as taught by Barclay '019, discloses applying the influence to a game item because, for example, it increases count of the game item associated with the first user. This is consistent with the '388 patent (See *e.g.*, EX1001, 20:52-54 (a “#thunderstorm” comment leads to awarding “a thunderstorm item (in-game item)”), 16:46-49 (“user rewards/points including data on unlocked content, number of points, and rewards” are all “items”).).

362. Similarly, Barclay '019 also discloses “the system can track a degree of affiliate relationship with *another user* that reads or uses the published message and/or that reuses the message (e.g., award values increase the more that a message is resent). The system can track the affiliate relationship along a chain of *individuals who signed up for a service* (e.g., if the *user* refers a *friend* to sign-up as a member, then the system can go down the chain of referral sign-ups, along with any individuals that the referral members signed up, with each successive

level of the signup chain *adding to award values*.” (EX1006, 8:64-9:7; *see also id.*, 8:56-63, 10:30-38.) Thus, if a friend signs up (*e.g.*, by activating a link in a post by the first user), the first user is awarded. A POSITA would have found it obvious that awarding the first user is application of the influence (*e.g.*, increasing count) to a game item (award) associated with the first user.

8. Claim 7: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, applying the influence to a game item associated with the second user in the video gaming environment.”

363. Barclay ’019 discloses this claim. Barclay ’019 determines that a gameplay status associated with the *second user* is a *player* status and *applies the influence to a game item* associated with the *second user* in the video gaming environment. “The system can detect that the message is associated with a player account.” (EX1006, 6:33-34; *see also id.*, claim 7 (“detect that the message originated from a social networking account that is associated with a player account controlled, at least in part, via a wagering game server”).) “Referring back to FIG. 3, a social contact of the first user (*e.g.*, a *second user, S. Saiz*, who is a friend of the first user, Marcus Miller), may view a publication of the message 312 via the mobile device 330 using a gaming widget 340 installed on the mobile device 330. The account server 370 links the first user, Marcus Miller, via the player account 371, to other accounts, or affiliates 372, one of which is the user

account 374 for the second user, S. Saiz. The second user views a replay of the player's achievement (e.g., S. Saiz views at 7:45 PM, as indicated by the clock 336, the replay 341) and posts a comment 342 (e.g., via the post control 343). The comment 342 includes the key phrase 132C (i.e., the phrase "WMS game replay"). The server 150, for example, may award the *second user* (e.g., via user account 374) *the default point value 133C* for the usage of the key phrase 132C. However, referring again to FIG. 1, in the report 140, the server 150 specifies a multiplier 144C, because of the affiliate relationship between the first user and the second user, and because the second user commented (e.g., via the gaming widget 340) about content generated via the first user's gaming activity (e.g., the message 312 published during the first user's wagering game session)." (EX1006, 10:1-23.) It would have been obvious that the *second user, S. Saiz* is a player, because their account is saved in the account server and can receive game points. (*See id.*, 14:55-56 ("account server 870 can store player account information").) A POSITA would have found it obvious that awarding the second is application of the influence (e.g., increasing count) to a game item (award) associated with the second user.

9. Claim 8: "The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the first user in the video gaming environment."

364. Barclay '019 discloses this claim. Barclay '019, responsive to receiving the *interaction* of the second user with the content item on the social online service, providing a reward to the *first user* in the video gaming environment. Referring to FIG. 3, “the server 150 may also provide an additional reward because the second user *viewed* the gaming replay 341. For instance the *first user* receives a bonus reward in the wagering game 305 and/or receives an award of points (e.g., wins a total award value 182 in the report 140 in FIG. 1, because the condition 181 indicated that a sufficient number of affiliates, such as S. Saiz, *viewed* the game replay 341). In some embodiments, if enough users *click* on the post of the message 312, or if the first user can get enough other users to *register* for an online account to see the posted message 312, the *first user* may “re-win” the wagering game win.” (EX1006, 10:23-35; *see also id.*, 8:64-9:7.)

10. Claim 11

a. 11[PR]: “A system for hosting and providing a video gaming environment to one or more users, comprising:”

365. Barclay '019 discloses a system for hosting and providing a video gaming environment to one or more users. Barclay '019 discloses “a wagering game system (‘system’)” that performs its operations. (EX1006, 2:60, 6:23-29, 9:12; *see also id.*, Abstract, FIG. 8, claim 11; *supra* ¶IX.E.2.)

b. 11[A]: “one or more processors;”

366. Barclay '019 states that its system comprises “one or more processors.” (EX1006, claim 11; *see also id.*, 19:50-60, 19:61-20:2, FIG. 9.)

c. 11[B]: “and a memory storing instructions that, when executed by the one or more processors, cause the system to:”

367. Barclay '019 states that its system comprises “one or more memory storage devices configured to store instructions, which when executed by at least one of the one or more processors, cause the system to perform operations to” perform the limitations of claim 11. (EX1006, claim 11; *see also id.*, 19:50-20:35, FIG. 9; *supra* ¶IX.E.2.)

d. 11[C][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

368. Barclay '019 discloses this element for reasons discussed above with respect to 1[A][1]. (*Supra* §IX.E.2.b.)

e. 11[C][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

369. Barclay '019 discloses this element for reasons discussed above with respect to 1[A][1]. (*Supra* §IX.E.2.c.)

f. 11[D]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

370. Barclay '019 discloses this element for reasons discussed above with respect to 1[B]. (*Supra* §IX.E.2.d.)

g. 11[E]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

371. Barclay '019 discloses this element for reasons discussed above with respect to 1[C]. (*Supra* §IX.E.2.e.)

h. 11[F]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

372. Barclay '019 discloses this element for reasons discussed above with respect to 1[D]. (*Supra* §IX.E.2.f.)

i. 11[G]: and modify the video gaming environment based on the influence.

373. Barclay '019 discloses this element for reasons discussed above with respect to 1[E]. (*Supra* §IX.E.2.g.)

11. Claim 12: “The system of claim 11, wherein the interaction of the second user with the content item includes a comment including a keyword.”

374. Barclay '019 discloses this claim for reasons discussed above with respect to claim 2. (*Supra* §IX.E.3.)

12. Claim 13: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a keyword from the interaction of the second user with the content item; and determine the influence to the video gaming environment based on the keyword.”

375. Barclay '019 discloses this claim for reasons discussed above with respect to claim 3. (*Supra* §IX.E.4.)

13. Claim 14: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determine the influence to the video gaming environment based on the gameplay status associated with the second user.”

376. Barclay '019 discloses this claim for reasons discussed above with respect to claim 4. (*Supra* §IX.E.5.)

14. Claim 15: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, apply the influence to a game item associated with the first user in the video gaming environment.”

377. Barclay '019 discloses this claim for reasons discussed above with respect to claim 6. (*Supra* §IX.E.6.)

15. Claim 16: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, apply the influence to a game item associated with the second user in the video gaming environment.”

378. Barclay '019 discloses this claim for reasons discussed above with respect to claim 7. (*Supra* §IX.E.8.)

16. Claim 17: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, provide a reward to the first user in the video gaming environment.”

379. Barclay '019 discloses this claim for reasons discussed above with respect to claim 8. (*Supra* §IX.E.9.)

17. Claim 20

a. 20[PR]: “A computer program product comprising a non-transitory computer usable medium including a computer readable program for hosting and providing a video gaming environment to one or more users, wherein the computer readable program when executed on a computer causes the computer to:”

380. Barclay '019 discloses this preamble. Barclay '019 discloses “[o]ne or more non-transitory, machine-readable storage media having instructions stored thereon, which when executed by a set of one or more processors causes the set of one or more processors to perform operations.” (EX1006, claims 17-20, 22; *see also id.*, 19:50-20:35; *supra* §IX.E.2.) A POSITA would have found it obvious that Barclay '019 discloses a computer program product.

b. 20[A][1]: “provide access to the video gaming environment to the one or more users via one or more user devices,”

381. Barclay '019 discloses this element for reasons discussed above with respect to 1[A][1]. (*Supra* §IX.E.2.b.)

c. 20[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

382. Barclay '019 discloses this element for reasons discussed above with respect to 1[A][2]. (*Supra* §IX.E.2.c.)

d. 20[B]: “transmit a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

383. Barclay '019 discloses this element for reasons discussed above with respect to 1[B]. (*Supra* §IX.E.2.d.)

e. 20[C]: “receive an interaction via the social online service of a second user with the content item on the social online service;”

384. Barclay '019 discloses this element for reasons discussed above with respect to 1[C]. (*Supra* §IX.E.2.e.)

f. 20[D]: “determine an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

385. Barclay '019 discloses this element for reasons discussed above with respect to 1[D]. (*Supra* §IX.E.2.f.)

g. 20[E]: and modify the video gaming environment based on the influence.

386. Barclay '019 discloses this element for reasons discussed above with respect to 1[E]. (*Supra* §IX.E.2.g.)

18. Claim 21: “The method of claim 1, wherein the server is a third-party server.”

387. Barclay '019 discloses this claim. The '388 patent states that hosting a game on a “third-party” server is an alternative to hosting the game on “social networks.” Specifically, “[t]hese video gaming applications referenced or

described here may either be hosted by an online community, for example, *one or more social networks*, or alternatively, by *third party servers that are wholly or partially dedicated to gaming applications.*” (EX1001, 6:41-45; *see also id.* 2:36-39, 11:11-24, FIG. 1.)

388. Consistent with the '388 patent, Barclay '019's FIG. 8 shows that its *wagering game server* is a separate server from its *social network server*. (EX1006, 18:57-59.) Barclay '019 discloses social network services such as *Facebook* and *Twitter*; thus, a POSITA would have found it obvious that the *wagering game server* of Barclay '019 (assigned to WMS Gaming, Inc.) would be implemented as a separate server from *Facebook* servers and *Twitter* servers.

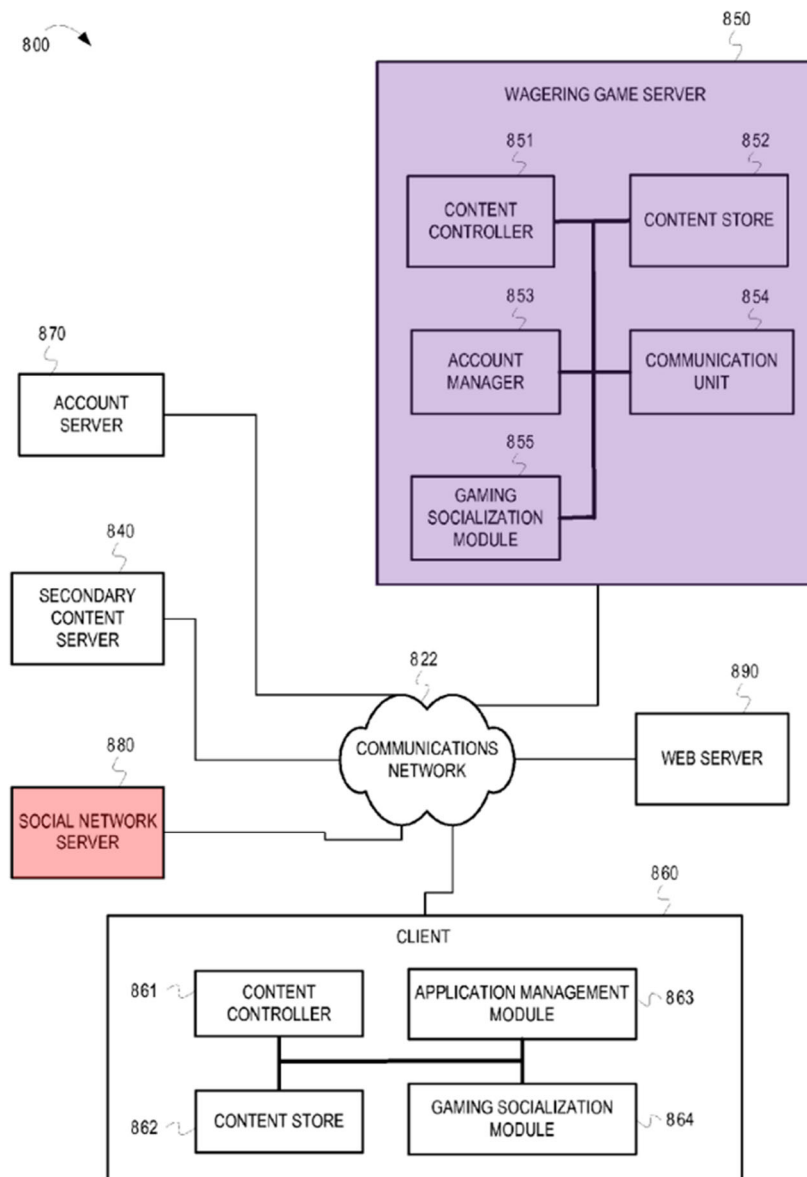


FIG. 8

19. Claim 22: “The method of claim 1, wherein the server is a third-party server that hosts the video gaming environment.”

389. Barclay ’019 discloses this claim for reasons discussed above with respect to claim 21. (*Supra* §IX.E.18.)

20. Claim 23: “The method of claim 1, wherein the server is a social networking server that hosts the video gaming environment and the social online service.”

390. Barclay ’019 discloses this claim. With reference to FIG. 8, “[t]he wagering game system architecture 800 can [] include a *wagering game server 850*” and “also include a *social network server 880* configured to host social networking network accounts, provide social networking content, control social networking communications, store associated social contacts, etc.” (EX1006, 15:3-4, 18:17-21.) Further, “some functions performed by one component could be performed by other components. For example, the *wagering game server 850* can also be configured to perform functions of the secondary content server 840, the *social network server 880*, the web server 890, and other network elements and/or system devices.” (*Id.*, 18:60-65; *see also id.*, 18:34-47.) In other words, the same Barclay ’019 server can host both the *video gaming environment* and the *social online service*.

391. Additionally or alternatively, “[t]he wagering game system architecture 800 can also include a web server 890 configured to control and present an online website that hosts wagering games. The web server 890 can also be configured to present multiple wagering game applications on the client 860 via a wagering game website, or other gaming-type venue accessible via the Internet.

The web server 890 can host an online wagering website and/or a social

networking website. The web server 890 can include other devices, servers, mechanisms, etc., that provide functionality (e.g., controls, web pages, applications, etc.) that web users can use to connect to a social networking application and/or website and utilize social networking and website features (e.g., communications mechanisms, applications, etc.).” (EX1006, 18:34-47.)

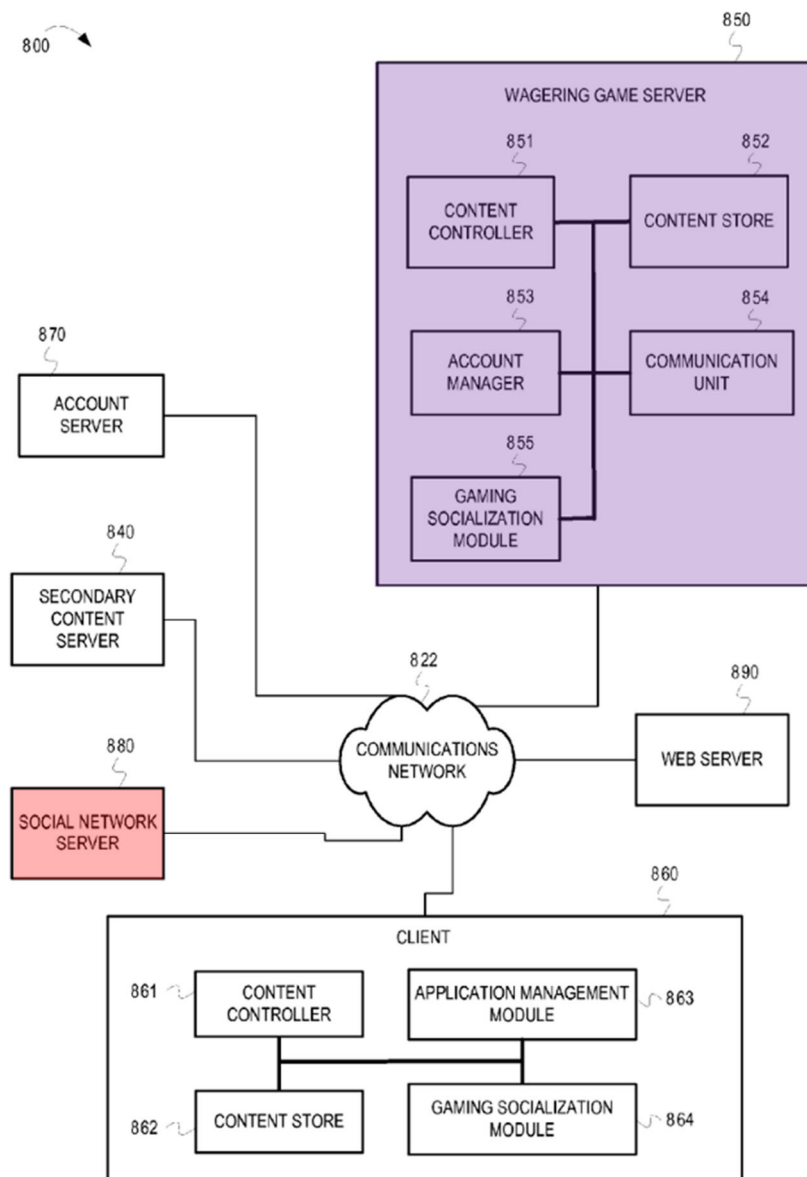


FIG. 8

F. Ground 6: Barclay '019 and Barclay '363 Render Obvious Claims 1-8, 11-17, and 20-23.

1. Summary of Barclay '363

392. Barclay '363 was filed on March 29, 2012, before the earliest provisional application filing date of the '388 patent, and thus qualifies as prior art under §102(e). (EX1007, 1.) Barclay '363 was listed in an Information Disclosure Statement by Applicant. (EX1003, 148.) The Examiner did not apply Barclay in any of the Office Actions.

393. Barclay '363 and Barclay 019 are filed by the same Applicant, WMS Gaming, Inc. and share multiple inventors. Both are directed to social networking and wagering systems. (EX1007, Title; EX1006, Abstract.) Barclay '363 discloses additional ways that a video game environment can be *modified* based on social *interactions*. For example, “the system can use instructions indicated in *friend accounts' comments* to *influence a gaming effect* during the wagering game player account's wagering game session. In some embodiments, instructions indicated in friend accounts' comments can indicate *likes, dislikes, preferences, or some other voting feature related to the wagering game session that would specify what the wagering game player account should do during the wagering game session (e.g., vote for the player to bet more, vote for the player to bet more lines, vote for the player to select a specific item, vote for the player to stop a reel*

at a certain time, etc.)” and the system can “enforce the results of the vote (e.g., authorize the wagering game machine to bet for the wagering game player account based on audience vote).” (EX1007, [0083].)

2. A POSITA would have been motivated to combine Barclay ’019 and Barclay ’363.

394. At the time of the alleged invention, it would have been obvious to a POSITA to combine Barclay ’019 and Barclay ’363. Barclay ’019 and Barclay ’363 are analogous references directed to integrating social networking functionality with wagering-game systems. (EX1006, Abstract, 2:40-56; EX1007, Title, Abstract, [0041].) Both references were filed by the same Applicant (WMS Gaming, Inc.), share multiple inventors, and address the same technological problem of increasing player engagement and interaction through social-network activity integrated into wagering-game environments. *Id.* They also share similar figures and descriptions of the system architectures and user devices. (*See, e.g.,* EX1006, 14:50-19:46, FIGS. 8-12; EX1007, [0052]-[0061], FIGS. 2, 6-8.)

395. Barclay ’019 discloses analyzing social-network interactions such as *comments, clicks, and views* and *modifying* the wagering-game environment. Barclay ’363 discloses additional ways in which the *same types of social-network interactions such as comments clicks* can directly *“affect [and] control” the gameplay*. (EX1007, [0083].) For example, in Barclay ’363, the social-network

interactions *affect wager amounts, item selection, when to stop a reel, and presenting social-network content within the game (e.g., “present the comments on the reels”)*. (EX1007, [0083], [0072].) Because the references address the same field of endeavor, use compatible system architectures, and rely on the same types of social-network interactions, a POSITA would have been motivated to combine the teachings of Barclay ’363 with Barclay ’019 to improve user interaction, gameplay immersion, and wagering-game engagement.

396. Barclay ’019 itself discloses claim 1. But to the extent claim 1 requires additional forms of gameplay modification beyond the reward mechanisms disclosed in Barclay ’019 (which is not conceded), the Barclay-Barclay combination discloses this. For example, Barclay ’019 discloses transmitting gameplay-related content items to social-network services, receiving interactions such as comments, clicks, and views, analyzing those interactions (e.g., using keyword and condition analysis), and modifying the wagering-game environment by awarding points, benefits, and gameplay-related rewards. (*Supra* §IX.F.3.) Barclay ’363 discloses additional techniques for modifying the wagering-game environment based on the same social-network interactions. Thus, the Barclay-Barclay combination would perform the operations disclosed in Barclay ’019 and would additionally enable more ways to automatically modify the gaming environment as taught by Barclay ’363, based on analysis of the

interactions as taught by both references (*e.g.*, keyword-based analysis, condition-based analysis). The additional ways to modify the gaming environment would include controlling the wagering gameplay and embedding social-network content in the wagering game as taught by Barclay '363.

397. A POSITA would have recognized that Barclay '019 already provided the infrastructure for parsing, categorizing, and evaluating social-network interactions, while Barclay '363 discloses additional gameplay effects that could be triggered by the same analyzed interactions. Further, Barclay '019 already discloses presenting comments and social communications during wagering-game play through in-game interfaces. (EX1006, FIG. 3.) Combining these teachings would have predictably enhanced player immersion and social interaction by visually integrating social-network comments, friend activity, and social communications directly into the wagering-game environment itself. Further still, the Barclay-Barclay combination would have awarded users with items, rewards, privileges, and enhanced gameplay opportunities based on the same social-network interactions. Barclay '019 already discloses conditions and criteria for rewarding users based on comments and other social-network activity. (*Supra* §IX.E.2.) Barclay '363 discloses additional conditions, criteria, and reward mechanisms that could be incorporated into the reward framework of Barclay '019.

398. The Barclay-Barclay combination would yield the predictable result of enhanced interactivity, engagement, and commercial appeal of the wagering-game system by increasing user participation and encouraging ongoing social-network interaction. By incorporating Barclay '363's gameplay-control techniques into Barclay '019's keyword-analysis and reward framework, the combined system would provide a richer and more dynamic wagering-game environment in which social-network interactions directly affected gameplay outcomes, wagering decisions, visual game presentation, and player rewards. Such integration would encourage players and their social contacts to interact more frequently with wagering-game content because those interactions could produce meaningful gameplay effects and tangible rewards, which is the stated goals of both Barclay references. (EX1006, Abstract, 2:40-56; EX1007, Title, Abstract, [0041].)

399. The known benefits of Barclay '363 would prompt its application in the same field based on design incentives and market forces. The combination would improve Barclay '019 in the same way, for example, by improving gameplay personalization and social immersion. Barclay '363 teaches using audience comments and preferences to dynamically influence gameplay decisions, while Barclay '019 teaches detailed analysis of message content, keywords, and conditions associated with those messages. Combining these teachings would have enabled the wagering-game system to tailor gameplay behavior and rewards to

real-time social-network activity and user feedback. This would have predictably improved the responsiveness and entertainment value of the wagering-game environment by transforming passive social-network comments into active gameplay modifiers and integrated gaming content. A POSITA would have recognized that the Barclay-Barclay system would motivate users to generate more social-network activity, invite additional users into the wagering environment, and remain engaged with the wagering-game platform for longer periods of time.

400. A POSITA would be motivated to use the known techniques of Barclay '363 to improve Barclay '019 in the same way. Barclay '019 provides a wagering game environment that has a social-network analysis framework, and Barclay '363's gameplay control would expand the wagering game environment. Both references disclose compatible server architectures and user devices. (*See, e.g.,* EX1006, 14:50-19:46, FIGS. 8-12; EX1007, [0052]-[0061], FIGS. 2, 6-8.) Because Barclay '019 already disclosed parsing and analyzing social-network comments to determine rewards and gameplay-related effects, a POSITA would have found it straightforward to apply Barclay '363's gameplay-control mechanisms to those same analyzed interactions. The combination merely applies known social-network-driven gameplay control to a known social-network analysis system to achieve the predictable result of enhanced gameplay interactivity and user engagement.

401. It also would have been obvious to try combining Barclay '019 and Barclay '363. There were only a finite number of identified and predictable ways to use social-network interactions to modify wagering-game environments, including awarding points, granting privileges, displaying social content during gameplay, or directly affecting gameplay mechanics. Barclay '019 and Barclay '363 disclose complementary implementations of those known techniques using the same types of social-network interactions and similar wagering-game architectures. The combination would therefore have been straightforward and readily achievable by a POSITA with a reasonable expectation of success. Prior art such as Barclay '363 has successfully demonstrated that the direct gameplay control provides improved user experience, and thus there would have been a reasonable expectation of success for combining the two references.

3. Claim 1

a. **1[PR]: “A computer-implemented method for providing a video gaming environment hosted on a server to one or more users, comprising:”**

402. The Barclay-Barclay combination discloses this preamble for reasons discussed above with respect to 1[PR] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.a.)

b. **1[A][1]: “providing access to the video gaming environment, by the server, to the one or more users via one or more user devices,”**

403. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[A][1] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.b)

c. 1[A][2]: “the one or more user devices including a user interface configured to display the video gaming environment;”

404. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[A][2] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.c.)

d. 1[B]: “transmitting, by the server, a content item to a social online service, the content item representing an event associated with a first user in the video gaming environment;”

405. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[B] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.d.) Similar to Barclay '019, Barclay '363 discloses a *content item* representing an event associated with a first user is *transmitted* by the server to the *social online service*.

406. For example, FIG. 4 of Barclay '363 shows a *content item* representing an event (winning of 500 credits) associated with a first user (“Amy S.”) is *transmitted* to the *social online service* (“FACEPAGE”). “The wagering game machine 460 presents a congratulatory message 402 that indicates that the player account 471 wins a certain amount. The system 400 also includes a computer 437 connected a social network server 480 via the communications network 422. The computer 437 presents a web browser 440. The web browser 440

presents a social network website 441 hosted by the social network server 480. The system 400 *transfers* a *message of the win* to the *social network server 480*, which presents a status indicator comment 482 about the player account's win in a status feed console 444.” (EX1007, [0067]; *see also id.*, [0070] (“the system can indirectly connect to the social networking website by *sending instructions* to a *social network server* to post the social networking message”).)

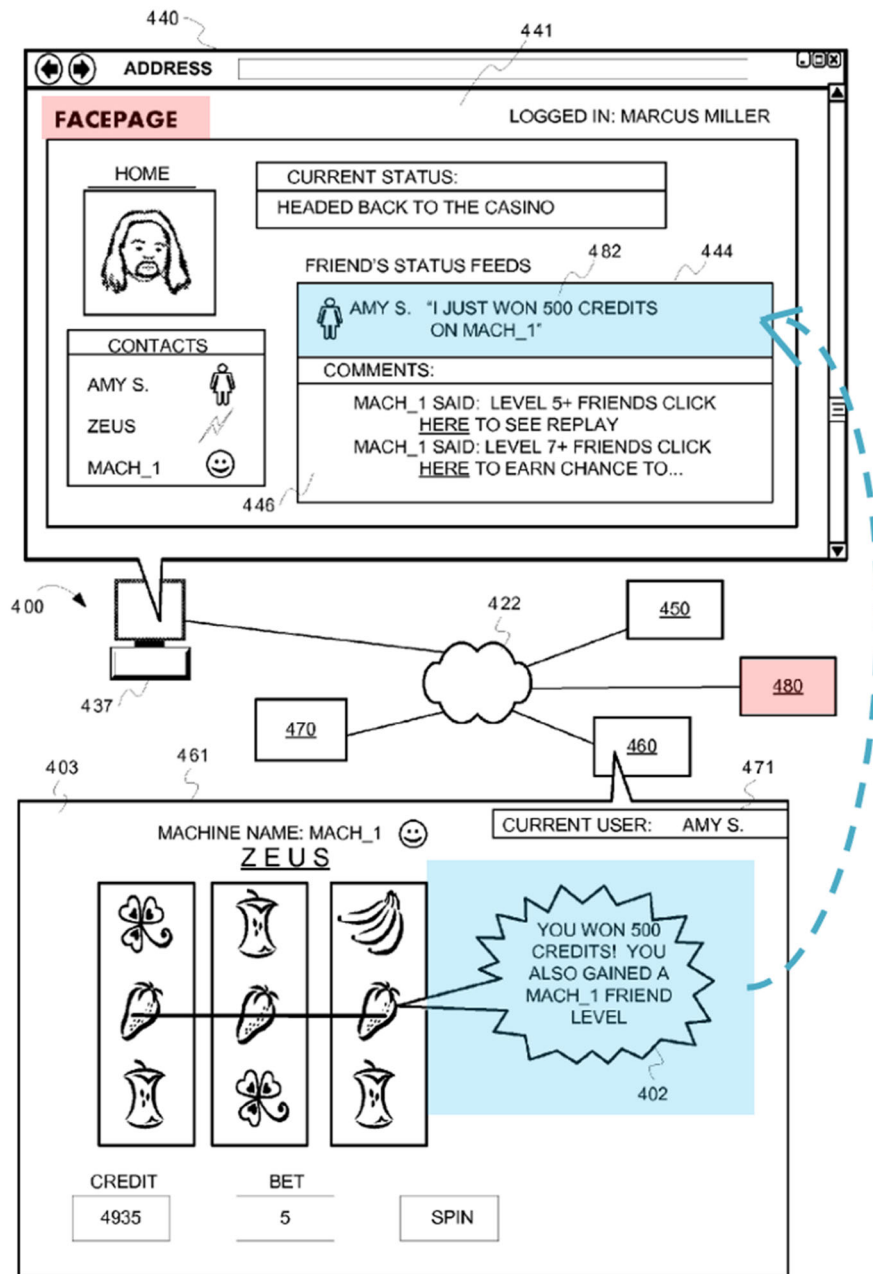


FIG. 4

407. Barclay '363 discloses that the content item is transmitted by a *gaming server* to the *social network server*. As shown in FIG. 2, Barclay '363 similarly discloses a *wagering game server* and a *social network server*. The

wagering game server “generate[s] game results (e.g., win/loss values), including win amounts.” (EX1007, [0053].) Moreover, “[t]he *wagering game server* 250 can control communications between the wagering game player account and a connected *social network account* during a wagering game session.” (*Id.*, [0057]; *see also id.*, [0008], [0078].)

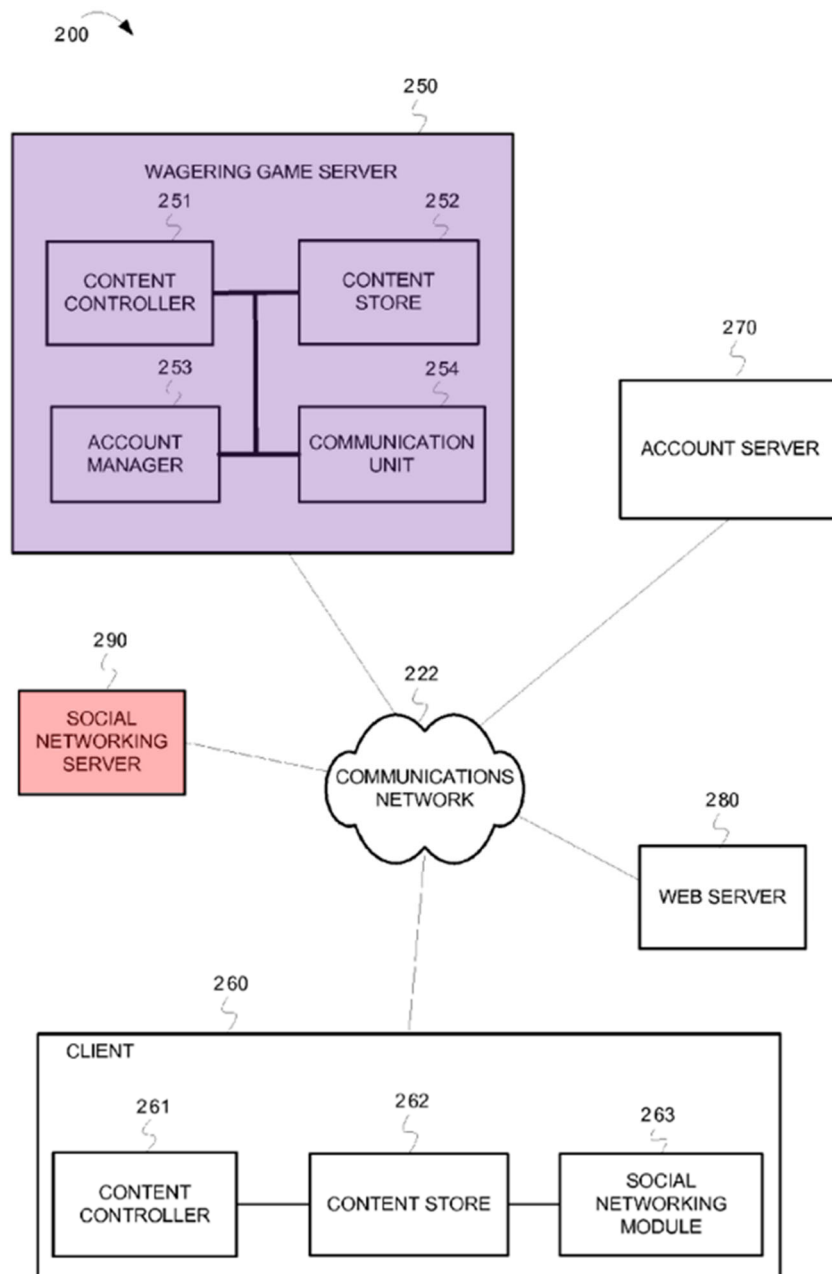


FIG. 2

e. 1[C]: “receiving, by the server, an interaction via the social online service of a second user with the content item on the social online service;”

408. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[C] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.e.) Barclay '363 discloses receiving an *interaction* via the social online service of a *second user* with the *content item* on the social online service. Specifically, “the system can receive *comments* [on the *social networking message*] from *social networking contacts* associated with the social network account. . . .” (EX1007, [0072].) As another example, “the system can monitor the player-owned social network account for *social networking communications* from one or more social-contact-owned social network accounts (*‘friend accounts’*) associated with the player-owned social network account. The friend accounts can send the social networking communications using social networking communication features of the social networking website.” (*Id.*, [0082].)

409. It would have been obvious that the interaction is received by the server (*i.e.*, “*wagering game server*”). (*Supra* §§IX.E.2.d, IX.F.3.d.)

f. 1[D]: “determining, by the server, an influence to the video gaming environment based on the interaction via the social online service of the second user with the content item on the social online service;”

410. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[D] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.f.) Barclay '363 discloses determining, by the server, an *influence* to the video

gaming environment based on the *interaction* via the social online service of the *second user* with the content item on the social online service.

411. For example, “the system can use social networking activity by friend accounts to affect or control the wagering game player account associated with the player-owned social contact account. For example, the system can use instructions indicated in *friend accounts' comments* to *influence* a gaming effect during the wagering game player account's wagering game session. In some embodiments, instructions indicated in friend accounts' comments can indicate *likes, dislikes, preferences, or some other voting feature related to the wagering game session that would specify what the wagering game player account should do during the wagering game session (e.g., vote for the player to bet more, vote for the player to bet more lines, vote for the player to select a specific item, vote for the player to stop a reel at a certain time, etc.)*. The system can present the results of the vote on a display on a wagering game machine that the wagering game player account is using during the wagering game session. In some embodiments, the wagering game player account can authorize the system to enforce the results of the vote (e.g., authorize the wagering game machine to bet for the wagering game player account based on audience vote).” (EX1007, [0083])

412. Additional exemplary interactions that cause the system to determine an influence to the video gaming environment and modify the environment accordingly is discussed below. (*Infra* §IX.F.3.g.)

413. It would have been obvious that the interaction is received by the server (*i.e.*, “*wagering game server*”). (*Supra* §§IX.E.2.d, IX.F.3.d.)

g. 1[E]: “and modifying, by the server, the video gaming environment based on the influence.”

414. The Barclay-Barclay combination discloses this element for reasons discussed above with respect to 1[E] in Ground 5. (*Supra* §§IX.F.2, IX.E.2.g.) Barclay ’363 discloses *modifying*, by the *server*, the video gaming environment based on the *influence*.

415. In a first example, Barclay ’363 discloses that the system can *affect or control* the game, such as determining how much to bet, which item to select, when to stop a reel, etc. “[T]he system can use social networking activity by friend accounts to *affect or control* the wagering game player account associated with the player-owned social contact account. For example, the system can use instructions indicated in *friend accounts' comments* to *influence* a *gaming effect* during the wagering game player account's wagering game session. In some embodiments, instructions indicated in friend accounts' comments can indicate *likes, dislikes, preferences, or some other voting feature related to the wagering game session*

that would specify what the wagering game player account should do during the wagering game session (e.g., vote for the player to bet more, vote for the player to bet more lines, vote for the player to select a specific item, vote for the player to stop a reel at a certain time, etc.). The system can present the results of the vote on a display on a wagering game machine that the wagering game player account is using during the wagering game session. In some embodiments, the wagering game player account can authorize the system to *enforce the results of the vote (e.g., authorize the wagering game machine to bet for the wagering game player account based on audience vote).*” (EX1007, [0083].)

416. In a second example, Barclay ’363 *integrates or rewards the second user* in the game. “[I]f a social-contact-owned social network account (i.e., a *friend account*) makes a *comment* for the player-owned social network account, the system can *make the friend account eligible to be integrated into the game or be eligible for some reward*. If the friend account also owns a wagering game player account, the system can *make the friend account's player account eligible to receive rewards on the wagering game network.*” (EX1007, [0084].)

417. As a third example, Barclay ’363 *gives rewards, items, or opportunities to the first user*. “[T]he system can *provide rewards to the wagering game player account (e.g., a promotion, a privilege, etc.)* based on an amount of *social networking communication* received by *friend accounts* during

the wagering game session. For example, the system can *present a stacked wilds feature, which grants the wagering game player account eligibility for more wilds* based on the amount of *social networking activity* (e.g., for every ten friend account comments, the system makes the wagering game player account eligible for another wild). In another example, the system can *provides opportunities for a player to increase their chances of receiving a bonus reward or performing better in a bonus game or a wagering game (e.g., a better chance of continuing a cascade, a better chance of getting a multiplier, etc.)* based on an amount of *social networking communications* by *friend accounts*.” (EX1007, [0085].)

418. In a fourth example, Barclay ’363 *displays the social network activity (e.g., comments) in the game*. “[T]he system determines *social networking activity* performed by one or more *social-contact-owned social network accounts*, which are linked to the player-owned social network account, and *presents the social networking activity on the wagering game machine* during the wagering game session. In some embodiments, the system can monitor the player-owned social network account for social networking communications from one or more social-contact-owned social network accounts (“friend accounts”) associated with the player-owned social network account. The friend accounts can send the social networking communications using social networking communication features of the social networking website. The system can *format the social networking*

communication for presentation on the wagering game machine, and present the communication on the wagering game machine (see FIG. 1 for an example of the system 100 presenting the comment feature 143 by the social network account 144 on the comment application 108 on the wagering game machine 160). In some embodiments, the system can *present the social networking communication as part of the wagering game.*” (EX1007, [0082].) It would have been obvious that the *social networking activity* includes *comments* to a post, including a post about the gameplay.

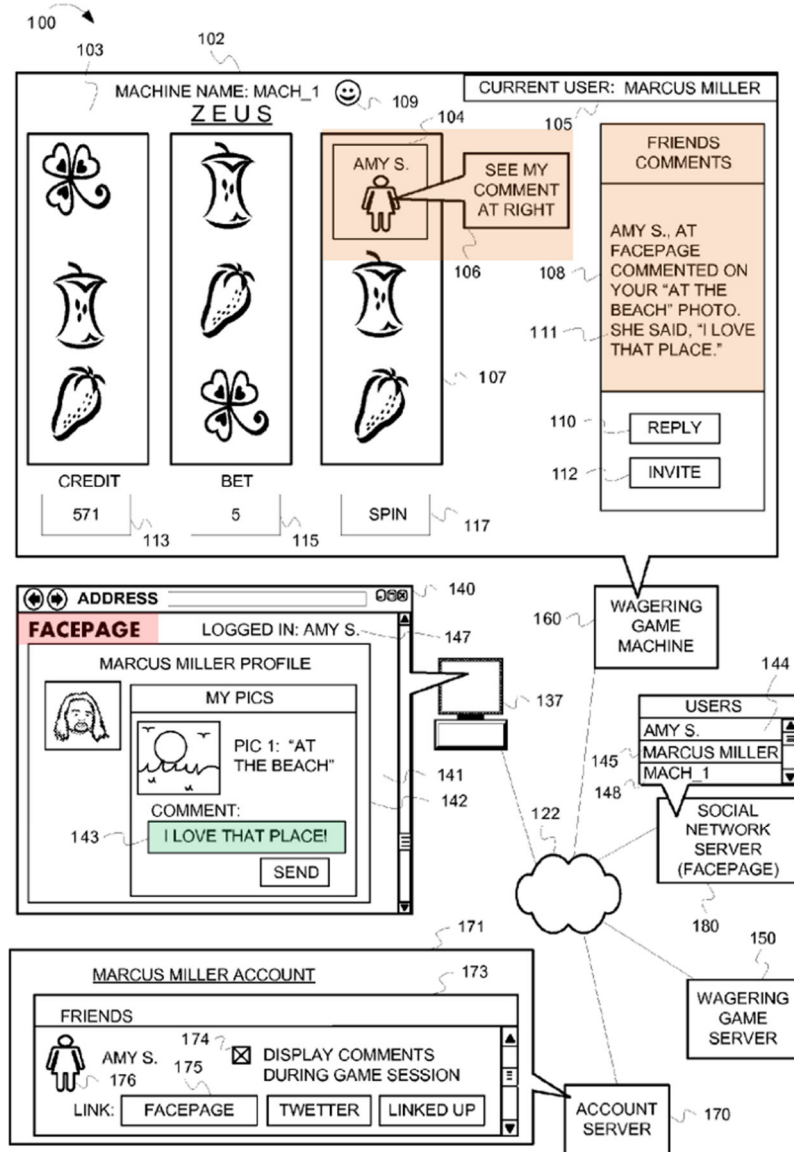


FIG. 1

419. Similarly, “the system can also provide a selectable object (e.g., a link, a button, a video player, etc.), along with the social networking message, that will present a replay of the event when a user selects (e.g., clicks on) the selectable object. In some embodiments, the system can receive *comments* from *social networking contacts* associated with the social network account and communicate

the comments to the wagering game network to *present on a wagering game machine associated with the wagering game session*. In another example, the system can *incorporate the comments into the wagering game (e.g., present the comments on the reels, include images of social networking contacts who made the comments, etc.)*. Additionally, the system can *reward friends for commenting*.” (EX1007, [0072].)

4. Claim 2: “The method of claim 1, wherein the interaction of the second user with the content item includes a comment including a keyword.”

420. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 2 in Ground 5. (*Supra* §§IX.F.2, IX.E.3.)

5. Claim 3: “The method of claim 1, further comprising: determining a keyword from the interaction of the second user with the content item; and determining the influence to the video gaming environment based on the keyword.”

421. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 3 in Ground 5. (*Supra* §§IX.F.2, IX.E.4.)

6. Claim 4: “The method of claim 1, further comprising: determining a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determining the influence to the video gaming environment based on the gameplay status associated with the second user.”

422. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 4 in Ground 5. (*Supra* §§IX.F.2, IX.E.5; *infra* §§IX.F.8, IX.F.9.)

7. Claim 5: “The method of claim 4, wherein the gameplay status is selected from a group consisting of a core player status, a casual player status, and a non-player status.”

423. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 5 in Ground 5. (*Supra* §§IX.F.2, IX.E.6.) In the Barclay-Barclay combination, anyone can comment on the post to affect the game, with or without a gaming account. These commenters can be mapped to either casual players or non-players.

8. Claim 6: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, applying the influence to a game item associated with the first user in the video gaming environment.”

424. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 6 in Ground 5. (*Supra* §§IX.F.2, IX.E.7.) Barclay ’363 states that “if a social-contact-owned social network account (i.e., a *friend account*) makes a *comment* for the player-owned social network account, the system can *make the friend account eligible to be integrated into the game*. . . .” (EX1007, [0084].) A POSITA would have understood that integrating a friend

account into the game involves applying an influence to a game item (*e.g.*, account list, game GUI) with the first user.

9. Claim 7: “The method of claim 1, further comprising: determining that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, applying the influence to a game item associated with the second user in the video gaming environment.”

425. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 7 in Ground 5. (*Supra* §§IX.F.2, IX.E.8.) Barclay ’363 states that “[i]f the friend account also owns a wagering game player account, the system can *make the friend account's player account eligible to receive rewards on the wagering game network.*” (EX1007, [0084].)

10. Claim 8: “The method of claim 1, further comprising: responsive to receiving the interaction of the second user with the content item on the social online service, providing a reward to the first user in the video gaming environment.”

426. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 8 in Ground 5. (*Supra* §§IX.F.2, IX.E.9, IX.E.2.g .)

11. Claim 11

427. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 11 in Ground 5. (*Supra* §§IX.F.2, IX.E.10, IX.F.3.)

12. Claim 12: “The system of claim 11, wherein the interaction of the second user with the content item includes a comment including a keyword.”

428. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 12 in Ground 5. (*Supra* §§IX.F.2, IX.E.11, IX.F.4.)

13. Claim 13: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a keyword from the interaction of the second user with the content item; and determine the influence to the video gaming environment based on the keyword.”

429. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 13 in Ground 5. (*Supra* §§IX.F.2, IX.E.12, IX.F.5.)

14. Claim 14: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine a gameplay status associated with the second user, the gameplay status associated with the second user indicating a role of the second user in the video gaming environment; and determine the influence to the video gaming environment based on the gameplay status associated with the second user.”

430. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 14 in Ground 5. (*Supra* §§IX.F.2, IX.E.13, IX.F.6.)

15. Claim 15: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a non-player status; and responsive to the gameplay status associated with the second user being the non-player status, apply the influence to a game item associated with the first user in the video gaming environment.”

431. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 15 in Ground 5. (*Supra* §§IX.F.2, IX.E.14, IX.F.8.)

16. Claim 16: “The system of claim 11, wherein the instructions, when executed, cause the system to: determine that a gameplay status associated with the second user is a player status; and responsive to the gameplay status associated with the second user being the player status, apply the influence to a game item associated with the second user in the video gaming environment.”

432. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 16 in Ground 5. (*Supra* §§IX.F.2, IX.E.15, IX.F.9.)

17. Claim 17: “The system of claim 11, wherein the instructions, when executed, cause the system to: responsive to receiving the interaction of the second user with the content item on the social online service, provide a reward to the first user in the video gaming environment.”

433. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 17 in Ground 5. (*Supra* §§IX.F.2,

IX.F.9~~IX.F.11~~, Error! Reference source not found.~~IX.F.10~~.)

18. Claim 20

434. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 20 in Ground 5. (*Supra* §§IX.F.2, IX.E.17, IX.F.3.)

19. Claim 21: “The method of claim 1, wherein the server is a third-party server.”

435. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 21 in Ground 5. (*Supra* §§IX.F.2, IX.E.18.) Barclay '363 states that “the social networks can be hosted by social network servers separate from, and/or external to, the wagering game network.” (EX1007, [0066]; *see also id.*, [0057].)

20. Claim 22: “The method of claim 1, wherein the server is a third-party server that hosts the video gaming environment.”

436. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 22 in Ground 5. (*Supra* §§IX.F.2, IX.E.19; EX1007, [0066]; *see also id.*, [0057].)

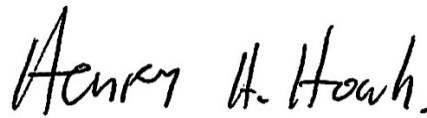
21. Claim 23: “The method of claim 1, wherein the server is a social networking server that hosts the video gaming environment and the social online service.”

437. The Barclay-Barclay combination discloses this claim for reasons discussed above with respect to claim 23 in Ground 5. (*Supra* §§IX.F.2, IX.E.20; EX1007, [0057]-[0060].)

* * *

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code.

Dated: June 29, 2026

A handwritten signature in black ink that reads "Henry H. Houh". The signature is written in a cursive, slightly slanted style.

Henry H. Houh