

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACTIVISION BLIZZARD, INC.,
Petitioner

v.

MILESTONE ENTERTAINMENT, LLC,
Patent Owner

Case No. IPR2025-00712
U.S. Patent No. 11,393,279

**DECLARATION OF DWIGHT CREVELT IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 11,393,279**

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I. INTRODUCTION

1. I, Dwight Crevelt, have been retained by Activision Blizzard, Inc. (“Activision”) to provide an analysis of the scope and content of U.S. Patent No. 11,393,279 relative to the state of the art at the time of the earliest application to which the ’279 patent claims priority. My analysis relates to claims 1, 3-9, 13, 17, 18, 23, 25, 26, 28, and 29. I have also been retained to provide analysis regarding what a person of ordinary skill in the art (“POSITA”) would have understood at the time of the earliest application underlying the ’279 patent.

2. This declaration summarizes the opinions I have formed to date. I reserve the right to modify or amend my opinions, if necessary, based on further review and analysis of information that I receive subsequent to the filing of this declaration, including in response to positions taken by Milestone Entertainment, LLC (“Milestone”) or its experts that I have not yet seen, including any secondary considerations evidence that Milestone or its expert may consider and present.

3. It is my opinion that claims 1, 3-9, 13, 17, 18, 23, 25, 26, 28, and 29 of the ’279 patent are invalid based on the following grounds.

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Ground 1	Claims 1, 3-9, 13, 17, 18, 23, 25, 26, 28, and 29 are obvious under 35 U.S.C. § 103 over Kelly683 ¹ and the knowledge of a person of ordinary skill in the art.
Ground 2	Claims 1, 3, 5-9, 13, 17, 18, 23, 25, 26, 28, and 29 are obvious under 35 U.S.C. § 103 over Walker ² alone or in view of the knowledge of a person of ordinary skill in the art.
Ground 3	Claim 4 is obvious under 35 U.S.C. § 103 over Walker in view of Schneier143. ³

II. EXPERIENCE, QUALIFICATIONS, AND STATUS AS AN INDEPENDENT EXPERT

4. I am an expert in the field of design and operation of gaming machines and systems for the casino industry.

5. I am the founder and presently president of Crevelt Computer System, Inc., a gaming business consulting and engineering development company that is

¹ U.S. Patent No. 8,172,683 to Kelly et al. (Ex. 1005 at “Kelly683”) is §§102(a) and (e) prior art.

² U.S. Patent App. Pub. No. 2004/0002369 to Walker et al. (Ex. 1006 at “Walker”) is §§102(a) and (e) prior art.

³ U.S. Patent No. 5,970,143 to Schneier et al. (Ex. 1008 at “Schneier143”) is §§102(a) and (e) prior art.

located and incorporated in Las Vegas, Nevada. I founded Crevelt Computer in 1977. Although I discuss my expert qualifications in more detail below, I also attach as EX1004 a recent and complete curriculum vitae, which details my educational and professional background.

6. My formal, post-high school education started at the University of Las Vegas in 1973. I continued my education at the U.S. Naval Academy from 1975 to 1977. I then attended Iowa State University, where I received my Bachelor of Science degree in Computer Engineering in 1979.

7. My professional experience in the casino gaming industry started in 1974, when I joined Gamex Industries as a software engineer. As a software engineer, I designed and developed casino game management systems, including an on-line slot accounting and monitoring system, and I also maintained Gamex's online casino table game accounting system. I was also responsible for maintaining the system that monitored the play of table games and slot machines as installed in Caesar's Palace, Las Vegas.

8. In 1977, I started my own consulting company, Crevelt Computer System, Inc., and near the end of 1977 I worked at United Audio Visual as a software engineer developing audio/video controllers for multimedia shows.

9. From 1979 to 1980, I continued to work in the gaming industry as a computer engineer for Sircoma (later becoming IGT). At Sircoma, I developed various gaming machines, including video Poker, video Blackjack, video Red Dog and Whirlwin. I also had responsibility for maintaining the software for the video slot machines. I also acted as a technical gaming control liaison, which involved providing the Nevada Gaming Control Board staff with technical information regarding the company's gaming devices. The Nevada Gaming Control Board regulates the gaming industry in Nevada, overseeing the licensing and compliance of casinos as well as manufacturers and the equipment used in gaming.

10. In 1981, I worked for Mills-Jennings as a Director of Corporate Research. In this role, I assembled and supervised a research and development team that designed a complete line of video casino gaming machines and an on-line casino accounting system. 13. From 1984 to 1986, as a consultant with Crevelt Computer System Inc., I worked with Electronic Data Technologies, where I designed and developed the first complete on-line Player Tracking System.

11. From 1988 to 1996, I worked for Electronic Data Technologies (EDT) and International Game Technologies (IGT). I was responsible for design, development and implementation of player tracking and accounting systems for casino games. Specifically, I was responsible for the development, deployment and

support for over 150 installations of the SMART system and the first cashless system utilized by Caesar's Palace, Las Vegas. In 1995, I was promoted to Product Manager for Cashless Applications. In this role, I prepared business plans and strategies for implementing cashless gaming products, including IGT's first SMART card-based cashless gaming system installed at SBM in Monte Carlo. I also spent time evaluating casino-related intellectual property, particularly patents, especially those pertaining to cashless gaming and progressive systems.

12. As a consultant with Crevelt Computer Systems, I have worked with many gaming equipment manufacturers on the design and development of casino gaming devices, including slots, video games, Keno and Bingo systems. I also have provided independent laboratory analysis of games for regulators in New South Wales, Australia and the state of Mississippi. Additionally, I have conducted mathematical analyses for casino gaming devices.

13. From 1998-2013, Crevelt Computer System was a Partner in FootTraffic Promotional Gaming LLC. As a Partner with FootTraffic Promotional Gaming LLC, I have designed, developed, managed and marketed a series of promotional games for casinos, retailers and trade shows. These are free-play games that are designed to bring or attract patrons to the casino with an opportunity to win cash and prizes. These games have been very successful and several have been

incorporated into permanent promotions at several casinos, including Peppermill Casino (Reno), Casino Fandango (Carson City), and Silver Legacy (Reno).

14. In sum, I have over forty years of engineering and management experience in the gaming industry, both as a consultant and an employee. During this time, I have worked extensively with OEMs, casinos, casino gaming regulators and agencies worldwide, including the Nevada Gaming Control Board. I am also the co-author of two books that relate to the casino gaming industry – Slot Machine Mania and Video Poker Mania – which are still in publication twenty years after they were first published. Additionally, I have been interviewed for numerous magazines, radio programs and television shows regarding gaming machines and the casino industry, including appearances on Secrets Revealed (a documentary on The Learning Channel) and High Rollers (a documentary on the Discovery Channel). Throughout my career, I have kept up to date with the latest developments in the casino industry by subscribing to casino-related trade publications and attending casino gaming shows. In addition, I am a named inventor on six United States patents related to casino gaming systems (i.e., cashless and progressive gaming systems).

15. I am being compensated at the rate of \$400 per hour for my work on this declaration. My fee is not contingent on the outcome of any matter or on any of the technical positions I explain in this declaration.

16. I have no financial interest in Activision. I have been informed that Milestone claims ownership of the '279 patent. I have no financial interest in Milestone.

III. MATERIALS REVIEWED AND CONSIDERED

17. My opinions in this declaration are based on working in the field of computer and software engineering and the casino gaming industry, including my research and consulting. I have an established understanding of the relevant field at the relevant timeframe and I have an understanding of the skill set, capabilities, and knowledge of a POSITA as of September 2, 2003.

18. My opinions are also based on investigation and study of the patent at issue, its file history, and the prior art. In the course of forming my opinions, I have reviewed the exhibits submitted with the Petition, which are specifically identified in Appendix A.

19. I may rely upon these materials and/or additional materials to rebut arguments raised by Milestone. Further, I may also consider additional documents and information in formulating any necessary opinions including documents that may not yet have been provided to me.

IV. UNDERSTANDING OF RELEVANT LEGAL PRINCIPLES

20. I understand that statutory and judicially created standards must be considered to determine the validity of a patent claim. I am not an attorney and, consequently, will offer no opinion on the law itself. My understanding of the pertinent law is described in this section and is the result of explanations provided by counsel. I have applied this understanding in my analysis.

21. I understand that a patent claim is unpatentable if it is obvious in view of the prior art. I further understand that the frame of reference for determining whether a claim is obvious is from the perspective of a POSITA at the time of invention. I have been asked to assume that the effective priority date is September 2, 2003. I have not been asked to determine whether this date is appropriate.

A. Anticipation

22. I have been informed that for a patent claim to be anticipated by the prior art, each and every limitation of the claim must be found, expressly or inherently, in a single prior art references as recited in the claim. I have been informed that a claim limitation not expressly found in a prior art references is inherent if the prior art necessarily functions in accordance with, or includes, the claim limitation. Mere probability that a limitation is included is not sufficient to establish inherency.

B. Obviousness

23. In analyzing obviousness in light of the prior art I have been informed that it is important to understand the scope of the claims, the level of skill in the relevant art, the scope and content of the prior art, the differences between the prior art and the claims, and any objective indicia of non-obviousness (also called secondary considerations).

24. I have been informed that a patent claim is unpatentable for obviousness if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a POSITA to which said subject matter pertains. I have been informed that obviousness may be based on one reference or a combination of references. I have been informed that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.

25. I have been informed that when a patented invention is a combination of known elements, the Board must determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue by considering the teachings of prior art references, the effects of demands known to

people working in a field or present in the marketplace, and the background knowledge possessed by a POSITA.

26. I have been informed that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of the claimed subject matter. I understand that several of these rationales are: (1) combining prior art elements according to known methods to yield predictable results; (2) simple substitution of one known element for another to obtain predictable results; (3) use of a known technique to improve a similar device (method or product) in the same way; (4) applying a known technique to a known device (method or product) ready for improvement to yield predictable results; (5) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (6) and some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

27. I have been informed that in order to prove that a claimed invention is not patentable for obviousness, a petitioner must (1) identify the differences between the claim and particular disclosures in the prior art references, singly or in combination, (2) specifically explain how the prior art references could have been combined in order to arrive at the subject matter of the claimed invention, and (3)

specifically explain why a POSITA would have had reasons to so combine the prior art references.

V. TECHNOLOGY OVERVIEW

A. Online Gaming

28. Wide area networked gaming systems have been around as late as the 1980s. One of the first networked gaming machines was IGT's Megabucks. A central server system was connected via phone lines to a controller in each system. By the mid-1990s, cashless gaming, Internet gaming, and downloadable gaming functions were well on its way. Initially, Internet gaming used software clients downloaded to a player's personal computer to access the network and provide rich graphics. Many companies like Boss Media produced and ran these sites as early as 1996. As Internet technology advanced with JavaScript and Flash, these Internet sites were able to operate without a downloaded client, and instead allowed users to play through an Internet browser.

B. Player Tracking / Loyalty And Slot Accounting Systems

29. Gaming machines were first connected online to a central computer system in January 1975, when Gamex Industries revealed its online Slot Accounting and Security System at the London AMOA show. The system was subsequently installed in Caesars Palace, Las Vegas. (Gamex1-5). In response to Gamex's

development, Bally Mfg. developed its first Slot Data System (SDS) and installed it in the Las Vegas Hilton in the late 1970's. This system had a central computer system monitoring individual signals from the gaming machines on the casino floor.

30. In the early 1980's, I worked on designing and developing online slot accounting and security systems for various companies, including Mills-Jennings, a company that had contracts to develop systems for Steve Wynn/Golden Nugget and Harrah's Casino. The Golden Nugget system was to provide a complete accounting system that would eliminate the need to count the coins collected from the gaming machines. The Harrah's contract was to complete development on their in-house developed slot machine and to provide an online slot accounting system to go along with them. Both of these casinos ultimately canceled development of these projects in light of economic conditions. Additionally, similar systems had limited success in the market because they did not directly produce revenue for the casino and the revenue savings provided by those systems – primarily resulting from minimizing or eliminating accounting and security losses – were not seen to be sufficient to justify the cost of the systems.

31. In 1984, Electronic Data Technologies (EDT), a subsidiary of IGT, developed and installed the first casino-wide online Player Tracking and Slot Accounting System. By 1996, that EDT system, which was originally called the

EDT Action System and was later renamed the SMART System, was installed in over 150 locations worldwide. This represented a larger installation base than that of all competing systems combined. The EDT system became the model for most subsequent systems, including those from Bally, Casino Data Systems (CDS) and Grips.

32. The Player Tracking concept is simply to award bonuses to players for their play. Typically, a player would enroll in a Player's Club at a casino-run booth. Upon enrolling, the player typically would receive a player identification card. Then, whenever the player inserted his card into a card reader attached to the gaming machine, they would be greeted with a message and an updated player account balance reflecting the bonus points in the player's account. During gaming machine play, the player might receive 'y' bonus points for every 'x' coins played. These bonus points are tracked by the system, and the player could redeem them for merchandise, cash, comps (complementary meals, room, shows, etc.) or other items the casino desires to make available. Ex. 1020 at 186-188; Ex. 1021 at 120-121.

33. The basic flow of information from a player tracking unit in a gaming machine to a player tracking system is as follows: Upon insertion of the player identification card into the card reader of a player tracking unit installed in a gaming machine, a message is sent to the host system to retrieve the player's account

information. The account information is looked up in the system's database using the account number from the card. The player's account balance, name, and any other necessary data is then sent back from the host computer/server to the player tracking unit in the gaming machine. While the player's card remains inserted, all of the player's play activity is tracked by the system. While the player is playing, periodic play activity messages are sent to the host to update real-time displays and to provide a backup in case of equipment failures. When the player removes his card, his play activity information is sent to the host, where the system updates the player's account balance.

34. Every gaming machine in a player tracking or slot accounting system has a unique address associated with it. That unique address code enables the host computer or server in the system to transmit information to and receive information from the gaming machine and to track gaming machine accounting information. The system also included an additional table for comps. The value in this field was frequently used by casinos to determine if a player had played enough to earn certain comps or even to provide a cash award back to the player.

35. The EDT system described above included various hardware components, including Slot Machine Interface Boards (SMIBs), Data Collection Units (DCUs), a Front End Controller (FEC), a File Server/Transaction Processor,

and a series of computer workstations on a token-ring network. Those computer workstations were designed to handle various tasks, such as administration, accounting, player enrollment, player redemptions, jackpots/hopper fills, slot maintenance, marketing and promotions, coin scale interface, and security.

36. The SMIB is a microprocessor-based device including erasable programmable read-only memory (EPROM) and random access memory (RAM), along with an alpha-numeric display for messages, a card reader for reading a player identification card, several lights and buttons to facilitate player interaction with the system, an interface board to provide signal conditioning for the connections to the gaming machine, and a serial interface to the DCU. The SMIB monitors the gaming machine and report accounting and security information to the central system. Additionally, the SMIB provided the system interface to the player via the card reader and display.

37. The DCU is a microprocessor-based store and forward device. Each DCU continuously polls the SMIBs to which it is connected for accounting, security, and player tracking transaction information, and forwards that information to the FEC of the host computer system. Additionally, the DCU sends player tracking transaction response information from the host computer system to the SMIBs.

The FEC is a computer workstation on the host system network. The FEC's primary function is to handle communications with the DCUs and SMIBs and the Host System. This included downloading configuration data, polling the DCUs, and responding to the messages received from the floor.

38. The Host System consists of several file servers and workstations on a token-ring network. All workstations were configured to operate and download their programs over the network, and the host system transactions were client/server based.

39. The host workstations are user input devices that allow casino personnel to access, configure, and monitor the data in the system.

Other features of player tracking systems included real time monitoring displays for Hot Players, Active Players, Jackpots and Fills.

C. Bonusing, Promotions, And Cashless Gaming

40. By 1990, most major casinos had player tracking systems. Every system provider and casino was looking for ways to differentiate itself from the competition. Automating existing promotions provided one way to do so, and some casinos (e.g., Sands Atlantic City, Hilton Hotels Nevada, MGM Las Vegas, Harrahs Entertainment) developed their own system for this purpose. Among the promotions known at that time were bus promotions, double jackpot time, double bonus point

time, cash back, and cashless gaming. “One casino even modified its system to give players of regular slot machines extra payouts if they are using their club card.” (Ex. 1021, p122).

41. A cashback promotion permitted the player to convert bonus points into credits to be wagered on a gaming machine. Cashless gaming systems permitted players to transfer credits between a gaming machine and an account on a host computer system so that the player could play gaming machines in a casino without carrying currency and coins from game to game.

42. Cashback and Cashless systems were a challenge to implement in the early 1990’s because gaming machines were not configured with serial communication ports. As a result, the only method to get credits on and off a gaming machine without actually inserting coins or cashing coins out of the machine was to effectively “trick” the machine using the coin in and coin out signals. (Ex. 1020, pp225-226). One problem with online systems in the early 1990’s resulted from the variety of different meters involved. These meters had to be physically read, recorded, and reconciled for accounting purposes. The development and use of a serial number chip in the gaming machine harness allowed data from the various meters to be read and sent to the host along with the gaming machine accounting data. Once the unique serial number for each gaming machine was added to the

system database, the system could track if a particular gaming machine was moved and associate and reconcile the accounting data related to that machine. This greatly simplified the process and eliminated the problems discussed above related to multiple meters. *See also* Ex. 1012 (describing cashless system); Ex. 1013 (same).

43. In approximately 1993, the Sands Casino in Atlantic City developed its own player tracking system that included a feature called Action Cash. The Sands Action Cash system allowed a patron to put money on account in the system and then transfer the funds from the account to the gaming machine for play. After playing a gaming machine, the player could transfer any funds left on the credit meter, along with any winnings from game play, back to his player account. *See also* Ex. 1014 (describing promotion account associated with the player).

44. Further still, the system included “Action Cash” — promotional funds from the casino that the casino could deposit into the players account. These promotional funds were “non-cashable,” because they could be transferred to and from the gaming machine using the system, but they could not be cashed out at the machine. In addition, this system provided casinos with opportunities to craft new promotions with the assurance that the promotional credits given to players would be wagered on that casino’s machines.

45. When the MGM casino opened in Las Vegas in 1993, it used a player tracking system developed in-house. Its casino floor also included approximately 400 coinless gaming machines. Instead, they relied upon bill acceptors to put money on the machine and printed bar coded tickets to cash out any credits left on the machine. These tickets could be taken to a cashier to be redeemed for cash, or they could be inserted into another gaming machine to play.

46. In 1994, Caesars Palace Las Vegas and IGT jointly developed and installed an online cashless system called "Request." The Request system allowed a player to open an account at the cage, where he would receive an ATM-style card. The player was then able to go to a gaming machine transfer funds from his account to the gaming machine using his Request card. Once the funds were transferred to the gaming machine, the player could then wager those funds and play. Upon completion of play, the player could then transfer the credits on the gaming machine back to his player account. The Request system therefore enabled players, especially in the high limit area, to move between gaming machines without having to worry about exchanging tokens. (Ex. 1017; Ex. 1018; Ex. 1019) (Ex. 1011)

47. The Request system at Caesars Palace communicated with the gaming machine using the IGT SAS 3.x protocol. The system was designed to enable a player to use his bank ATM card to transfer funds to the gaming machine. Because

those funds belonged to the player from the outset (as compared to promotional funds given to the player by the casino), the player was permitted to cash them out at will from the gaming machine hopper. Funds of this type that can be cashed out at the player's election are known as "cashable credits." The Request system also used non-cashable credits – credits that could only be transferred to and from the players' account on the system.

D. The SAS Protocol And Cashless Standards

48. With the proliferation of player tracking and slot monitoring systems, the casinos desired the ability to extract more information from the gaming machine. Additionally, they desired the ability to add and remove credits from the gaming machines to provide additional promotions and game play flexibility.

Around 1990 gaming device manufacturers started adding serial communication capability to their machines and in order to utilize the feature manufacturers developed their own protocols to communicate with the machines. Bally's protocol was called SDS and IGT's protocol was DLI (Direct Link Interface), which was later renamed to SAS (Slot Accounting System). Other gaming device and system manufacturers developed their own protocols.

49. The early 2000's saw dramatic changes in the gaming industry. Computer technology had advanced to the point where processor speed, memory

size and video graphic capabilities were no longer limitations to the game design. Interoperability of gaming machines and online casino management systems were being minimized by the use of the SAS protocol (a machine to system protocol developed by IGT that had become the de facto standard in the industry) and the cooperative efforts of the gaming device manufacturer in creating the Gaming Standards Association (GSA).

50. Additionally ticket-in ticket out (TITO) became a widely accepted technology for casino play. This technology first introduced in the early 1990s removed coins from the machines. Players would insert currency into an acceptor on the gaming machine and received credits on the machines to play. When finished the player would press a ‘cashout’ button and the gaming machine would print a ticket representing the remaining credits. The player could cash this ticket in at the casino cage or insert it into another gaming machine to continue playing.

E. Wide Area Network Gaming Systems

51. Wide area networked gaming systems have been around since the late 1980’s. IGT’s Megabucks was the first system that networked gaming machines in multiple casinos around the state of Nevada together to create a large progressive jackpot. A central server system was connected via phone lines to a controller in each casino. The casino controller was connected to the gaming machines as well as

signs and displays. IGT is the primary supplier of these wide area progressive systems and they are operating in most gaming jurisdictions around the world. (Ex. 1015; Ex. 1016)

52. By the mid 1990's cashless gaming, internet gaming and downloadable gaming functions were developing. Initially internet gaming used downloaded clients to a person's personal computer to access the network and provide the rich graphics desired. All decisions and actual gaming functions were carried out by the host to prevent cheating the PC was merely a display. Many companies like Boss Media produced and ran these sites as early as 1996. As the browser technology advanced with Javascript, Java, Flash, etc. these internet sites were able to operate without the downloaded client for graphics and everything would be sent to the browser on demand.

53. The Gaming industry was very active in creating downloadable systems. The first of these included the ability to download new firmware to the machines bill validator and player tracking systems.

F. Basic Electronic Gaming

54. It was well-known to have gaming systems that included a processor coupled to memory. Electronic gaming systems, such as slot machines, arcade games, and home video consoles, have been known for decades. These systems

would necessarily need memory to store the code for the game program and a processor to execute that code.

55. For example, home video game consoles in the 1980s and 1990s had a processor coupled to memory as did personal computers during that era on which users could play games. Early generations of gaming consoles used 8-bit processors, but later generations used 16-bit processors. These early generations of gaming systems had processors coupled with memory that was measured in kilobytes and later in megabytes. Both video games and personal computers had a variety of ways to receive input from a user, which included keyboards and mice, joysticks, and gaming pads, as well as other forms of input. It was also well-known for such gaming devices to output information to the player on a display, such as a computer monitor for personal computers or a household television for home video game consoles. Images would need to be created to output this information to the display and communicate this information to the player.

56. It was also well-known to have games with multiple levels where players could advance from one level to the next. For example, side scroller games in the 1980s involved worlds with different themes that players could advance through. Other well-known games were role-playing games, in which players could control a character, such as a sprite or avatar, navigating through virtual worlds. In

such games, dungeons often had multiple levels that players could advance through. Similarly, users could control these sprites or avatars and have them gain experience points in order to advance levels in a multi-level game.

VI. THE '279 PATENT

A. Overview

57. The '279 patent describes well-known systems and methods to enhance player participation. The '279 patent recognized that “various forms of game play, as well as the suggestions for implementing those games on a mass communication network, such as through the telephone or Internet,” exist. *Id.*, 4:56-59. But the '279 patent endeavored to address “a need for improved game of chance, which provide excitement for the player.” *Id.*, 4:60-62. The patent did so using mandated and variable parameters.

58. The '279 patent discloses a networked gaming system with a play server and remote terminals. “The system and method ... permit greatly enhanced flexibility in game play and the prizing experience for a player, while globally achieving the mandated parameters.” *Id.*, 5:34-37. The '279 patent explains “the mandated parameters are generally input to the system, and preferably stored in memory within the system.” *Id.*, 5:16-17. “Exemplary mandate parameters may consist of prize pay out and win rates, and may include such factors as the minimum

payout amount, the maximum payout amount, a defined percentage payout, the number of prizes, and/or the form of prizes.” *Id.*, 5:11-15.

59. The ’279 patent also discloses “variable parameters available for game play ultimately serving to achieve the mandated parameters and/or provide for enhanced or optimized game play and prizing experience.” *Id.*, 5:49-52. “[A] variable parameter may be the game structure itself, such as in the use of decision points, numbers of levels of game play, and/or duration of game play.” *Id.*, 5:54-57. Variable parameters may also be “the prizing structure parameters may include the desired payout amount, GLEPS or other allocation variables, the frequency of wins (1:X), overall number of winners and prizing structure and allocation of prizes.” *Id.*, 6:17-21.

60. The ’279 patent further teaches that frequent player’s club information may be utilized by the system, “where points are rewarded for game play,” or “to participate in additional features or functionalities.” *Id.*, 9:40-41; 31:59-60.

B. The Challenged Claims

61. I understand that the challenged claims are entitled to an effective filing date of no earlier than September 2, 2003.

62. The ’279 patent has 30 claims, 1 independent and 29 dependent claims. Independent claim 1 includes 6 components:

- (1) a processor
- (2) memory
- (3) a play engine
- (4) a decision engine
- (5) a display system
- (6) a system input

The memory stores mandated parameters and variable parameters, and the play engine implements, modifies, and utilizes the variable parameters to achieve the mandated parameters. The game engine analyzes game play and determines the selection of the variable parameters based on predetermined criteria.

C. The Prosecution History

63. I understand that the '279 patent issued with limited consideration. In the Notice of Allowance, the Examiner merely referred to the applicant's remarks and arguments from March 1, 2022 which made no statements regarding distinctions over the prior art. Ex. 1002, 12, 40-54. The '279 patent issued on July 19, 2022, almost 20 years after its claimed priority date.

VII. LEVEL OF SKILL IN THE ART AND PERSPECTIVE APPLIED IN THIS DECLARATION

64. I understand that certain issues relating to validity must be judged from the perspective of a person of ordinary skill in the relevant art, as I discussed below.

65. The purported invention of the '279 patent generally relates to well-known systems and methods to enhance player participation.

66. In determining the level of ordinary skill, I have been asked to consider, for example, the types of problems encountered in the field, prior solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. In my opinion, it would have taken at least three years of experience in the field for a person to become familiar with the problems encountered in the field and the prior and current solutions to those problems.

67. Taking those factors into consideration, a person of ordinary skill in the art at the time of the claimed priority date of the '279 patent would have had at least a bachelor's degree in computer science or computer engineering, with at least three years of experience in game development. Additional experience could substitute for less education, and additional education could likewise substitute for less experience.

68. My opinions do not turn on the precise definition, and the challenged claim would be unpatentable from the perspective of any reasonable POSITA.

69. I believe that I would have qualified as a person of at least ordinary skill in the art as of the earliest claimed September 2, 2003 priority date on the face of the

'279 patent. I believe that I have a sufficient level of knowledge, experience, and education to provide an expert opinion in the field of the '279 patent.

VIII. OVERVIEW OF THE PRIOR ART

A. U.S. Patent No. 8,172,683 (“Kelly683”) (Ex. 1005)

70. I understand that U.S. Patent No. 8,172,683 to Kelly (“Kelly683”), was filed on March 23, 2006 and published October 16, 2008. I understand that Kelly683 is related through continuation applications to U.S. Patent Application No. 09/433,523 filed on November 3, 1999. I have reviewed the specification for U.S. Patent Application No. 09/433,523, and found the disclosures in that specification are substantially the same as the disclosures in the issued Kelly683.⁴

71. In my opinion, Kelly683 discloses each limitation in independent claim 1 of the '279 patent, except for the *player's club information* limitations of [1.b.iii], [1.b.iii.B], and [1.e].

72. Kelly683 discloses a “casino gaming system” that “provides an opportunity to win a prize in response to game play, each game being played in exchange for monetary input.” Ex. 1005, Abstract. Kelly683's field of the invention

⁴ Note that the specification for U.S. Patent Application No. 09/433,523 incorporated by reference U.S. Patent Application Nos. 09/040,654 and 08/746,755.

is “games normally played in arcades and other environments,” and more particularly, “network gaming systems with prize redemption capabilities.” Ex. 1005 at 1:31-37. Kelly683 discloses “a prize redemption system and method for use with one or more game apparatuses” and further discloses “a generic game apparatus or ‘game unit’ 10 suitable for use with the prize redemption system” Ex. 1005 at 4:12-13; 8:49-51. Kelly683 depicts such a game unit in Figure 2:

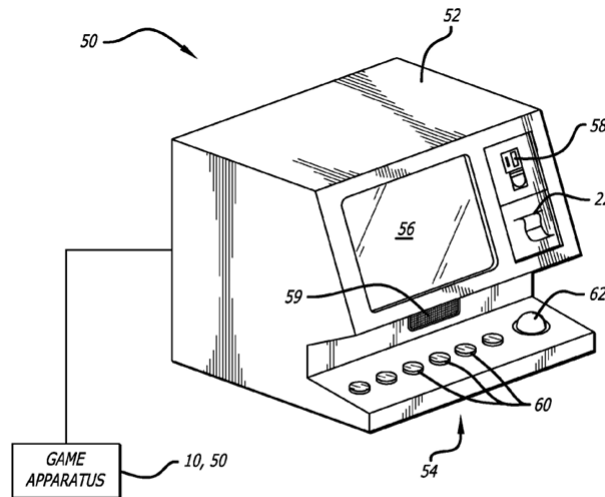


FIG. 2

73. Kelly683 discloses that “[g]ame unit 10 in accordance with the present invention may include a game processor 12, monetary input device 14, player input device(s) 16, game output device(s) 18, a universal ticket dispenser 20, a specific prize ticket dispenser 22, and a communication device 24.” Ex. 1005 at 9:10-14. *See also id.* at Fig. 1. Kelly683 discloses that the communication device 24 allows “game

unit 10 to communicate with other game apparatuses or with other computing, storage, and/or processing devices, such as a progressive bonus apparatus or server” and further discloses that the server can “regulates and coordinates prize distribution” and/or operate as a “tournament server” that assists in “operating the games or tournaments.” Ex. 1005 at 14:28-15:4-17. Kelly683 depicts an “an embodiment 100 of the present invention for implementing networked game units with the redemption system of the present invention.” Ex. 1005 at 18:14-16.

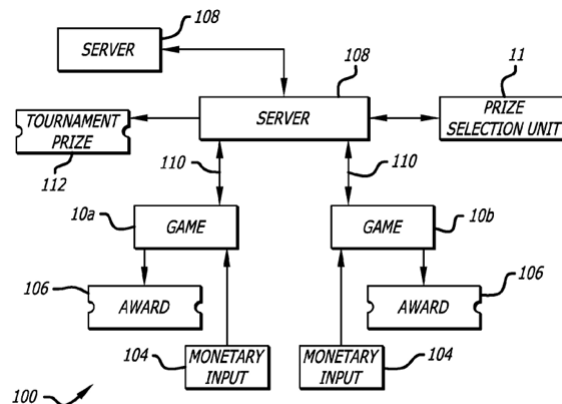


FIG. 3

74. Kelly683 discloses a “server 108” that “can be a separate device or apparatus which includes a controller, such as a microprocessor, and/or a storage device, such as a hard disk drive, memory devices, and the like.” Ex. 1005 at 18:33-36. “Server 108 is used to coordinate games among one or more individual game units and/or provide information to linked game units.” Ex. 1005 at 19:25-27. Such games can include “first person, point-of-view, virtual reality video game” where a

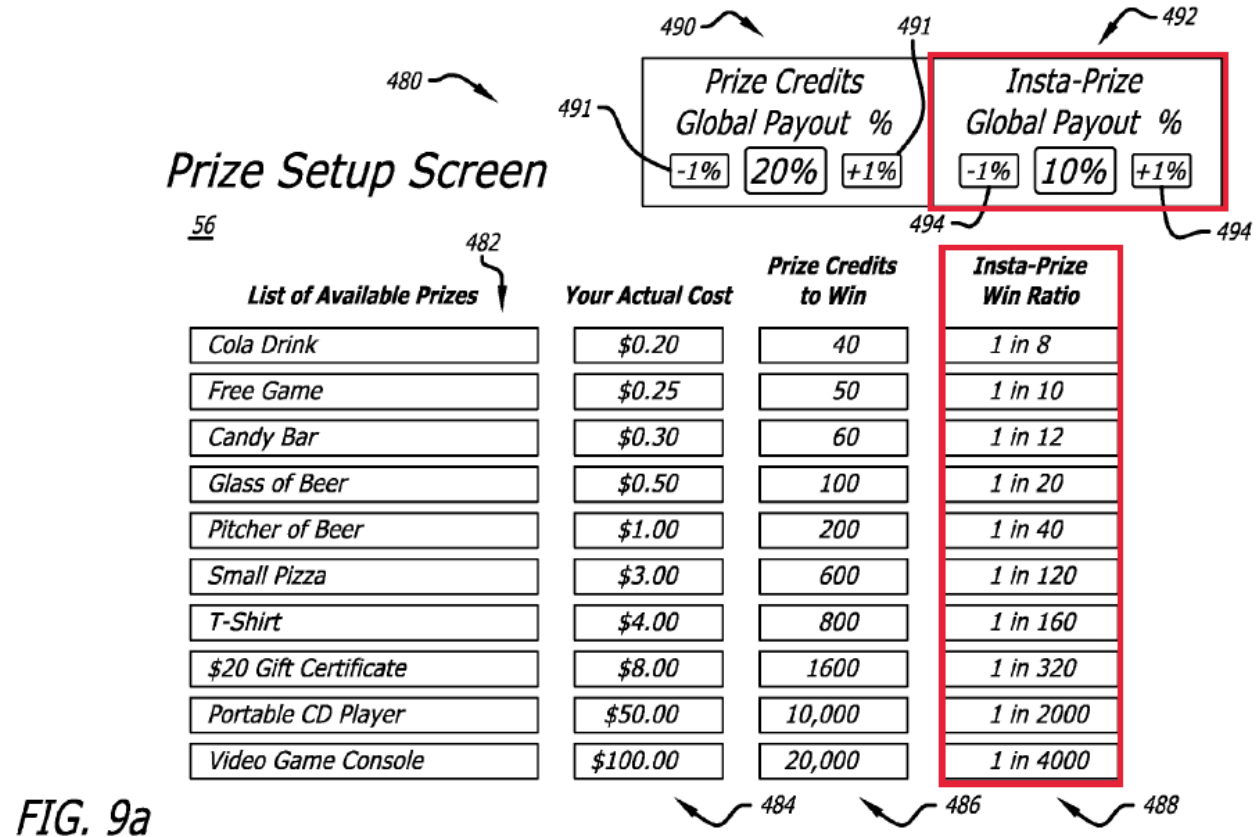
first player “on one game unit 10 a can interact in ‘real time’ with a second player of a second game unit 10 b” Ex. 1005 at 19:29-32. Other games can include “‘non-real-time’ games with players taking turns” Ex. 1005 at 19:35-36. Kelly683 discloses that “[m]any players can be included in such a networked game, from 2 to hundreds or even thousands of players.” Ex. 1005 at 19:38-39. Kelly683 goes on to explain that “game units 10 or 50 at different sites can be conveniently linked through a private wide area network (WAN) or an existing global network such as the Internet and/or the World Wide Web” Ex. 1005 at 19:59-62.

75. Kelly683 discloses that an “operator can provide cost and prize data and a desired level of profitability, and prize credit costs for prizes are automatically determined.” Ex. 1005 at 4:17-20. Kelly683 goes on to explain that its system “vastly decreases operator involvement in a prize redemption system” because:

An operator need only input desired prizes and a desired percentage of income that is to be paid back to players, and the system can automatically determine prize credit costs and win ratios for the entered prizes, which achieve the desired profitability of the game apparatus. These entered prizes and prize costs are then automatically provided to players on the game apparatus.

Ex. 1005 at 5:55-64. Kelly683 includes “a prize table 480 for use with the present invention that is displayed to the operator” and allows the operator to “modify the prize characteristics as desired and send any updated characteristics to all linked (or

all desired linked) game units over a network or other communication device.” Ex.
1005 at 34:64-35:8.



76. Kelly683 discloses that “payout percentage 492 indicates the percentage of an operator’s revenue from the games that the operator will pay back, on average, to players in the form of specific prizes based on the ratios in fields 488.” Ex. 1005 at 37:58-61. Specifically, the “[s]pecific prize win ratio fields 488 list the individual prize ratios of winning the associated prizes as a specific prize or an ‘instant prize’ during a game implemented by the game unit 10.” Ex. 1005 at 36:8-11. The operator enters the percentage number in field 492, and “the redemption

system will automatically adjust the ratios 488 to achieve the percentage value.” Ex. 1005 at 17:61-65. Kelly683 discloses a “player registration operation” by which players are provided with “an interface such as a web page which prompts the user to create a personal user name, or user identification code, and a password.” Ex. 1005 at 51:59-63. Kelly683 further discloses a “[m]onetary input device 14” that “is used to receive the monetary input that is inserted by a player into the game apparatus in the gaming environment.” Ex. 1005 at 33-35. Kelly683 explains that “‘E-cash’, ‘cybercash’ or other electronic monetary forms can be used” and that “user verification or validation can be input by the player, such as a player identification and/or password that, for example, allows a monetary value to be billed to a player or deducted from a player’s monetary account at a bank or other institution.” Ex. 1005 at 9:49-55. Kelly683 discloses that “each game offered on game unit 10 requires a predetermined number of game credits to play, and this number can vary depending on the type of game played and the options selected for a game,” and that “[e]ach game credit is equal to a fixed monetary value, such as 25 cents.” Ex. 1005 at 23:46-50. Kelly683 further discloses that players can win “prize credits” or “ticket credits” from games, which can be used to redeem prizes, but also to “‘buy’ additional games on a game unit 10, e.g., convert prize credits to game credits.” Ex. 1005 at 23:59-61; 30:12-16. Both game credits and prize credits can be stored in a “credit account,”

by which “the server 108 can store the prize credits won by a player over previous game sessions and can send this information to an individual game unit when requested by the game unit, e.g., when the player associated with a credit account plays a game on the game unit.” Ex. 1005 at 24:8-13. *See also id.* at 23:51-54 (“a player can store game credits and retrieve/use game credits from previous game sessions if a ‘game credit account’ is implemented for the player, similar to the prize credit account described subsequently.”).

**B. U.S. Patent Application Publication No. 2004/0002369
 (“Walker”) (Ex. 1006)**

77. I understand that U.S. Patent Application Publication No. 2004/0002369 to Walker et al. (“Walker”) was published on January 1, 2004 from an application that was filed on May 1, 2003.

78. In my opinion, Walker discloses each limitation of the challenged claims of the ’279 patent, except the *non-cash item* limitation of claim 4.

79. Walker generally describes “systems and methods [to] facilitate adjustment of a game in order to help ensure that a set of results obtained during a plurality of game plays of a game satisfy one or more predetermined criteria....” Ex. 1006 at ¶[0022]. Walker discloses that its gaming system may include a controller in communication with a plurality of remote gaming devices via a network such as

the Internet. *Id.*, ¶[0051]; *see also id.*, ¶¶[0025], [0055], [0062], [0069], [0091]-[0093].

80. Walker further discloses with respect to Figure 4, shown below, that each gaming device comprises a communications port for enabling communication. *Id.*, ¶¶[0070], [0074]. Each gaming device also comprises an output device and an input device, where the output device may be one of various types of displays, and the input device may be a scanner, keyboard, button, touch screen, microphone, or similar device. *Id.*, ¶¶[0070], [0085], [0087]. Walker further discloses that each device has a memory which stores a program for controlling the processor, and a processor which performs the instructions of the program, where the program may be loaded from a remote computer. *Id.*, ¶¶[0070], [0072], [0074].

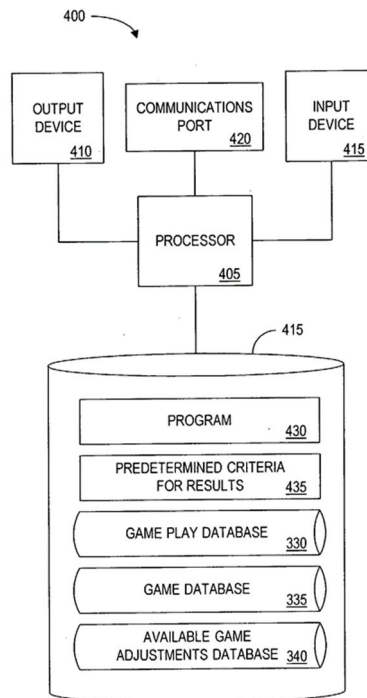


FIG. 4

Id., FIG. 4.

81. Walker explains that the system comprises a controller, shown in Figure 3 below, which may comprise a server computer that manages the system and is in communication with one or more gaming devices. *Id.*, ¶[0062]. Walker discloses that the controller comprises a processor and memory to process and store information, such as the program for controlling the processor. *Id.*, ¶¶[0064]-[0065].

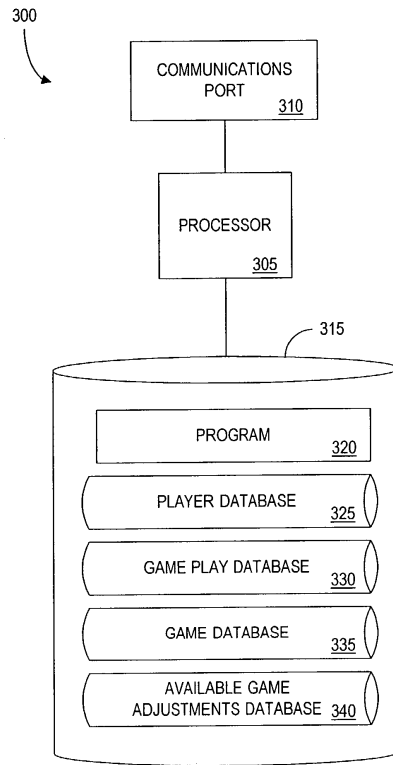


FIG. 3

Id., FIG. 3.

82. Walker discloses that the controller's memory may store a plurality of databases, including a player database which stores player information such as player name/identifiers, financial account information, and skill level. *Id.*, ¶[0067], [0098], [0100], [0103]-[0104]. Walker also discloses a game play database which may be used to track results and record information on game outcomes for various players, games, etc. *Id.*, ¶¶[0109]-[0110], [0118]-[0119].

83. To initiate game play, Walker discloses that “the controller...may receive a selection of a game that a player would like to play” and that “a player may use a player device or a gaming device to select a game that he would like to play from a list of available games.” *Id.*, ¶[0219]. Walker explains that “the controller may...direct the gaming device to initiate the requested game.” *Id.*, ¶[0220]. Walker discloses that game play may occur using alternate currencies such as electronic credits as an entry fee, e.g., a single game play may cost \$0.25 or ten electronic credits. *Id.*, ¶¶[0196]-[0197]; *see also id.*, ¶[0089]. Walker further discloses that the electronic credits through purchase using money or other form of consideration. *Id.*, ¶[0197].

84. Walker discloses that the controller may award prizes to players to as a result of game play, where a prize may be any form of consideration (e.g. money, products, services). *Id.*, ¶[0223]. Walker explains that whether prizes are awarded may be determined by various game rules. For example, Walker defines a “formula [that] may be used to convert points to credits, money or some other currency used to purchase prizes.” *Id.*, ¶[0229]. Walker also describes prize structures in which “a first prize corresponds to a first range of scores that a player may achieve in one or more plays of the game (e.g., a score of 500-1000 points) while a second prize

corresponds to a second range of scores that a player may achieve in one or more game plays of the game (e.g., 1001-1500 points).” *Id.*, ¶[0265].

85. Walker explains that its system facilitates adjustment of a game to help ensure that a set of results obtained during game play satisfies one or more predetermined criteria which represent statistics or parameters achieved by the system as a whole. *Id.*, ¶¶[0022]-[0023]. For example, the system may determine whether a set of results for a game has a variance or standard deviation that meets a predetermined range. *Id.*, ¶[0024]. Walker discloses that the game may be adjusted to meet the predetermined conditions (e.g., variance, standard deviation) by adjusting one or more parameters, each of which comprises some rule of the game that has an associated value and affects the result (e.g., prize awarded) of a game play of the game. *Id.*, ¶[0028]. For example, such parameters may include factors affecting game difficulty, number of points awarded for particular achievements, factors affecting player’s ability to score appoints, rules of a game, factors affecting duration of a game, etc. *Id.*, ¶¶[0155]-[0166]. Walker discloses that the predetermined criteria and game parameters may be stored in the controller’s memory. *Id.*, ¶[0082]; *see also id.*, ¶¶[0067], [0106].

86. Walker explains that the controller may use the predetermined criteria and game parameters in the course of game play by determining whether a selected

set of results meets the predetermined criteria (*id.*, ¶¶[0261]-[0264]), and if necessary, adjusting the game by “(i) determining the at least one goal of the adjustment; (ii) determining the one or more game parameters to be adjusted; (iii) determining a respective new value for each of the one or more game parameters to be adjusted; and (iv) executing the adjustment” (*id.*, ¶[0267]).

C. U.S. Patent No. 5,970,143 (“Schneier143”) (Ex. 1008)

90. I understand that U.S. Patent No. 5,970,143 to Schneier et al. (“Schneier143”) issued on October 19, 1999 from an application that was filed on August 8, 1996.

91. In my opinion, Schneier143 discloses the *non-cash item* of claim 4 absent in Walker.

92. Schneier143 discloses how game credits can be used to advance levels in a game: “A player might be charged one credit to explore any of the first ten levels of a game, while any of the additional five bonus levels could be explored at a cost of one credit each.” Ex. 1008 at 63:13-16. Schneider 143 also discloses how game credits can be used to obtain special items to advance levels: “while exploring a ten-level dungeon, the player could be charged an additional credit for the use of a special weapon, access to a map of the dungeon, or hints on avoiding traps.” *Id.*, 63:16-19.

IX. CLAIM CONSTRUCTION

93. I have applied the plain meaning of the terms and phrases in the claims in my analysis, as a POSITA would have understood those terms and phrases at the relevant time (around 2003). I understand that the Board will construe the claims using the same claim construction standard that would be used in district courts. My declaration will establish that the prior art meets each of the claim limitations under any reasonable construction. I have not been asked to consider any express constructions

X. OPINIONS ON GROUND 1: KELLY683 IN VIEW OF THE KNOWLEDGE OF A POSITA RENDERS OBVIOUS THE CHALLENGED CLAIMS

94. In my opinion, Kelly683 discloses each limitation in independent claim 1 of the '279 patent, except for the *player's club information* limitations of [1.b.iii], [1.b.iii.B], and [1.e], which were well-known and ubiquitous at the relevant time (*see* Section V.B).

A. A POSITA Would Have Been Motivated to Modify

95. In my opinion, a POSITA would have been motivated to modify the teachings of Kelly683 to include a player tracking program.

96. First, a POSITA would have recognized that the player tracking system would have promoted player engagement in Kelly683. A POSITA would have understood that player tracking programs were well-known marketing methods by

2003. A POSITA would have understood that “it is desirable to encourage players to use their player tracking cards during game play.” Ex. 1007 at ¶[0010].

97. “These loyalty incentives provide a way to maintain a player’s interest in play games at a particular casino.” *Id.* This is why “[p]layer tracking cards and player tracking programs have become a de facto marketing method at casinos.” *Id.*, ¶[0009].

98. Second, a POSITA would have been motivated to include the player tracking system to advance the objective of Kelly683 to increase revenue. Kelly683 explains, “[t]he availability of specific prizes and tournament play on the game unit 10 tends to cause greater player interest and involvement and thus increases the game's earnings.” Ex. 1005 at 25:10-12.

99. By encouraging players to continue game play through incentives, these programs also increase the amount of money that players spend on game play, thus increasing revenue.

100. Third, a POSITA would have been motivated to implement a player tracking program in the system of Kelly683 to improve the user experience.

101. A POSITA would have recognized that player tracking programs provides information that allows operators to customize the experience to the user. For example, “the traditional player tracking programs can be used even more

effectively to maintain player interest in the games, and to provide gaming establishments with valuable information that allows them to better serve their players.” Ex. 1007 at ¶[0010].

B. A POSITA Would have Had a Reasonable Expectation of Success

102. In my opinion, a POSITA would have been able to implement the well-known player tracking system into the game system of Kelly683 with a reasonable expectation of success.

103. First, Kelly683 already tracks information specific to the player. Including player’s club information would have merely required associating additional information to the player’s account, for example, by adding another row or table to a database.

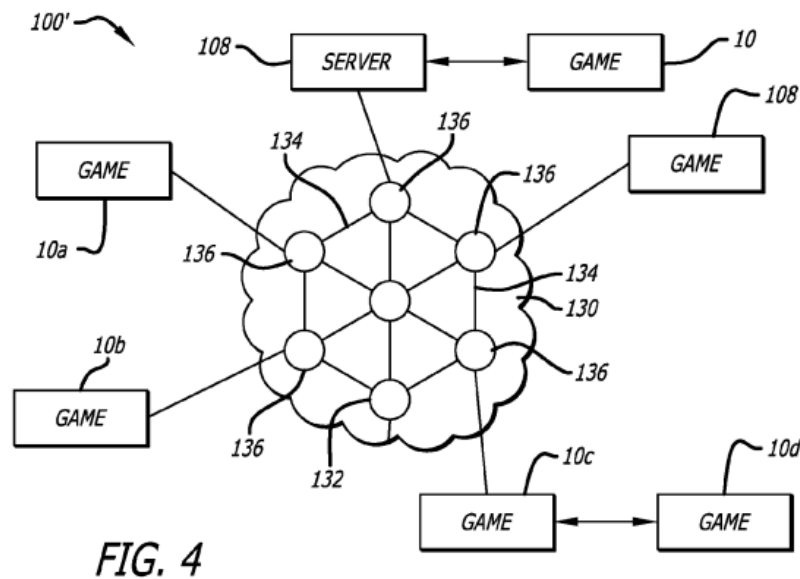
104. Second, it would have involved a combination of known technologies (processors, memory) according to known methods (programming) to yield the predictable result of adding more functionality to an object in the game—namely, player information.

C. Independent Claim 1

1. **Preamble:** *“A system for dynamically varying game play parameters in an electronic environment, over a communications network between multiple users of the system at multiple locations and a remote location including a play engine, the users utilizing communication devices, the communication devices having input capability and generate an output corresponding to the input, comprising:”*

105. To the extent the preamble is limiting, it is my opinion that Kelly683 discloses the preamble.

106. Kelly683 discloses *a system for dynamically varying game play parameters in an electronic environment, over a communications network between multiple users of the system at multiple locations*. Kelly683 “generally relates to gaming systems and more particularly pertains to network gaming systems with prize redemption capabilities.” Ex. 1005 at 1:31-37. In particular, the “gaming system includes a casino game server and a plurality of casino games connected via a network.” Ex. 1005 at Abstract, Fig. 4 (below).



107. A POSITA would have understood that the server and game units create a system in an electronic environment because servers and game units are electronic components in the system. In particular, Kelly683 explains that “the server can be one or more personal computers, ‘workstations,’ mainframe computers, or other types of computers or processors.” Ex. 1005 at 18:38-40. Similarly, Kelly683 explains that “game units can be *electrically coupled* by cables or wires and otherwise be physically separated from the server, or the game units can be physically coupled to the server.” Ex. 1005 at 18:41-43. “For example, game unit 50 can include a ‘network computer’ which typically includes lower cost components than stand-alone PC’s and which can utilize processors and software

over a network to do many of computing tasks for the user of the computer.” Ex. 1005 at 17:66-18:1.

108. Kelly683 further describes the system that includes a server 108 as well as one or more game units 10 coupled to that server in Figure 3 (below) connected over a network. Ex. 1005 at 18:32-52.

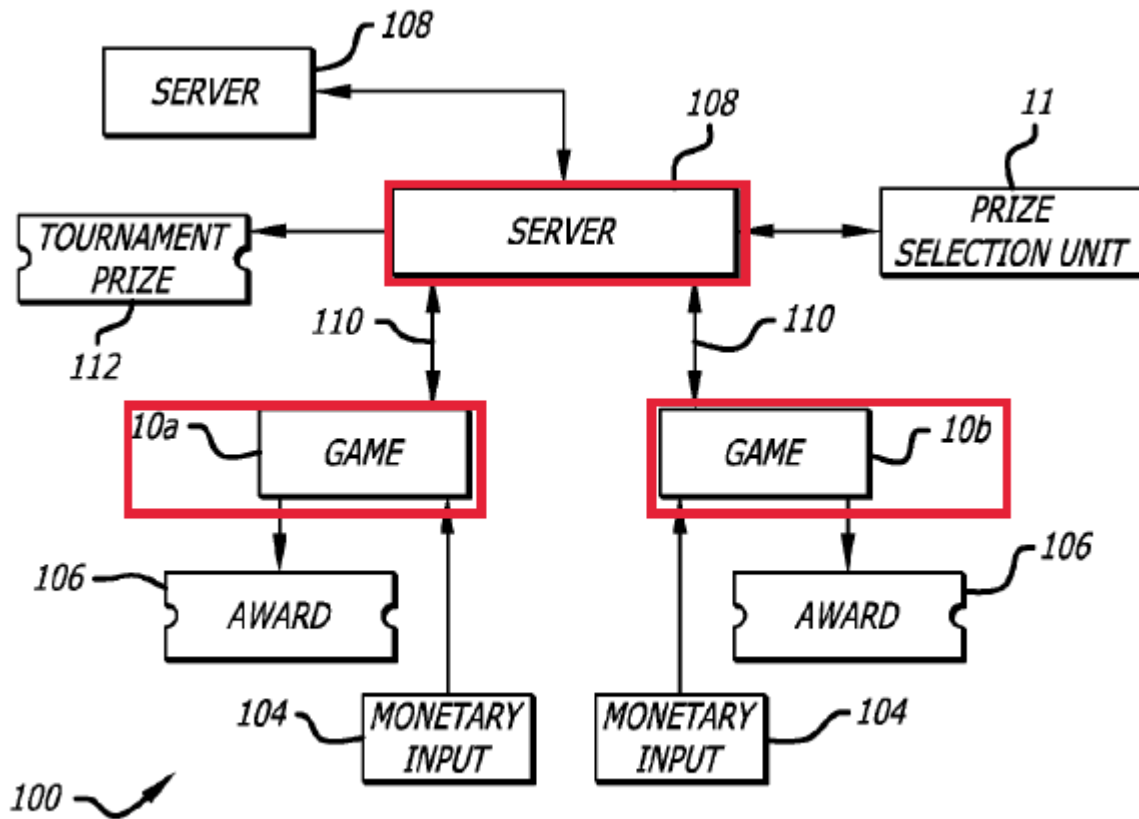


FIG. 3

Kelly683 discloses that the game units are “ideally suited for linked or networked game play utilizing a communication device 24 . . . to create a multi-apparatus game system.” Ex. 1005 at 17:61-64. This linking allows “multiple players to participate

in a game process. For example, one game unit 10 can allow a player to control one player-controlled object in a video game, while a different game apparatus linked through communication device 24 can allow a different player to control his or her own object in the same video game.” Ex. 1005 at 14:60-67.

109. Kelly683 discloses that its gaming system is *for dynamically varying game play parameters*. The ’279 patent explains that “[t]he game play parameters and prizeing structure parameters generally comprise that collection of variables that shape the game experience and define the prizeing structure.” ’279 patent at 6:5-21. “By way of example, game play parameters may include the structure and operation of the gaming experience, such as the duration of game play, number of levels, the decision points, e.g., inducements for various game play options, GLEPS or other allocation variables, such as in the number or frequency of winning outcomes, and player experiences, such as the number of near wins.” ’279 patent at 6:8-16. The ’279 patent further explains that “[i]f a predetermined game, namely one in which a player’s actions do not affect the outcome of the game, the play may be either scripted, such as where it is a priori determined, or dynamic, such as whether the game play is variable.” ’279 patent at 16:11-15.

110. Like the ’279 patent, Kelly683 discloses that the system can dynamically vary the game play structure. In particular, Kelly683 teaches altering

game play parameters at various times during the game, between levels, and between games. Kelly683 discloses that “[f]or quiz games, the difficulty of the questions at various times during the game can be adjusted so that average players will typically win a certain number of prize credits per game.” Ex. 1005 at 39:2-5. To alter parameters between levels, Kelly683 teaches that “[i]n an action game the speed of controlled objects [and] response of input devices . . . can be adjusted so that most players don’t receive a score higher than a particular value.” *Id.* at 38:65-39:1. To alter parameters between games, Kelly683 teaches that “[i]n card games, frequencies of winning combinations of cards can be adjusted.” *Id.* at 39:1-2. Similarly, for games with fixed durations, “[d]urations of games . . . can also be adjusted to achieve an average payout level of prize credits.” *Id.* at 39:5-7. Thus, a POSITA would have understood that the adjustments taught by Kelly683 can be made during the game, between levels, and between games to force certain outcomes to achieve a global payout rate (as in the case with, for example, the durations of games) or win ratios (as the case with, for example, card games).

111. Kelly683 discloses *over the communication network, between multiple users of the system at multiple locations* because Kelly683 discloses that the players using the game units can communicate over the network from different locations. Kelly683 discloses that “[p]layers from gaming environments in several different

locations can thus interact or compete simultaneously in offered games” using the game units. Ex. 1005 at 31:15-17. Kelly683 explains that its game system “can be provided as an ‘inter-site’ system, where one gaming environment or ‘site’ can be linked to game units 10 at other gaming environments or sites (such as a bar down the street, or a bar across the world) to allow additional numbers of players to interact and/or compete in networked games, tournaments, and the like.” Ex. 1005 at 19:51-57. Kelly683 goes on to explain that “game units 10 or 50 at different sites can be conveniently linked through a private wide area network (WAN) or an existing global network such as the Internet and/or the World Wide Web” Ex. 1005 at 19:59-62. Kelly683 also discloses that players “may be remotely awarded the tournament prize from a prize distributor, e.g., the player can be sent prizes through the mail or delivery service, a player’s bank account can be credited, and the like.” Ex. 1005 at 21:17-20. *See also id.* at 22:20-24 (“Using Internet 130 or a similar WAN, players at home can participate and interact in network games, prize redemption systems, and tournaments with players that are playing a game unit at a particular gaming environment such as a bar or arcade.”).

112. Kelly683 discloses that the players in different locations communicate over the network with remote server 108 (*a remote location*). Kelly683 explains

that the server 108 is remote from the game units, stating “game data can be stored in...a remote apparatus such as server 108.” Ex. 1005 at 39:14-16.

113. Kelly683 discloses *including a play engine* because, as I discuss in [1.c]-[1.c.iii] below, the gaming processor 12 of the game units include a software module for implementing, modifying, and utilizing variable parameters such as the game and prize structure. *See* Sections X.C.8-11 (Ground 1, Limitations [1.c]-[1.c.iii]).

114. Kelly683 discloses *the users utilizing communication devices, the communication devices having input capability* because the players utilize gaming units with inputs. The game unit of Kelly683 includes “player input device(s) 16.” Ex. 1005 at 9:10-14. *See also id.* at Figs. 1 and 2. Kelly683 discloses that “[i]nput devices 16 are used by a player or user to provide input to the game unit 10 to influence game events during a game process and to achieve one or more predetermined goals or tasks for scoring points and winning prizes or other types of awards.” Ex. 1005 at 15:62-66. Kelly683 goes on to provide examples of input controls including “buttons, a keyboard, dials, joystick controls, a touch screen, a track ball, a mouse, a gun device, a steering wheel, foot pedals, speech input through a microphone” Ex. 1005 at 10:4-6. Kelly683 also discloses that “[g]ame output devices 18 may influence the game and/or provide feedback to the player about the

current state of the game process.” Ex. 1005 at 10:49-51. Kelly683 discloses one such output device as a “video display screen” that “can provide visual feedback such as images to the player during the game process,” and later explains that “[a] preferred output device is a display screen 56.” Ex. 1005 at 10:56-58; 11:10. Kelly683 also discloses other output devices, such as score displays, lamps, lights, speakers, buzzers, alarms, motors, solenoids, or other actuators. Ex. 1005 at 10:49-11:9.

115. Kelly683 discloses *the communication devices . . . generate an output corresponding to the input* because the output provided to the user is influenced by the user’s input. For example, Kelly683 discloses that a player “can press a button to tilt a playing surface to guide a playing piece, move a joystick to control a graphical object displayed on a video screen, or toss a playing piece into a target aperture having sensors to detect the present playing piece.” Ex. 1005 at 10:7-12. Kelly683 explains that this user input “can provide a particular game command to the game processor 12, and the game processor interprets the commands and influences game states and game events in the game process accordingly.” Ex. 1005 at 10:12-15. Kelly683 goes on to explain that in a “game of skill,” “a predetermined goal, task, or objective for a game should be accomplished in a skillful manner such that an outcome of the game is determined primarily by the amount of skill of the

player.” Ex. 1005 at 10:16-20. An example of a game of skill is when “a displayed object can be skillfully aimed or directed using input devices 16 such as a joystick, buttons, a steering wheel, and the like, or to avoid other objects using skill or dexterity involving hand-eye coordination.” Ex. 1005 at 10:25-29. Kelly683 explains that “In a typical game process of game unit 10, a series of game states occur until a game conclusion is reached.” Ex. 1005 at 11:16-17. “At the game’s conclusion, the player’s performance and/or skill in the game is preferably related back to the player using one or more output devices 20 in a form such as game score and/or prize credits.” Ex. 1005 at 11:20-24.

2. [1.a]: “a processor,”

116. In my opinion, Kelly683 discloses this limitation.

117. Kelly683 discloses that each game unit has a game processor 12 that includes a microprocessor. Kelly683 discloses a “game processor 12 that implements (e.g., controls, influences, coordinates, monitors, calculates, and the like) the functions of the game unit 10 during a game process and includes several input and output functions.” Ex. 1005 at 9:15-18. “Game processor 12 preferably includes a digital microprocessor or a similar controller device, and other electronic components, which are described in further detail with respect to FIG. 1a.” Ex. 1005 at 9:27-32.

118. Kelly683 explains that the server 108's microprocessor is "similar to" the game unit 10's microprocessor—examples of which include the "Intel 8031 8-bit microprocessor" as well as "Pentium-class/power PC class microprocessors." Ex. 1005 at 18:36-38; 15:42-48. Such a microprocessor "executes a process, described by software instructions stored in memory" Ex. 1005 at 15:48-49.

3. [1.b]: "memory to:"

119. In my opinion, Kelly683 discloses this limitation.

120. The game processor 12 of Kelly683 "includes a microprocessor 28, random access memory (RAM) 30, read-only memory (ROM) 32" Ex. 1005 at 15:38-40. *See also id.* at Fig. 1a, 11. Kelly683 discloses that "[m]icroprocessor 28 executes a process, described by software instructions stored in memory, which recognizes a game command from player input devices 16." Ex. 1005 at 15:48-51.

121. The game processor is coupled to RAM and ROM (*memory*) as shown in Fig. 1a. EX1005, 9:27-30, 15:40-16:3, Fig. 1a. Kelly683's "software instructions 'can be stored in a 'computer readable medium', which, by way of example, includes memory such as RAM and ROM, magnetic disks" Ex. 1005 at 15:51-56. Kelly683 goes on to explain that the storage medium may be in the form of "a hard disk drive." Ex. 1005 at 15:56-59. Kelly683 explains that "[m]icroprocessor 28 is coupled to RAM 30" and that "[m]ethods for coupling RAM 30 and ROM 32

to the microprocessor 28 by bus 36 including data, address, and control lines are well-known to those skilled in the art.” Ex. 1005 at 47:12-21. *See also id.* at 18:33-36 (“server 108 can be a separate device or apparatus which includes a controller, such as a microprocessor, and/or a storage device, such as a hard disk drive, memory devices, and the like.”).

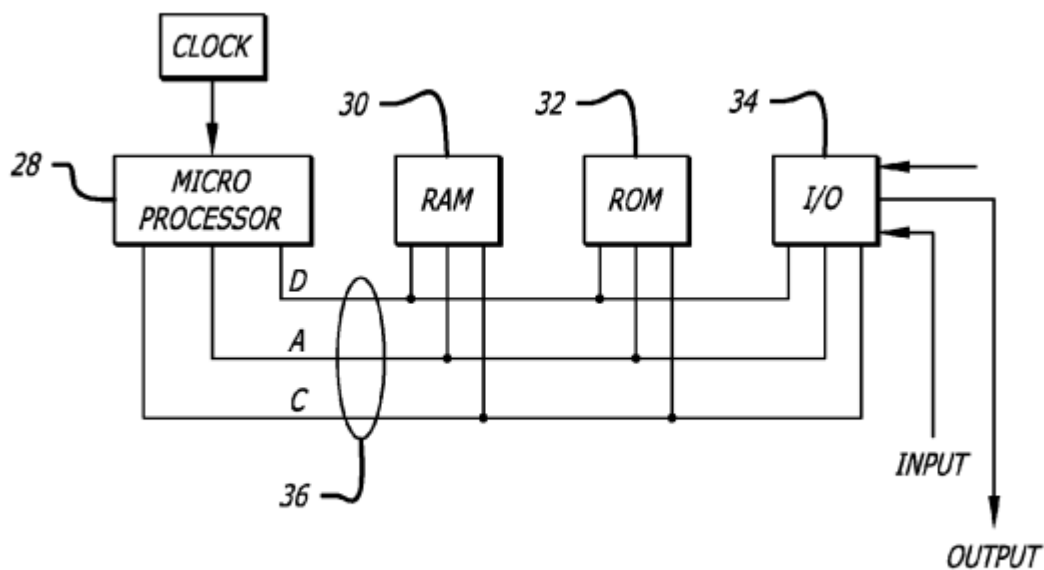


FIG. 1a

Ex. 1005, Fig. 1a

4. [1.b.i]: “store mandated and programmable variable parameters for use in the course of game play,”

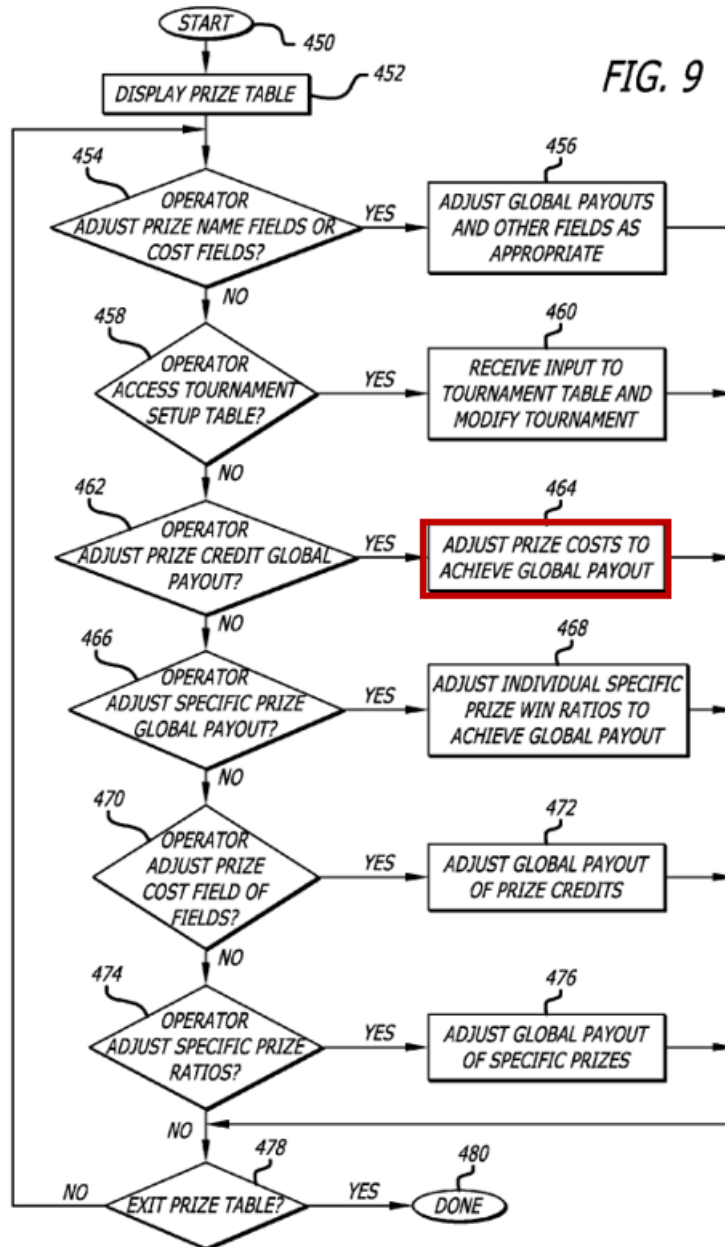
122. In my opinion, Kelly683 discloses this limitation.

123. As I discuss in [1.b.i.A] below, Kelly683 discloses a global payout percentage and win ratios (*mandated . . . parameters*) that must be satisfied during game play (*for use in the course of game play*), as well as game and prize parameters that may be set (*programmable variable parameters*) during game play (*for use in the course of game play*). See Section X.C.5 (Ground 1, Limitation [1.b.i.A]).

124. The '279 patent discloses that the game play system includes mandated parameters that “may consist of prize pay out and win rates, and may include such factors as the minimum payout amount, the maximum payout amount, a defined percentage payout, the number of prizes, and/or the form of prizes.” Ex. 1001 at 5:11-15; *see also id.* at 5:62-67, 6:16-21.

125. Kelly683 achieves the *mandated...parameters* through adjustment of game structure or prizes. Kelly683 explains that “[t]he difficulty and thus the average prize credits awarded per game can be adjusted using a variety of techniques that depend on the type of game being played.” Ex. 1005 at 38:62-65. Thus, by increasing or decreasing the difficulty of the game, the operator can increase or decrease the global payout or adjust the win ratio. For example, Kelly683 teaches that the speed of controlled object in an action game, the frequencies of winning combinations in a card game, duration of games can be adjusted to force certain outcomes and achieve certain win ratios. Ex. 1005 at 38:58-39:7. Similarly,

Kelly683 explains that “prize cost 486 is adjusted, if necessary, to achieve the global payout entered by the operator.” Ex. 1005 at 38:40-42. Figure 9 shows adjustments to the prize structure to achieve global payout in red below.



Ex. 1005, Fig. 9

126. A POSITA would have understood that the game and prizing structure *programmable* because they are adjustable by the operator. Stated differently, the operator can program the game structure parameters to make the game more or less difficult or program the prizing structure to award more or less valuable prizes.

127. Kelly683 teaches that the game processor 12 processes and stores (*store*) the global payout percentage and win ratios (*mandated and programmable variable parameters*) in local memory. Kelly683 teaches the global payout percentage and win ratios *are stored* in the prize table. Ex. 1005 at 44:29-35, Fig. 9a. “Information in the prize table 480 can be stored locally, or by the central location and can be downloaded when needed.” Ex. 1005 at 43:21-23.

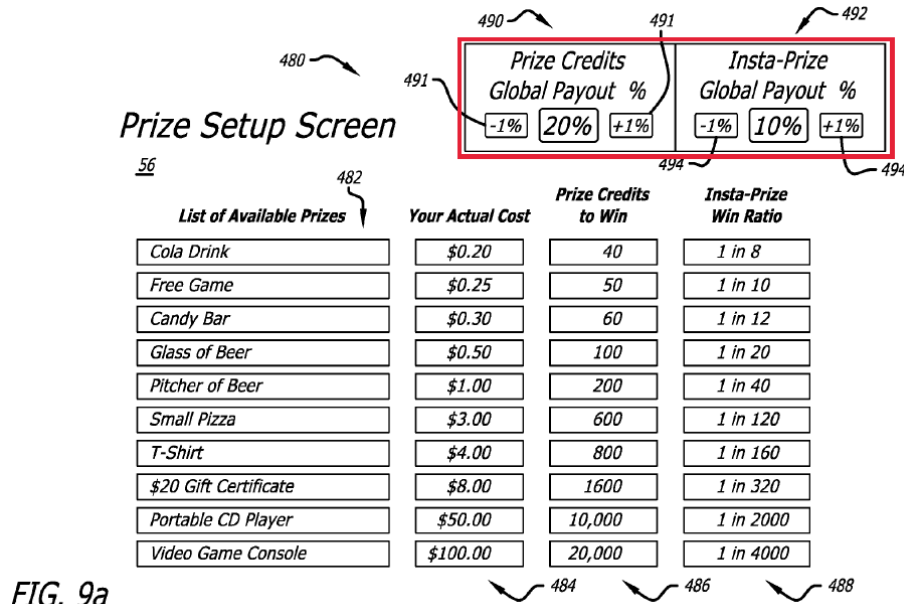
128. A POSITA would have understood that the gaming system of Kelly683 uses the global payout percentage and win ratios, as well as the gaming structure and prizing structure *for use in the course of game play*, particularly since the gaming structure and prizing structure are adjusted throughout game play to achieve the global payout percentage and win ratios, as I discussed in the preamble with respect to *dynamically varying game play parameters*. See Section X.C.1 (Ground 1, Preamble).

5. [1.b.i.A]: *“wherein, the mandated parameters represent parameters which must be achieved by the system as a whole, and the programmable variable parameters represent parameters characterizing at least one of: a game structure and a prizing structure”*

129. In my opinion, Kelly683 discloses this limitation.

130. The '279 patent discloses mandated parameters that “may consist of prize pay out and win rates, and may include such factors as the minimum payout amount, the maximum payout amount, a defined percentage payout, the number of prizes, and/or the form of prizes.” Ex. 1001 at 5:11-15.

131. Like the '279 patent, the gaming system of Kelly683 includes a “global payout percentage” (Ex. 1005 at 5:20-29, 37:27-38:15, 38:58-39:7, Fig. 9a) and “win ratios” (Ex. 1005 at 5:3-5, 5:30-43, 5:55-6:3). Again, like the '279 patent, the payout and win ratios may include such facts as a defined percentage payout, the number of prizes and form of prizes, as Kelly683 explains that “[t]he term ‘payout’, as used herein, is intended to refer to any transfer of monetary value given back to the player of the game apparatus or game system. Most commonly for redemption systems, payout is in the form of prizes, but it may also be cash, unredeemed tickets, prize credits, and the like.” Ex. 1005 at 37:23-27.



Ex. 1005 at Fig. 9a

132. Kelly683 discloses that the global payout percentage and win ratios *represent parameters that must be achieved by the system as a whole*. “The prize payout percentage 490 indicates the payout of the game unit 10 as a percentage of an operator’s revenue from the game that the operator will pay back, on average, to players in the form of prize credits or prizes purchased using prize credits.” Ex. 1005 at 37:35-39. Similarly, Kelly683 explains that “the specific prize ratios 488 are automatically determined by the redemption system based on other operator input such as actual cost 484 and the specific prize global win ratio 492.” Ex. 1005 at 37:11-14.

133. Kelly683 discloses *variable parameters* that *represent parameters characterizing at least one of: a game structure and a prizing structure*. The '279 patent discloses that a “variable parameter may be the game structure itself, such as in the use of decision points, numbers of levels of game play, and/or duration of game play.” Ex. 1001 at 5:54-57. The variable parameters may also be a prizing structure, which “may include the desired payout amount, GLEPS or other allocation variables, the frequency of wins (1:X), overall number of winners and prizing structure and allocation of prizes.” Ex. 1001 at 6:17-21.

134. Like the '279 patent, the gaming system of Kelly683 uses both a *game structure* and *prizing structure*. For *game structure*, Kelly683 explains that the global payout percentage and win ratio can be achieved by adjusting the game structure:

For example, in an action game the speed of controlled objects, response of input devices, and the like, can be adjusted so that most players don't receive a score higher than particular value. In card games, the frequencies of winning combinations of cards can be adjusted. In quiz games, the difficulty of the questions at various times during the game can be adjusted so that average players will typically win a certain number of prize credits per game. Durations of games, which have a fixed duration, can also be adjusted to achieve an average payout level of prize credits.

Ex. 1005 at 38:65-39:7. For *prizing structure*, Kelly683 discloses that the gaming system will automatically adjust the prizing structure to meet the desired goals:

[T]he redemption system of the present invention vastly decreases operator involvement in a prize redemption system and the overhead of maintaining a prize structure for redemption games. An operator need only input desired prizes and a desired percentage of income that is to be paid back to players, and the system can automatically determine prize credit costs and win ratios for the entered prizes, which achieve the desired profitability of the game apparatus. These entered prizes and prize costs are then automatically provided to players on the game apparatus. This reduces the operator's need to update prizes and prize costs, and it provides a far more exact system for maintaining prizes and achieving a desired profitability of offered games, thereby reducing operating and maintenance costs of redemption games and allowing redemption games to be provided in the non-traditional gaming environments.

Ex. 1005 at 5:55-6:3.

135. Specifically, Kelly683 also discloses “adjust[ing] game difficulty so that, on average, a predetermined number of prize credits will be awarded for each game played” or more specifically adjusting the “[d]uration of games” in order “to achieve an average payout level of prize credits.” Ex. 1005 at 38:62-39:7. Kelly683 also discloses “specific prize win ratios 488” that are “adjusted to achieve the desired global percentage 492 input by the operator.” Ex. 1005 at 40:2-4.

136. Kelly683 discloses *variable parameters* that represent parameters characterizing *game structure*. See also '164 patent 6:69 (variable parameters may be the game structure, such as duration of game play). Figure 9a of Kelly683 is an example of “a prize table 480” that is “displayed to the operator” so that “the operator would modify the prize characteristics as desired and send any updated characteristics to all linked (or all desired linked) game units over a network or other communication device.” Ex. 1005 at 34:64-35:8. In particular, Kelly683’s prize table 480 includes “the prize credit global payout percentage 490.” Ex. 1005 at 35:9-14. This field “allows an operator to view and to change a global payout percentage based on all of the prizes in the prize list 482, their actual cost 484, and their purchase cost 486.” Ex. 1005 at 37:19-23.

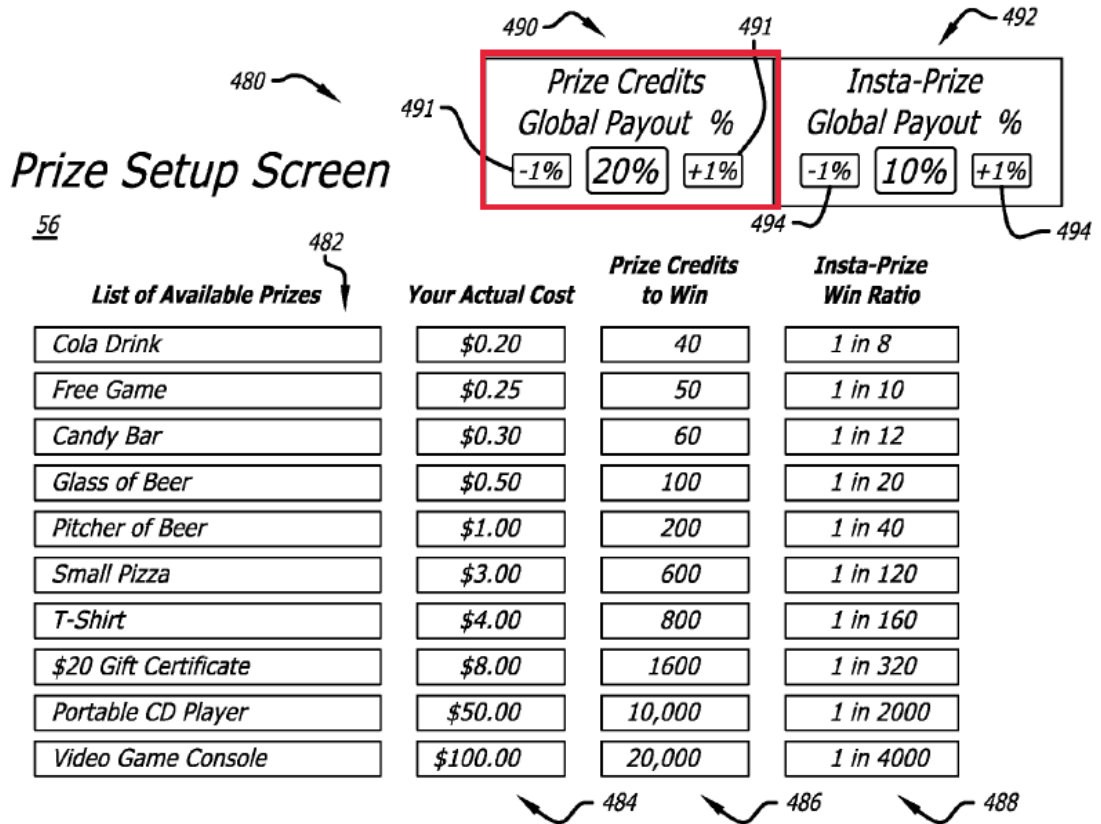


FIG. 9a

137. Kelly683 explains that “[a] prize actual cost, A, which is provided by the operator, is divided by the global payout percentage entered by the operator, P, where $R=A/P$.” Ex. 1005 at 38:44-47. “The resulting value, R, represents the amount of revenue required to achieve the desired payout percentage.” Ex. 1005 at 38:49-50. “Once the required revenue, R, is determined for a particular prize, then the average number of prize credits or tickets, T, that are known to be awarded per game is determined (average ticket payout).” Ex. 1005 at 38:55-58. Kelly683 discloses that it is then “possible for the game’s manufacturer to adjust game difficulty so that, on average, a predetermined number of prize credits will be awarded for each game

played.” Ex. 1005 at 38:58-60. Kelly683 provides a number of examples of adjusting the game difficulty, including adjusting the duration of timed games: “Durations of games, which have a fixed duration, can also be adjusted to achieve an average payout level of prize credits.” Ex. 1005 at 38:6. Thus, Kelly683 discloses adjusting a *variable parameter* that represent parameters characterizing *game structure*—the duration of games—in order to achieve the global payout percentage inputted by the operator.

138. Kelly683 discloses *variable parameters* that represent parameters characterizing *prizing structure*. See also ’164 patent 6:35-39 (prizing structure parameters may include the frequency of wins). Kelly683’s prize table 480 also includes “the specific prize win percentage 492.” Ex. 1005 at 35:9-14.

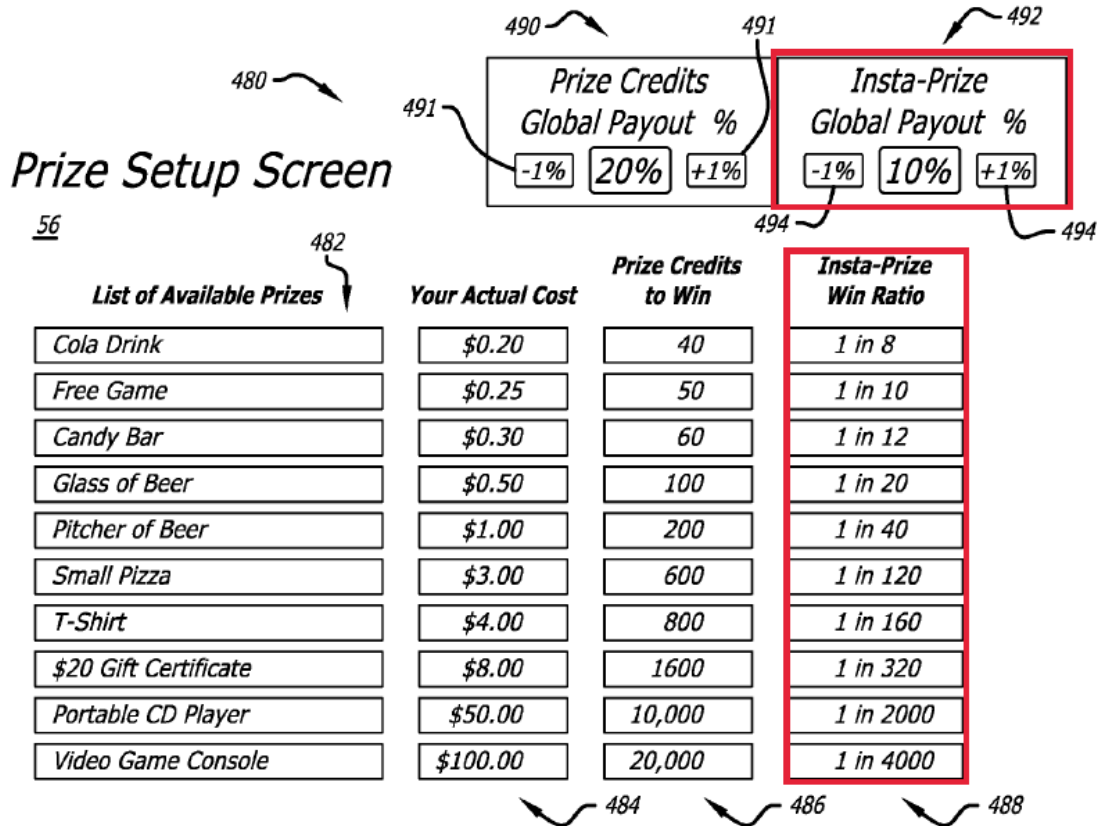


FIG. 9a

139. The specific prize global payout percentage 492 field “allows an operator to view and to change a global payout percentage that is based on all of the prizes and prize ratios in fields 488,” and “indicates the percentage of an operator’s revenue from the games that the operator will pay back, on average, to players in the form of specific prizes based on the ratios in fields 488.” Ex. 1005 at 37:54-61. Specifically, “this percentage number in field 492 is entered by the operator, and the redemption system will automatically adjust the ratios 488 to achieve the percentage value.” Ex. 1005 at 37:62-65. The “[s]pecific prize win ratio fields 488 list the individual prize ratios of winning the associated prizes as a specific prize or an

‘instant prize’ during a game implemented by the game unit 10.” Ex. 1005 at 36:8-11. *See also id.* at 5:31-35 (“... a win ratio for each of the prizes in terms of how frequently the particular prize is awarded when a specific prize goal is met. The win ratio is determined in accordance with the operator’s desired amount of payout.”). Thus, Kelly683 discloses adjusting a *variable parameter* that represent parameters characterizing *prizing structure*—frequency of wins—in order to achieve the global payout percentage inputted by the operator.

140. As I discussed in [1.b.i], the variable parameters are *programmable*. *See* Section X.C.4 (Ground 1, Limitation [1.b.i]).

6. [1.b.ii]: “record game play information regarding particular game play events, and”

141. In my opinion, Kelly683 discloses this limitation.

142. Kelly683 discloses storing (*record*) game play information provided by the game processor includes information on game play events based on the user input (*game play information regarding particular game play events*) in the local memory. Ex. 1005 at 10:12-15 (“Each type of user input can provide a particular game command to the game processor 12, and the game processor interprets the commands and influences game states and game events in the game process accordingly.”); *see also id.*, 1:44-46, 9:62-66, 46:32-37, 46:49-52.

143. Further, Kelly683 discloses recording which games the user previously played. Ex. 1005 at 6:24-28 (“receiving an identifier from the game apparatus of a particular user selected from a group of identifiers including: (1) a user identifier relating to the user (i.e., player) of the network gaming and prize redemption system; (2) a game identifier relating to a particular game played by the user of the network gaming system;”); *see also id.* at 39:8-15.

7. [1.b.iii]: “*store player's club information, including at least*”

[1.b.iii.A]: “*(i) player identification information, and*”

[1.b.iii.B]: “*(ii) the amount of player points,*”

144. In my opinion, Kelly683 in view of the knowledge of a POSITA renders obvious these limitations.

145. Kelly683 discloses player’s account information that includes a user identification code (*player identification information*) and tracks a player’s credits and prizes. Ex. 1005 at 59:66-60:1 (“a current amount of available credits of a particular user based on the user identification code”); *see also id.*, 30:34-40, 50:20-22. 50:35-37. Although Kelly683 does not expressly disclose *player’s club information* or *amount of player points*, a POSITA would have been motivated and obvious to implement these features.

146. As I explained in the Technology Overview, player tracking programs (*player's club*) including player tracking points (*player points*) were a well-known way of maintaining a game player's interest which "provide rewards, or comps, to players in proportion to the player's level of patronage (e.g., to the player's playing frequency and/or total amount of game plays at a given casino)." Ex. 1007 at ¶¶[0008]-[0009]; Section V.B.

147. A POSITA would have been motivated to modify Kelly683's gaming system to store as part of the player's account the player tracking program information (*store player's club information*) including at least the user identification code (*player identification information*) and the amount of player tracking points (*the amount of player points*) as was well-known at the relevant time.

148. A POSITA would have understood that this would have enhanced the goal of Kelly683 to increase player engagement and revenue by maintaining player interest by providing more prizes. Ex. 1005 at 25:10-12 ("The availability of specific prizes and tournament play on the game unit 10 tends to cause greater player interest and involvement and thus increases the game's earnings."), 54:23-27.

149. A POSITA would have had a reasonable expectation of success in modifying Kelly683's gaming system because Kelly683 already stores and tracks similar information with respect to credits. Notably, Kelly683 already uses *player*

identification information (user identification code), and storing the additional player tracking program information would merely require adding a few additional rows or tables in a database of Kelly683.

150. In my opinion, Kelly683 also discloses recording player identification information. Ex. 1005 at 6:24-28 (“receiving an identifier from the game apparatus of a particular user selected from a group of identifiers including: (1) a user identifier relating to the user (i.e., player) of the network gaming and prize redemption system; (2) a game identifier relating to a particular game played by the user of the network gaming system;”); *see also* 6:54-64 (“In one version of this embodiment, the selected identifier may include the user identifier so that the play of the portion of the computer-implemented game is precluded based on regulations in a geographic location in which the user resides. In another version of this embodiment (which may be used independently or in conjunction with the previous version), the selected identifier may include the user identifier so that the play of one portion of the computer-implemented game is precluded based on the age of the user, or other parental controls.”).

151. Kelly683 discloses that registration user information of the remote users is processed and stored. Kelly683 discloses that “[a]t anytime, the user may update any of the foregoing profile information.” Ex. 1005 at 52:5-6. Before

updating this profile information, Kelly683 discloses that a user may be required to first enter a “user identification code, and/or the password” indicating that the registration user information is processed and stored. Ex. 1005 at 52:8-10.

152. In my opinion Kelly683 also discloses recording the number or amount of player points, *i.e.* prize credits. Ex. 1005 at 5:20-25 (“For prizes won by prize credits and selected by a player, the prize information is a prize cost for each of the prizes in terms of prize credits.”); *see also id.* 6:40-45 (“In an embodiment where prize credits are awarded which a user may redeem for a prize, a number of the prize credits awarded to the user may be based on the selected identifier. This way, certain particular users may be attracted to the network gaming system by awarding these users extra prize credits.”).

153. Figure 16 of Kelly683 discloses a functional diagram depicting various “operations” of a server, including “a purchase game credits operation 1104.” Ex. 1005 at 51:31-38.

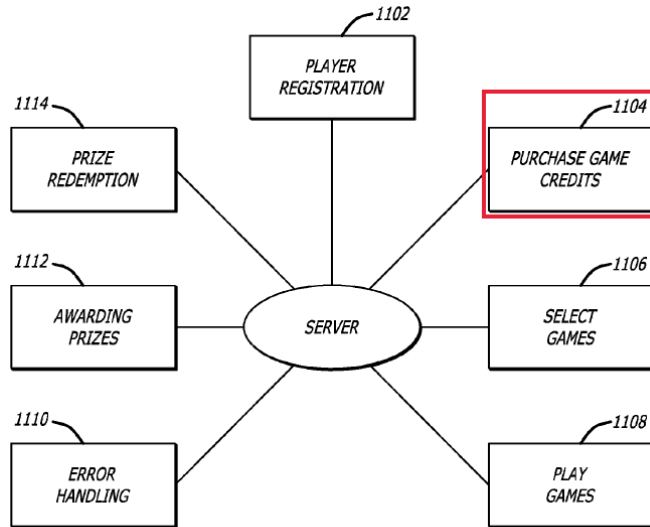


FIG. 16

Kelly683 discloses that “[s]uch game credits are used to play games in order to win prize credits.” Ex. 1005 at 52:40-41. *See also id.* at Fig. 18; (“Once it is ascertained that registration is complete, the purchase of the game credits is permitted in operation 1304.”).

8. [1.c]: “a play engine coupled to the memory and operating with the processor to:”

154. In my opinion, Kelly683 discloses this limitation. The ’279 patent does not use the term *play engine*. I have been asked that a *play engine* includes the components that implement the functions recited in [1.c.i]-[1.c.iii].

155. As discussed in [1.a]-[1.b], the game units have game processor 12 and memory. Sections X.C.2-3. As discussed in limitations [1.c.i]-[1.c.iii] below, a

POSITA would have understood that the game processor 12 functions to implement, modify, and utilize the game and prizing variable parameters (as described in limitations [1.c.i-iii] in Sections X.C.9-11), and would have been performed by a software module (*play engine*). Implementing, modifying, and utilizing game and prizing variable parameters would be functions in the code of a program. A POSITA would understand that this code is a software module.

156. A POSITA would have also understood that the *play engine* would be *operating with the processor* since game processor 12 would be executing the software module using its microprocessor, and would be *coupled to the memory* since it would control functions that involving game data stored in memory. *Id.*

9. [1.c.i]: “implement a first set of programmable variable parameters to provide a first game play experience,”

157. In my opinion, Kelly683 discloses this limitation.

158. Kelly683 discloses multiple ways of *implement[ing] a first set of programmable variable parameters to provide a first game play experience*. One way uses the *game structure* (see Section X.C.5) where *a first game play experience* is less difficult. Kelly683 discloses that “[i]t is possible for the game’s manufacturer to adjust game difficulty so that, on average, a predetermined number of prize credits will be awarded for each game played.” Ex. 1005 at 38:58-60.

159. Another way uses the *prizing structure* (see Section X.C.5) where a *first game play experience* results in “a ‘best fit’ of prizes awarded according to the operator’s odds.” Ex. 1005 at 36:63-66. “For example, every 8,000 games, two video consoles are to be awarded.” Ex. 1005 at 37:1-3; *see also* Ex. 1001 at 16:54-17:3 (“The game play experience may be varied by changing the play probabilities. In one implementation, game play experience may utilize real world probabilities for the game play portion of the experience, but utilize other probabilities for the prizing portion of the overall game.”).

160. A POSITA would understand that the game processor implements the first set of variable parameters. Ex. 1005 at 9:15-18 (“Game processor 12 implements (e.g., controls, influences, coordinates, monitors, calculates, and the like) the functions of the game unit 10 during a game process and includes several input and output functions.”).

161. As discussed in [1.b.i] the game and prizing structure parameters (*variable parameters*) are *programmable* because the operator can adjust them. Section X.C.4 (Ground 1, Limitation [1.b.i]).

10. [1.c.ii]: “modify one or more programmable variable parameters to provide a second set of programmable variable parameters providing a second game play experience, wherein the first game play experience differs from the second game play experience, and”

162. In my opinion, Kelly683 discloses this limitation.

163. Kelly683 discloses *modify[ing] one or more programmable variable parameters* (discussed in Sections X.C.4-5, X.C.9) *to provide a second set of programmable variable parameters providing a second game play experience.*

164. First, Kelly683 discloses adjusting the parameters (*programmable variable parameters*) characterizing the *game structure* (see Section X.C.5) to provide a more difficult game play (*a second set of programmable variable parameters providing a second game play experience*). Ex. 1005 at 38:63-39:7. Kelly683 discloses that *the first game play experience differs from the second game play experience* because the second game play experience is more difficult than the first game play experience (e.g., more difficult to achieve a score higher than a particular value, frequencies of winning combinations is lower, difficulty of questions is higher). *Id.*

165. Second, Kelly683 discloses adjusting the parameters (*programmable variable parameters*) characterizing the *prizing structure* (see Section X.C.5) to provide prizes at different odds. Ex. 1005 at 36:63-37:9. “For example, every 8,000

games, two video consoles are to be awarded. If it is randomly determined that a third video console is to be awarded within, e.g., the 3,000th game, then a different prize can be awarded so that the desired odds are better met.” Ex. 1005 at 37:1-6. Kelly683 discloses that *the first game play experience differs from the second game play experience* because the play probabilities have changed. *Id.*; see also Ex. 1001 at 16:66-17:1 (“The game play experience may be varied by changing the play probabilities.”).

166. A POSITA would understand that a software module executed by game processor (*play engine*) modifies the variable parameters to provide a second set of variable parameters. Ex. 1005 at 9:15-18.

11. [1.c.iii]: “utilize the first and second programmable variable parameter sets to achieve the mandated parameters through at least the first and second game play experiences,”

167. In my opinion, Kelly683 discloses this limitation.

168. Kelly683 discloses *utilizing the first and second programmable variable parameter sets to achieve the mandated parameters through at least the first and second game play experiences* because a POSITA would have understood that the adjustment from the first to second parameters achieves the global payout or win ratios by making the game more difficult to adjusting the prizes.

169. Kelly683 discloses “[i]t is possible for the game’s manufacturer to adjust game difficulty so that, on average, a predetermined number of prize credits will be awarded for each game played.” Ex. 1005 at 38:57-58.

170. Kelly683 discloses that “[t]he difficulty and thus the average prize credits awarded per game can be adjusted using a variety of techniques that depend on the type of game being played. For example, in an action game the speed of controlled objects, response of input devices, and the like, can be adjusted so that most players don't receive a score higher than a particular value. In card games, the frequencies of winning combinations of cards can be adjusted. In quiz games, the difficulty of the questions at various times during the game can be adjusted so that average players will typically win a certain number of prize credits per game. Durations of games, which have a fixed duration, can also be adjusted to achieve an average payout level of prize credits.” *Id.*, 38:60-39:7.

171. Kelly683 discloses that “[i]n one embodiment, the random determination of whether a particular prize is to be awarded is also, modified by statistical information to create a ‘best fit’ of prizes awarded according to the operator's desired odds; ... If it is randomly determined that a third video console is to be awarded within, e.g., the 3,000th game, then a different prize can be awarded so that the desired odds are better met.” *Id.*, 36:63-37:6.

172. Kelly683 discloses that “[i]n networked embodiments ... the server 108 can store the prize credits won by a player over previous game sessions and can send this information to an individual game unit when requested by the game unit, e.g., when the player associated with a credit account plays a game on the game unit. Thus, a player can access his or her credit account by playing any individual game unit connected to the server that stores that player's credit account information.” *Id.*, 24:4-15.

12. [1.d]: “a decision engine coupled to the memory and operating with the processor to:”

173. In my opinion, Kelly683 discloses this limitation. The term *decision engine* appears once in the '279 patent, explaining that the “decision engine” uses data—including “user specific play, such as the number of times a game is played during one contact or session, whether the player continuously plays that game without interruption, e.g., diverting to other forms of entertainment or information, and the frequency between player visits, such as to a sponsoring website”—“ to optimize the prizing structure for a desired end goal, e.g., maximizing game play and therefore sales of game plays.” Ex. 1001 at 44:57-65.

174. Kelly683 discloses a process for “providing statistical information” (*a decision engine for performing game analytics on the game play*). Ex. 1005 at 32:27-33. This statistical information includes the “number of times the player has played”

(Ex. 1005 at 25:23-24), “the time the player took to play a game, the number of times a player has participated in similar previous tournaments, and the like” (Ex. 1005 at 32:27-33), “the number of games played and the number of times the specific prize goal was hit” (Ex. 1005 at 40:33-45), and “the amount of times a particular game is played, the number of times that difference games are played, or by achieving a game-related goal” (Ex. 1005 at 56:49-51). Kelly683 discloses that “[t]he ‘hit ratio’ is the fraction of games played, on average, in which a specific prize goal is met and thus a specific prize is won.” Ex. 1005 at 40:19-21. Kelly683 explains that “some games may have much different hit ratios than other games depending on the nature of the game action, randomness, and the like, and the difficulty of the specific prize goal” that “normalization factor” can be used, which “indicates how much an individual ratio 488 should be adjusted based on the particular game played.” Ex. 1005 at 40:59-41:9. Kelly683 explains that while the normalization factor “can be estimated initially,” “[a]fter a number of games have been played on a game unit 10, the normalization factor for each game can be based on the actual hit ratio determined for each game.” Ex. 1005 at 41:30-33.

175. The gaming system of Kelly683 uses this statistical information to optimize the prizing structure for a desired goal. *See, e.g.*, Ex. 1005 at 36:63-66 (“In one embodiment, the random determination of whether a particular prize is to be

awarded is also modified by statistical information to create a ‘best fit’ of prizes awarded according to the operator's desired odds.”).

176. Kelly683 discloses *a decision engine coupled to the memory and operating with the processor* because POSITA would have also understood that the *decision engine* would be *operating with the processor* since game processor 12 would be executing the process using its microprocessor, and would be *coupled to the memory* since it would control functions that involving game data stored in memory. *Id.* Ex. 1005 at 9:15-19 (“Game processor 12 implements (e.g., controls, influences, coordinates, monitors, calculates, and the like) the functions of the game unit 10 during a game process and includes several input and output functions.”)

177. Kelly683’s disclosures about adjusting game difficulty involves the storing of statistical information on gameplay. For Kelly683’s example involving games of a fixed duration, statistical information on the duration of games would be needed to adjust the game duration to achieve an average payout level of prize credits. Ex. 1005 at 39:5-7. For Kelly683’s example involving the difficulty of questions in a quiz game, statistical information on answers to questions is needed to adjust the difficulty so that average players will typically win a certain number of prize credits per game. Ex. 1005 at 39:2-5.

178. Kelly683 discloses *a decision engine for performing game analytics on the game play* by storing and calculating information related to hit ratios. Kelly683 discloses that “[t]he ‘hit ratio’ is the fraction of games played, on average, in which a specific prize goal is met and thus a specific prize is won.” Ex. 1005 at 40:19-21. Kelly683 explains that “some games may have much different hit ratios than other games depending on the nature of the game action, randomness, and the like, and the difficulty of the specific prize goal” that “normalization factor” can be used, which “indicates how much an individual ratio 488 should be adjusted based on the particular game played.” Ex. 1005 at 40:59-41:9. Kelly683 explains that while the normalization factor “can be estimated initially,” “[a]fter a number of games have been played on a game unit 10, the normalization factor for each game can be based on the actual hit ratio determined for each game.” Ex. 1005 at 41:30-33. Kelly683 goes on to explain that “[t]he redemption system separately keeps track of actual hit ratios for each game offered on game unit 10 by recording the number of games (for each type of game) and the amount of the specific prize goals met.” Ex. 1005 at 41:33-37.

13. [1.d.i]: “(i) analyze game play as a function of the recorded information regarding particular game play events, and”

179. In my opinion, Kelly683 discloses this limitation. Kelly683 discloses *analyz[ing] game play as a function of the recorded information regarding particular game play events* because the game system analyzes game play as a function of difficulty or past wins.

180. With respect to *recorded information regarding particular game play events* as difficulty, Kelly683 discloses the adjustment of game difficulty to achieve an average payout level of prize credits, which in turn will achieve the global payout percentage inputted by an operator. Examples disclosed by Kelly683 of adjusting difficulty include:

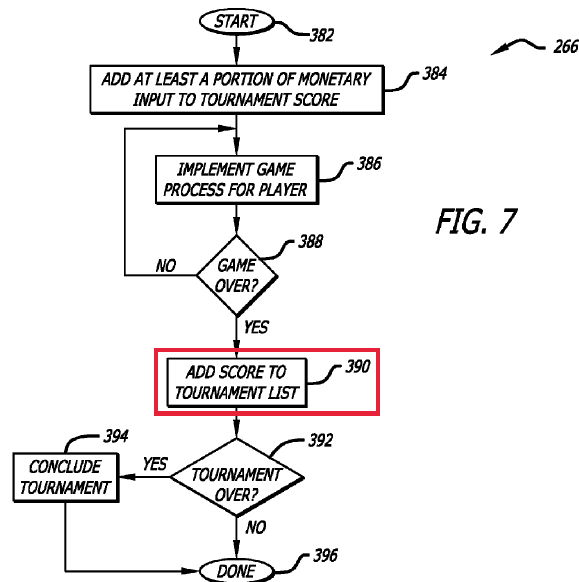
- “[I]n an action game the speed of controlled objects, response of input devices, and the like, can be adjusted so that most players don’t receive a score higher than a particular value.” Ex. 1005 at 38:65-39:1.
- “In card games, the frequencies of winning combinations of cards can be adjusted.” Ex. 1005 at 39:1-2.
- “In quiz games, the difficulty of the questions at various times during the game can be adjusted so that average players will typically win a certain number of prize credits per game.” Ex. 1005 at 39:2-5.

- “Durations of games, which have a fixed duration, can also be adjusted to achieve an average payout level of prize credits.” Ex. 1005 at 39:5-7.

181. With respect to *recorded information regarding particular game play events* as past wins, Kelly683 discloses tracking past wins to provide an overall prize or to adjust prizes to achieve global payout or win ratios. Ex. 1005 at 37:1-10. Kelly683 discloses that “FIG. 6 a illustrates an example display of score and prize credits (shows as ‘tickets’) won by a player after a game is over...A score of higher value is awarded to reflect this necessary higher skill.” Ex. 1005 at 26:59-27:1. “During the course of the game, the current prize credit or score amount may be displayed, as indicated in operation 1606. If the player achieves the high score or some other related goal, all of the current progressive prize pool or score amount is awarded the user.” *Id.*, 57:27-33.

182. Kelly683 discloses that “[g]ame system 100 is also well suited to implement tournament games.” Ex. 1005 at 20:48-49. Kelly683 goes on to explain that “game units at different sites can also be linked together and/or to a server 108” and that such a “[s]erver 108 may coordinate prizes between game units, or determine a tournament prize 112 at the conclusion of a tournament” Ex. 1005 at 20:59-21:3. Figure 7 “is a flow diagram illustrating a method of implementing a tournament game” Ex. 1005 at 7:53-54. Kelly683 explains that for a tournament

game, “[p]layers from gaming environments in several different locations can thus interact or compete simultaneously in offered games, or over a predetermined time period during which the tournament is open to players.” Ex. 1005 at 31:15-19.



At step 390 of Figure 7, Kelly683 discloses a step for “add score to tournament list.” Kelly683 explains that “[t]he tournament list preferably includes all the players in the tournament by name or other identification and their associated game scores.” Ex. 1005 at 32:25-27. Kelly683 goes on to explain that:

... additional information can also be stored in the tournament list, which can be used to help determine a winner or to provide statistical information for the operator of the tournament. For example, the time the player took to play a game, the number of times a player has participated in similar previous tournaments, and the like[.]

Ex. 1005 at 32:31-33. Kelly683 explains that the tournament list can be stored locally on a game unit, but is typically stored on the tournament server. Ex. 1005 at 32:34-39.

183. A POSITA would have understood that the current game play information and corresponding past wins or difficulty would need to be recorded to determine whether game or prize structures would need to be adjusted.

14. [1.d.ii]: “(ii) determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria including at least one of: a game structure and a prize structure,”

184. In my opinion, Kelly683 discloses this limitation. As discussed in [1.c.i]-[1.c.ii], Kelly683 discloses *first* and *second programmable variable parameter sets...including at least one of: a game structure and a prize structure* in the form of different parameters to make a game more or less difficult or to adjust prizes. *See* Sections X.C.9-10 (Ground 1, Limitations [1.c.i]-[1.c.ii]). As discussed in [1.d.i], Kelly683 discloses past wins and difficulty as *recorded game play information*. *See* Section X.C.14 (Ground 1, Limitation [1.d.i]).

185. Kelly683 further discloses *determine[ing] the selection of the game or prize structure parameter sets by utilizing the difficulty or past wins based on a threshold related to the global payout or win ratios (with predefined criteria)*. With

respect to *game structure*, as discussed in [1.d.i], if the game is too easy or difficult, the difficulty can be adjusted during the course of play. Section X.C.14 (Ground 1, Limitation [1.d.i]); Ex. 1005 at 38:55-39:7 (discussing ways to adjust difficulty in action games, card games, quiz games, games with a fixed duration). With respect to *prizing structure*, as discussed in [1.d.i], if the global payout or win ratio is too high based on past wins, the prizing structure can be adjusted to achieve the global payout or win ratio. Section X.C.14 (Ground 1, Limitation [1.d.i]); Ex. 1005 at 37:1-10 (“For example, every 8,000 games, two video consoles are to be awarded. If it is randomly determined that a third video console is to be awarded within, e.g., the 3,000th game, then a different prize can be awarded so that the desired odds are better met.”).

15. [1.e]: “a display system for displaying at least the player club points, and”

186. In my opinion, Kelly683 in view of the knowledge of a POSITA renders obvious this limitation.

187. As I discuss for the preamble, Kelly683 discloses output devices 18 including displays (*a display system for displaying*). Section X.C.1; *see also* Ex. 1005 at 10:49-11:9, 11:10 (“A preferred output device is a display screen”). Although Kelly683 does not disclose that the output devices 18 display *at least the*

player club points, a POSITA would have been motivated and found it obvious to implement such a feature in view of the knowledge of a POSITA.

188. As I discussed in the Technology Overview, it was well-known that player tracking information would have included the user's player's club points (*player club points*). Ex. 1007 at ¶[0049] (“the player tracking server may use the game play information provided by the player tracking unit to generate player tracking points and add the points to a player tracking account identified by the player tracking card”); *see* Section V.B.

189. A POSITA would have been motivated to modify Kelly683 to display player points on Kelly683's output devices 18 because it would allow the user to view the points as they were playing and increase the likelihood that the user would remain engaged in the current game. A POSITA would have had a reasonable likelihood of success in implementing such a modification because it would be a simple programming change to communicate the player points to the output device 18 to be displayed.

16. [1.f]: “a system input for receiving player input.”

190. In my opinion, Kelly683 discloses this limitation.

191. Kelly683 describes a variety of *system input[s]* (e.g., “buttons, a keyboard, dials, joystick controls”) that are used in Kelly683 *for receiving payer*

input. Ex. 1005 at 9:62-10:7 (“Input devices 16 are used by a player or user to provide input to the game unit 10 to influence game events during a game process and to achieve one or more predetermined goals or tasks for scoring points and winning prizes or other types of awards”).

192. Kelly683 discloses that “[g]ame unit 10 in accordance with the present invention may include a game processor 12, monetary input device 14, player input device(s) 16, game output device(s) 18, a universal ticket dispenser 20, a specific prize ticket dispenser 22, and a communication device 24.” Ex. 1005 at 9:10-14.

193. Kelly683 discloses that “the game processor interprets the commands and influences game states and game events in the game process accordingly.” Ex. 1005 at 10:13-15. *See also id.* at 15:35-38 (“Game processor 12 receives signals and commands from the player input devices 16 and translates/interprets those signals and commands so that the game process can be updated.”).

D. Dependent Claims 3-9, 13, 17, 18, 23, 25, 26, 28 and 29

1. Claim 3: “The system for electronic game play of claim 1 wherein the player's club information includes information on non-cash items.”

194. In my opinion, Kelly683 in view of the knowledge of a POSITA renders obvious this limitation.

195. Player tracking programs (*player's club*) which “provide rewards, or comps, to players in proportion to the player’s level of player's level of patronage (e.g., to the player’s playing frequency and/or total amount of game plays at a given casino).” Ex. 1007 at ¶¶[0008]-[0009]; *see* Section V.B. Player tracking information would have included information on *non-cash items* such as level of patronage, number of player tracking points previously accumulated, and player preferences. *Id.*, ¶¶[0052]; *see* Section V.B.

196. Figure 16 of Kelly683 discloses a functional diagram depicting various “operations” of a server, including “a player registration operation 1102” and includes information on non-cash items including “prize redemption 1114” and “awarding prizes 1112”. Ex. 1005 at 51:16-38.

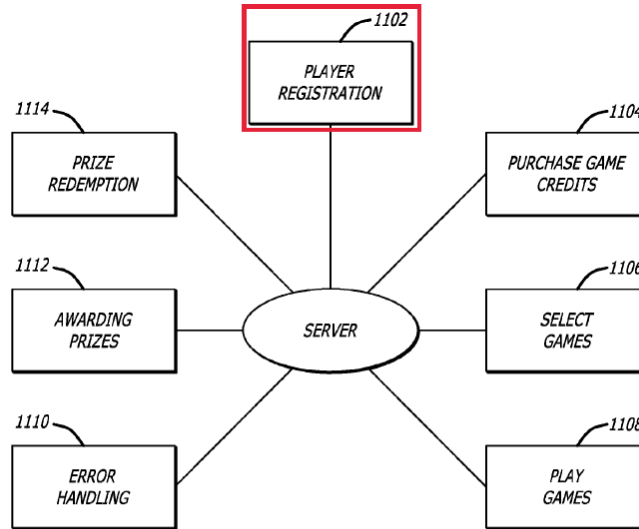


FIG. 16

197. A POSITA would have been motivated to implement this feature because it would have provided more information to both the operator and the user that would have enhanced the user experience. For example, including the player preferences would have allowed the operator to customize the experience for the user. A POSITA would have had a reasonable expectation of success implementing such a feature because it would have required a simple change in programming to add a row or table to a database storing the player's account information.

2. Claim 4: “The system for electronic game play of claim 3 wherein the player's club information includes information on non-cash item is an image.”

198. In my opinion, Kelly683 in view of the knowledge of a POSITA renders obvious this limitation.

199. Kelly683 describes that the “[g]ame unit 10 can take a variety of forms, including a video game apparatus having one or more display screens” Ex. 1005 at 8:57-59. *See also id.* at Fig. 1 (“Display Screen”) and Fig. 2. Kelly683’s game units include “game output device(s) 18” which “provide feedback to the player about the current state of the game process.” Ex. 1005 at 9:10-14; 10:49-51. In Kelly683, one such output device is a “video display screen” which “can provide visual feedback such as images to the player during the game process.” Ex. 1005 at 10:56-58. Indeed, Kelly683 goes on to explain that “[a] preferred output device is a display screen 56. Game processor 12 utilizes appropriate display drivers, graphics chips, and/or other well-known components to display and update images on the display screen for implementing a game and providing information for the redemption system of the present invention, as described below.” Ex. 1005 at 11:10-15.

200. It would have been obvious to a person of skill in the art to implement a system where the player’s club information includes an image as part of the non-

cash information. It was well known to a POSITA that players club points or other club information could be used to categorize players into different levels based on their patronage, e.g., “gold level” “diamond level” etc. It would have been obvious to include this information in the form of an image (e.g., gold bar or diamond) as part of the players non-cash information stored with their account. Alternatively, it would have been obvious to a POSITA to include a picture of the player themselves as part of their player’s club information to assist with authentication of the user and other security related issues.

201. A POSITA would have been motivated to implement this feature because it would have provided better communication to the user. A POSITA would have had a reasonable expectation of success implementing such a feature because it would have required a simple change in programming to add a row or table to a database storing the player’s account information, and/or provide a separate image database.

3. Claim 5: “The system for electronic game play of claim 1 wherein the first set and second set of variable parameters utilize game play information across multiple users devices.”

202. In my opinion, Kelly683 discloses this limitation.

203. For game structure, Kelly683 discloses modifying the parameters characterizing the gaming structure to increase difficulty (the first set and second set

of variable parameters are set) based on the average prize credits awarded across game units (based on a comparison of game play information across multiple user devices). Ex. 1005 at 38:58-60 (“It is possible for the game's manufacturer to adjust game difficulty so that, on average, a predetermined number of prize credits will be awarded for each game played.”).

204. For prizing structure, Kelly683 discloses modifying the parameters characterizing the prizing structure to change the play probabilities (the first set and second set of variable parameters are set) based on the frequency of players utilizing game units achieving a specific prize goal (*based on a comparison of game play information across multiple user devices*). Ex. 1005 at 40:55-57 (“In the preferred embodiment, each offered game is normalized to the desired specific prize ratios based on the frequency of players achieving the specific prize goal.”).

4. Claim 6: “The system for electronic game play of claim 1 wherein the game play information includes information on a loss.”

205. In my opinion, Kelly683 discloses this limitation.

206. Kelly683 discloses that the game play information provided by the game processor includes information on whether a player has been “eliminated from the tournament after losing a predetermined number of games” (*information on a loss*). Ex. 1005 at 34:19-24; *see also* 15:10-23, 32:20-33.

5. Claim 7: “The system for electronic game play of claim 1 wherein the game play information includes information on a series of outcomes.”

207. In my opinion, Kelly683 discloses this limitation.

208. Kelly683 discloses that the game play information provided by the game processor includes information on game credits and prize credits accrued from previous outcomes of the game play. Ex. 1005 at 9:40-55, 23:42-58, 24:4-18, 30:1-16. To the extent series of outcomes excludes game credits, Kelly683 also discloses that the game play information provided by the game processor includes information on each player’s score or performance after successive game play as well as the outcomes from a series of games in a tournament. Ex. 1005 at 20:48-21:3, 58:29-56, Fig. 22.

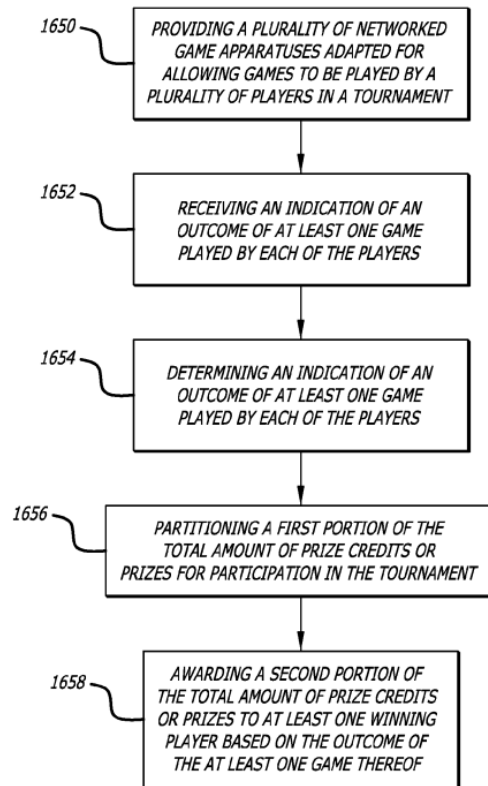


FIG. 22

6. Claim 8: “The system for electronic game play of claim 1 wherein the game play information includes information on the number of wins.”

209. In my opinion, Kelly683 discloses this limitation.

210. Kelly683 tracks “win rates” which is a rate that looks at the number of wins divided by the number of plays. *Id.*, 5:11-15 (“exemplary mandate parameters may consist of prize pay out and win rates. A POSITA would have understood that win rates are game play information on the number of wins.

7. Claim 9: “The system for electronic game play of claim 1 wherein the game play information includes information on a first game play event.”

211. In my opinion, Kelly683 discloses this limitation.

212. Kelly683 discloses that the game play information provided by the game processor includes information on an initial game play event based on the user input (*information on a first game play event*). Ex. 1005 at 10:12-15 (“Each type of user input can provide a particular game command to the game processor 12, and the game processor interprets the commands and influences game states and game events in the game process accordingly.”); *see also id.*, 1:44-46, 9:62-66, 46:32-37, 46:49-52.

8. Claim 13: “The system for electronic game play of claim 1 wherein the game play information includes information tracking the users play.”

213. In my opinion, Kelly683 discloses this limitation.

214. Kelly683 discloses that the game play information provided by the game processor includes statistical information on the users play including the player’s “score 362 of the game” as well as “the time the player took to play a game, the number of times a player has participated in similar previous tournaments, and the like.” Ex. 1005 at 26:59-27:1, 32:20-33.

9. Claim 17: “The system for electronic game play of claim 1 wherein the prizing structure is modified by modifying bonus prizing.”

215. In my opinion, Kelly683 discloses this limitation.

216. Kelly683 discloses modifying the prizing structure by modifying the awarding of a progressive bonus award (bonus prizing). Ex. 1005 at 16:13-25. To the extent that bonus prizing refers to a prize awarded during a bonus round, Kelly683 discloses prizes awarded during an optional speed bonus. Ex. 1005 at 26:59-27:18.

10. Claim 18: “The system for electronic game play of claim 1 wherein the prizing structure is modified by modifying awarding of non-cash prizes.”

217. In my opinion, Kelly683 discloses this limitation.

218. Kelly683 discloses modifying the prizing structure by modifying the awarding of a progressive bonus award (bonus prizing). Ex. 1005 at 16:13-25. To the extent that bonus prizing refers to a prize awarded during a bonus round, Kelly683 discloses prizes awarded during an optional speed bonus. Ex. 1005 at 26:59-27:18.

11. Claim 23: “The system for electronic game play of claim 1 wherein the decision engine for game analytics tracks user specific play.”

219. In my opinion, Kelly683 discloses this limitation.

220. In my opinion, as discussed in [1.d], Kelly683 discloses a process for providing statistical information (*decision engine for game analytics*), including “[t]he number of times the player has played.” Ex. 1005 at 25:23-24; *see also id.*, 32:27-33. The number of times a player has played is *user specific play*.

12. Claim 25: “The system for electronic game play of claim 1 wherein the predefined criteria is a predefined prizing criteria.”

221. In my opinion, Kelly683 discloses this limitation.

222. Kelly683 discloses predefined criteria that include prizing criteria: “An operator need only input desired prizes and a desired percentage of income that is to be paid back to players, and the system can automatically determine prize credit costs and win ratios for the entered prizes, which achieve the desired profitability of the game apparatus. These entered prizes and prize costs are then automatically provided to players on the game apparatus.” Ex. 1005 at 5:58-64.

13. Claim 26: “The system for electronic game play of claim 1 wherein the predefined criteria is the number of wins.”

223. In my opinion, Kelly683 discloses this limitation.

224. As discussed in [1.d.ii], Kelly683 discloses predefined criteria that is past wins, or the number of wins, as win rates are one of the examples or predefined criteria that it describes can be set by the operator. Ex. 1001 at 5:11-15.

14. Claim 28: “The system for electronic game play of claim 1 wherein the predefined criteria is the amount of time played.”

225. In my opinion, Kelly683 discloses this limitation.

226. As discussed in [1.d.ii], Kelly683 discloses that the *predefined criteria* can be difficulty which can be adjusted based on the duration of the game. See Section X.C.14 (Ground 1, Limitation [1.d.ii]); *see also* Ex. 1005 at 39:5-7 (“Durations of games, which have a fixed duration, can also be adjusted to achieve an average payout level of prize credits.”).

15. Claim 29: “The system for electronic game play of claim 1 wherein the predefined criteria is the number of plays for a player.”

227. In my opinion, Kelly683 in view of the knowledge of a POSITA renders obvious this limitation.

228. As I discussed in [1.d.ii], Kelly683 discloses that the *predefined criteria* can be difficulty which can be past wins. See Section X.C.14 (Ground 1, Limitation [1.d.ii]).

229. Although Kelly683 does not expressly disclose that the predefined criteria *is the number of plays for a player*, a POSITA would have been motivated and it would have been obvious to implement this feature.

230. Player tracking programs were known to have included tracking the number of plays for a player to provide rewards or other prizes. Ex. 1007 at ¶[0008] (describing “rewards, or ‘comps,’ to players in proportion to the player’s level of patronage (e.g., to the player’s playing frequency and/or total amount of game plays at a given casino).”); *see also* Section V.B.

231. A POSITA would have been motivated to implement this feature because it would have resulted in better user engagement. A POSITA would have had a reasonable expectation of success because it would have been a mere change in programming to implement such a feature.

XI. OPINIONS ON GROUND 2: WALKER ALONE OR IN VIEW OF THE KNOWLEDGE OF A POSITA RENDERS OBVIOUS CLAIMS 1, 3, 5-9, 13, 17, 18, 23, 25, 26, 28, 29

232. The various embodiments of Walker disclose each limitation in the challenged claims of the ’279 patent. In my opinion, a POSITA would have combined those embodiments resulting in a system that renders obvious each limitation of the challenged claims.

233. Walker presented these features as options in implementing its gaming system. *See, e.g.*, Ex. 1006 at ¶[0172] (“In one or more embodiments, the controller 205 (or another device, as appropriate) may verify that an adjustment of a game is successful.”), [0320] (“In one or more embodiments (e.g.,

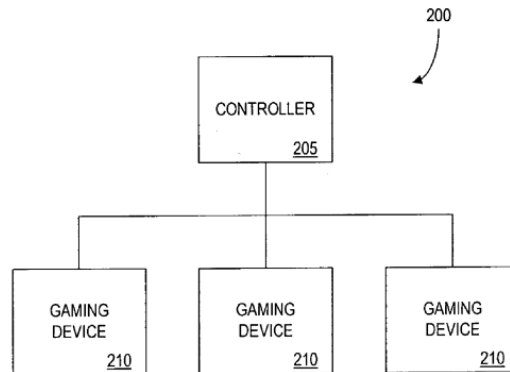
if controller 205 determines that adjustments of a game have been unsuccessful) a game may be more substantially modified.”). Accordingly, a POSITA implementing would have motivated to combine the various features of these embodiments together.

A. Independent Claim 1

- 1. Preamble: “A system for dynamically varying game play parameters in an electronic environment, over a communications network between multiple users of the system at multiple locations and a remote location including a play engine, the users utilizing communication devices, the communication devices having input capability and generate an output corresponding to the input, comprising:”**

234. In my opinion, to the extent limiting, Walker discloses the preamble. Walker discloses “system 200...may include a controller 205 (an example of which is depicted in FIG. 3) in one or two-way communication with a plurality of gaming devices 210 (an example of which is depicted in FIG. 4) via a network such as, for example, the Internet or via another communications link.” Ex. 1006 at ¶[0051], Fig. 2; *see also* ¶[0062] (“embodiment 300 of controller 205”). A POSITA would have understood that the controller and gaming devices create a *system for . . . game play . . . in an electronic environment* because these components are electronic. *See also* Ex. 1006 at ¶[0062] (“The controller 300 may be implemented as a system controller...or any other equivalent electronic”), [0069] (“The gaming device 400

may be implemented as a system controller...or any other equivalent electronic”),
 (“The gaming device 400 may comprise any or all of the gaming devices 210”).



235. Walker discloses that the game may be played according to certain *game play parameters* which are “variables that affect the performance, scoring, difficulty, outcome, or other aspects of the game.” Ex. 1006 at ¶[0155]; *see also id.*, ¶¶[0156]-[0166]. Walker explains that the *system* provides for *dynamically varying game play parameters* because the game parameters may be adjusted at various times based on an evaluation of results. For example, if certain predetermined criteria for the game are not met, game parameters may be adjusted to achieve those criteria. Ex. 1006 at ¶[0267]. Adjustments to vary game parameters can be made dynamically during game play, such that an evaluation of results (and subsequent adjustment) may occur, for example, at a predetermined time (*id.*, ¶¶[0274]-[0275]) or after a user’s gaming device has reached a “predetermined activity level” (*id.*,

¶[0277]). The game parameters can also be dynamically varied based on an assessment of the skill level of a player. *Id.*, ¶[0105].

236. Walker discloses that “a player may remotely operate a gaming device” (*the users utilizing electronic communication devices*). Ex. 1006 at ¶[0091]. The system of Walker provides for a communications network (*over a communications network*) that allows for communication between multiple players using gaming devices at remote locations (*multiple users of the system at multiple locations*) and a controller on a remote server (*and a remote location*). Ex. 1006 at ¶¶[0051] (“The system 200...may include a controller 205...in one or two-way communication with a plurality of gaming devices 210...via a network such as, for example, the Internet or via another communications link.”), [0055] (“Communication between the gaming devices 210 and the controller 205, and among the gaming devices 210, may be direct or indirect, such as over the Internet through a Web site maintained by a controller 205 on a remote server....”).

237. As further discussed for limitation [1.c] (*see* Section XI.A.10), the controller (*remote location*) includes a play engine software module (*including a play engine*), which performs functions such as implementing, modifying, and utilizing game and prize parameters, as described above. Indeed, Walker discloses that the controller (*remote location*) is operable to adjust the game parameters to

achieve predetermined criteria, thus performing functions of a *play engine*. Ex. 1006 at ¶[0168].

238. The users' gaming devices (*the communication devices*) also have *input capability and generate an output corresponding to the input*. “The gaming device 400 comprises a processor 405...in communication with an output device 410,” as shown in red below, which “may comprise, for example, a cathode ray tube (CRT) monitor, liquid crystal display (LCD) screen, or light emitting diode (LED) screen.” Ex. 1006 at ¶[0070]; Fig. 4. “The gaming device 400 comprises a processor 405...in communication with...an input device 415,” as shown in blue below, which may be “a computer keyboard or keypad, a button, a handle, a keypad, a touch-screen, a microphone” (*the communication devices having input capability*). Ex. 1006 at ¶[0070]; Fig. 4.

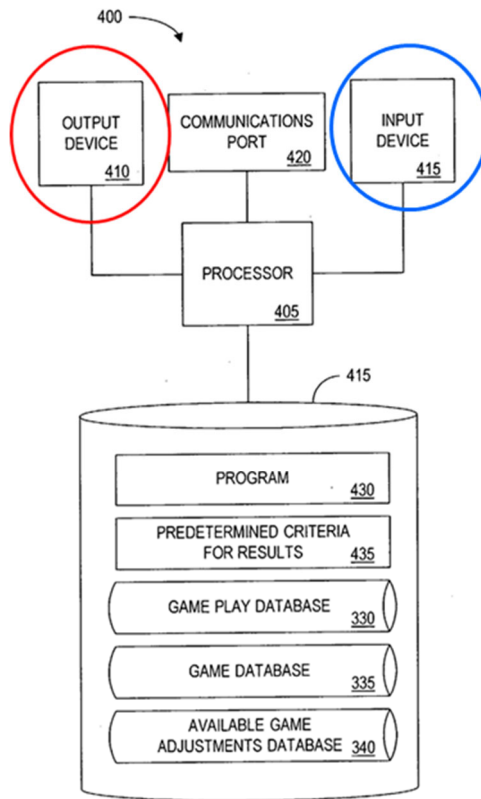


FIG. 4

Ex. 1006 at Fig. 4 (annotated)

239. Walker discloses *the communication devices having input capability and generate an output corresponding to the input* because “the controller...may receive a selection of a game that a player would like to play” and that “a player may use a player device or a gaming device to select a game that he would like to play from a list of available games.” Ex. 1006 at ¶[0219]. Walker explains that “the

controller may...direct the gaming device to initiate the requested game.” Ex. 1006 at ¶[0220]. A POSITA would have understood that the player inputs a selection of a game (e.g., through the input device) and the gaming device outputs the corresponding selected game (e.g., through the display capabilities of the output device 410).

2. [1.a]: “a processor,”

240. In my opinion, Walker discloses this limitation.

241. Walker discloses that “controller 300 may comprise, for example, a server computer operable to communicate with one or more client devices such as gaming devices 210.” Ex. 1006 at ¶[0062]. “The controller 300 comprises a **processor 305**...in communication with a communications port 310...and a memory 315.” Ex. 1006 at ¶[0064].

3. [1.b]: “memory to:”

242. In my opinion, Walker discloses this limitation.

243. Walker discloses that “controller 300 may comprise, for example, a server computer operable to communicate with one or more client devices such as gaming devices 210.” Ex. 1006 at ¶[0062]. “The controller 300 comprises a processor 305...in communication with a communications port 310...and a **memory 315**.” Ex. 1006 at ¶[0064]. A POSITA would have understood that the controller

205/300 is used to process and store information used by the system given Walker's teaching that the controller processes and stores the program for gaming. Ex. 1006 at ¶ [0065] ("The memory 315 stores a program 320 for controlling the processor 305.").

4. [1.b.i]: "store mandated and programmable variable parameters for use in the course of game play,"

244. In my opinion, Walker discloses this limitation. As discussed further for limitation [1.b.i.A], Walker discloses one or more predetermined criteria (*mandated parameters*) that must be satisfied during game play (*for use in the course of game play*), as well as game and prize parameters (*programmable variable parameters*) that may be set during game play (*for use in the course of game play*). Ex. 1001 at 5:30-34, 6:6-9, 6:35-39; *see also* Section XI.A.5.

245. The Walker system achieves the *mandated...parameters* by "adjustment of a game in order to help ensure that a set of results obtained during a plurality of game plays of a game satisfy one or more predetermined criteria (e.g., that a standard deviation of the results is not greater than a maximum predetermined standard deviation and not lower than a minimum predetermined standard deviation)." Ex. 1006 at ¶[0022]; *see also* ¶[0023] ("The present invention, in accordance with one or more embodiments, allows a gaming establishment to adjust a game such that results of a game are maintained within a range determined to be

desirable by the gaming establishment.”), ¶[0024]. Walker explains that the predetermined criteria (*mandated...parameters*) may include, for example, whether a predetermined standard deviation or variance is within a predetermined range, above or below a predetermined minimum threshold, or above or below a predetermined maximum threshold. *Id.*, ¶¶[0248]-[0250].

246. As further discussed for limitation [1.b.i.A], the Walker system uses both a game structure and prizing structure. Section XI.A.5. For game structure, Walker discloses adjusting game parameters (*programmable variable parameters*) such as “variables that affect the performance, scoring, difficult, outcome, or other aspects of the game.” Ex. 1006 at ¶[0155]; *see also id.*, ¶¶[0155]-[0166]. For prizing structure, Walker discloses adjusting prize parameters such as the prize that is awarded, or the median or mean score of a game to enable more players to achieve a score that corresponds to a prize. *Id.*, ¶[0028].

247. A POSITA would have understood that the controller stores (*store*) the predetermined criteria (*mandated parameters*) and game and prize parameters (*programmable variable parameters*) in memory. Ex. 1006 at ¶[0077] (“The memory 425 [of the controller] also stores a predetermined criteria for results 435.”), ¶[0082] (“In one or more embodiments, gaming device 400 may access the predetermined criteria for results 435 from another device rather than storing it

locally. For example, gaming device 400 may obtain such information from controller 300.”), ¶[0106] (“Note that game parameter values may be stored in a database and retrieved as needed by the gaming device. Alternatively, the gaming device 210 or controller 205 may calculate an appropriate value for a game parameter as necessary.”); ¶[0106] (“In another example, a binary indication (e.g., ‘yes’ or ‘no’) of whether a prize was won as a result of a game play may be stored in the game play database.”) *see also* ¶¶[0067], [0246], Figure 8.

248. A POSITA would have also understood that the Walker system uses the predetermined criteria, as well as the game parameters and prizing, *for use in the course of game play* by determining whether a set of results meets the predetermined criteria (EX1006., ¶¶[0261]-[0264]), and if necessary, adjusting the game by “(i) determining the at least one goal of the adjustment; (ii) determining the one or more game parameters to be adjusted; (iii) determining a respective new value for each of the one or more game parameters to be adjusted; and (iv) executing the adjustment” (Ex. 1006 at ¶[0267].).

5. **[1.b.i.A]: “wherein, the mandated parameters represent parameters which must be achieved by the system as a whole, and the programmable variable parameters represent parameters characterizing at least one of: a game structure and a prizing structure”**

249. In my opinion, Walker discloses this limitation.

250. As discussed for limitation [1.b.i] (*see* Section XI.A.4), Walker discloses that one or more predetermined criteria (*mandated parameters*) of a system must be satisfied during game play (*must be achieved by the system as a whole*). For example, a game may need to be adjusted to ensure that a predetermined standard deviation (*mandated parameter*[*]*) is met by the system results (*must be achieved by the system as a whole*). Section XI.A.4.

251. Walker discloses *variable parameters* that *represent parameters characterizing at least one of: a game structure and a prizing structure*. *See also* Ex. 1001 at 6:6-9, 6:35-39. Like the '279 patent, the Walker system uses both a *game structure* and *prizing structure*. For *game structure*, Walker explains that the predetermined criteria can be achieved by adjusting “one or more game parameters” that “may be variables that affect the performance, scoring, difficulty, outcome, or other aspects of the game.” Ex. 1006 at ¶[0155]. These game parameters include “factors that affect the difficulty of a game (e.g., complexity of a game, hints provided, the sensitivity of controls, difficulty of trivia questions, number of opponents)” (Ex. 1006 at ¶[0156]), “rules of a game (e.g., number of strikes allowed in a baseball game, cost of vowels in a word guessing game)” (*id.*, ¶[0159]), “factors that affect the duration of a game (e.g., a number of rounds, a number of lives)” (*id.*, ¶[0160]) and “an amount of time that a player is allowed to achieve an event in a

game or complete a game play of the game” (*id.*, ¶[0166]). *See generally* Ex. 1006 at ¶¶[0155]-[0166].

252. For *prizing structure*, Walker explains that the predetermined criteria can be achieved by adjusting “what prize is awarded.” Ex. 1006 at ¶[0028]. Walker further discloses “[a]n operator of a gaming establishment may desire to, for example, raise a median or mean score of a game in order to further motivate players by enabling more players to achieve a score that corresponds to a prize (e.g., a more valuable prize) or that is closer to a score that corresponds to a prize.” Ex. 1006 at ¶[0028].

6. [1.b.ii]: “record game play information regarding particular game play events, and”

253. In my opinion, Walker discloses this limitation.

254. Walker explains that the game play database may store information pertaining to certain game play events such as “lives,” “rounds,” or “levels” (*record game play information regarding particular game play events*). Ex. 1006 at ¶¶[0027] (“A game play comprises an attempt to obtain a score or win a prize in accordance with the rules of the game and ends at a designated time (e.g., once the prize is won or **a number of ‘lives’ or ‘rounds’ is played** without having won the prize).”), [0160] (discussing game parameters such as “factors that affect the duration of a game (e.g., **a number of rounds, a number of lives**)”), [0163] (discussing game

parameters such as “algorithms that control how points are awarded (e.g., a formula for the number of bonus points that a player receives at the[] end of **a round of a game play** or at the end of a game play)”), [0245] (discussing “**number of levels completed**”), [0265] (discussing awarding of a prize “if a player achieves a particular...**level of achievement** in one or more game plays of a game (e.g., the player gets to **level 3 of the game** within two consecutive game plays)”)”; *see also id.*, ¶[0109] (“A game play database 330 stores information about individual game plays conducted on gaming devices of system 200.”). A POSITA would have understood that each of several lives/rounds is a game play event (*particular game play events*).

7. [1.b.iii]: “store player’s club information, including at least”

255. In my opinion, Walker discloses this limitation.

256. As discussed for limitation [1.a], the controller comprises a server with memory (Ex. 1006 at ¶[0064], and as discussed for limitation [1.a.i], the controller’s memory may store a plurality of databases, including a player database (*id.*, ¶[0067]). Walker further discloses that the player database stored on the server may include a player identifier such as a frequent gamer account (*store player’s club information*). (*Id.*, ¶[0098] (“The tabular representation 500 of the player database 325 includes...fields for each of the entries or records. The fields specify: (i) a player

identifier 505....”), [0100] (“[A] player identifier may be any information sufficient to identify a player. For example, a player identifier may include an indication of one or more of the following:...(viii) an identifier that identifies another type of account associated with a player (e.g., a frequent shopper or frequent gamer account).”).

8. [1.b.iii.A]: “(i) player identification information, and”

257. In my opinion, Walker discloses this limitation.

258. As described above for Section XI.A.7, Walker discloses a player database that includes a player identifier 505 and other player identification information. Ex. 1006 at ¶[0098].

9. [1.b.iii.B] “(ii) the amount of player points,”

259. In my opinion, Walker discloses this limitation.

260. Walker discloses that the player’s account in the player database may include the number of points a player has won through game play (*the amount of player points*). Ex. 1006 at ¶[0231] (“[A] player may win 3400 points in a game play of a game and these points may be credited to his account in a player database stored by the controller 205 (e.g., the player database 325).”).

10. [1.c]: “a play engine coupled to the memory and operating with the processor to:”

261. In my opinion, Walker discloses this limitation.

262. As discussed for limitations [1.a] and [1.b], Walker’s controller 205 has a *processor* and a *memory*. Sections XI.A.2-3. Walker discloses that the memory stores a plurality of databases including an “available game adjustments database” (Ex. 1006 at ¶[0067]), which “stores a variety of possible adjustments that may be made by the controller 205 to a particular game, along with the anticipated consequences of these modifications” (*id.*, ¶[0178]). Walker explains that “[t]he controller 205 may utilize the available game adjustments database 340 to select one or more game parameters to be adjusted for a game as well as to determine a new value for the game parameters selected to be adjusted.” *Id.*, ¶[0178]. A POSITA would have understood that these controller functions to implement, modify, and utilize the game and prizing variable parameters (as described in limitations [1.c.i-iii] in Sections XI.A.11-13) would have been performed by a software module (*play engine*) of the controller. A POSITA would have also understood that the *play engine* would be *operating with the processor* since both are components of the controller, and would be *coupled to the memory* since it would control functions that involve using the memory’s game adjustment database. *Id.*

11. [1.c.i]: “implement a first set of programmable variable parameters to provide a first game play experience,”

263. In my opinion, Walker discloses this limitation.

264. Walker discloses multiple ways of *implement[ing] a first set of programmable variable parameters to provide a first game play experience*. Using the game structure, the system implements game parameters providing *a first game play experience* that is less difficult. For example, the number of lives may first be set to 5, the speed of the spaceship may be set at a certain variable, or the precision of the spaceship may be set at a certain level. Ex. 1006 at ¶¶[0155]-[0166], Figure 8.

265. Using the prizing structure, the system implements prize parameters providing *a first game play experience* where the user obtains fewer prizes or less valuable prizes. For example, the system may set the score to obtain a prize at a high score, or provide a lower monetary value prize. Ex. 1006 at ¶[0028].

12. [1.c.ii]: “modify one or more programmable variable parameters to provide a second set of programmable variable parameters providing a second game play experience, wherein the first game play experience differs from the second game play experience, and”

266. In my opinion, Walker discloses this limitation.

267. Walker discloses *modify[ing] one or more programmable variable parameters* (discussed in Sections XI.A.4-5) *to provide a second set of programmable variable parameters providing a second game play experience*.

Walker explains that the available game adjustments are stored in the game adjustments database shown in Figure 8 below. Ex. 1006 at ¶[0177].

800

GAME IDENTIFIER: G-5327		802	
AVAILABLE ADJUSTMENT		ANTICIPATED CHANGE IN STANDARD DEVIATION	
	804	806	
R-8-01	INCREASE SPEED OF SPACESHIP BY 10-20%	+ 20 POINTS	R-8-02
R-8-03	DECREASE SPEED OF SPACESHIP BY 10-20 %	- 30 POINTS	
	INCREASE NUMBER OF LIVES FROM 3 TO 5	- 50 POINTS	R-8-04
R-8-05	INCREASE NUMBER OF HITS NEEDED TO DESTROY A SMALL METEORITE BY 30-50% AND INCREASE SPEED OF SMALL METEORITE BY 20-30%	+ 90 POINTS	
	INCREASE POINTS AWARDED FOR DESTROYING LARGE METEORITE BY 20-30%% AND DECREASE POINTS AWARDED FOR DESTROYING SMALL METEORITE BY 20-30%	- 100 POINTS	R-8-06
R-8-07	INCREASE TEMPO OF BACKGROUND MUSIC BY 5%	- 5 POINTS	
	ADD "SLOW DOWN / REVERSE DIRECTION" CAPABILITY TO SPACESHIP	+ 30 POINTS	R-8-08
R-8-09	DECREASE PRECISION OF SPACESHIP HEADING CONTROLS BY 2 DEGREES	- 40 POINTS	
	INCREASE SPEED OF MISSILES BY 10-20%	+ 15 POINTS	

FIG. 8

Ex. 1006 at FIG. 8

268. Using the game structure, Walker discloses modifying the first set of *programmable variable parameters* to provide a more difficult game play (a *second set of programmable variable parameters providing a second game play*

experience). For example, the number of lives may be modified from 5 to 3, the speed of the spaceship may be modified to increase by 10-20%, and the precision required by the spaceship controls may be increased by 2%. Ex. 1006 at Figure 8. Walker discloses that *the first game play experience differs from the second game play experience* because the second game play experience is more difficult than the first game play experience (e.g., less lives, speed of spaceship is faster and therefore less time to react, more precision required to control the spaceship). *Id.*

269. Using the *prizing structure*, Walker discloses modifying the first set of *programmable variable parameters* to obtain a different set of prizes (*a second set of programmable variable parameters providing a second game play experience*). For example, the system may modify the score to achieve a prize to a lower score or provide a higher monetary value prize. Ex. 1006 at ¶[0028]. Walker discloses that *the first game play experience differs from the second game play experience* because in the second game play experience, it is easier to win a prize or easier to win a higher value prize.

13. [1.c.iii]: “utilize the first and second programmable variable parameter sets to achieve the mandated parameters through at least the first and second game play experiences,”

270. In my opinion, Walker discloses this limitation.

271. As discussed for limitation [1.c.ii], Walker discloses modifying game and prizing parameters (*programmable variable parameter sets*) such that the adjustment of the parameters from one set of values (*first...programmable variable parameter sets*) to a second set of values (*second programmable variable parameter sets*) provides two different game play experiences (*first and second game play experiences*). Section XI.A.12. As further discussed for limitations [1.b.i] and [1.b.i.A], Walker discloses that the predetermined criteria (*mandated parameters*), such as the standard deviation of results, are achieved by modifying the game and prizing parameters. Sections XI.A.3-4. A POSITA would have thus understood that the two sets of variable parameters are used (*utilize the first and second programmable variable parameters sets*) to achieve the predetermined criteria (*to achieve the mandated parameters*) by switching from a first to second game play experience (*through at least the first and second game play experiences*).

14. [1.d]: “a decision engine coupled to the memory and operating with the processor to:”

272. In my opinion, Walker discloses this limitation. Ex. 1001 at 45:34-39.

273. Walker discloses a process for deciding whether game play results satisfy the mandated parameters and whether variable parameters need to be adjusted accordingly, as further discussed for limitations [1.d.i-ii] in Sections XI.A.15-16. In particular, Walker explains that the evaluation process to determine whether

mandated parameters are met may be triggered by various conditions, including the passage of a predetermined amount of time or the occurrence of a predetermined number of game plays. Ex. 1005 at ¶¶[0273]. If evaluation is triggered, the controller “determines a set of results obtained over a plurality of game plays of a game” and “retrieve[s] the set of results from a game play database.” *Id.*, ¶[0233]; *see also id.*, ¶¶[0234]-[0246]. Walker explains that the game play database is part of the memory (*id.*, ¶[0067]) and “stores information about individual game plays conducted on gaming devices of system 200” (*id.*, ¶[0109]). The controller then “determine[s] whether the set of results selected...satisfies the one or more predetermined criteria associated with the game.” *Id.*, ¶[0248]; *see also id.*, ¶¶[0249]-[0265]. “If it is determined that a set of results for a game does not satisfy one or more predetermined criteria for the game, “the controller 205 adjusts the game” by “(i) determining the at least one goal of the adjustment; (ii) determining the one or more game parameters to be adjusted; (iii) determining a respective new value for each of the one or more game parameters to be adjusted; and (iv) executing the adjustment.” *Id.*, ¶[0267].

274. As discussed for limitations [1.a] and [1.b], Walker’s controller 205 has a *processor* and a *memory*. Sections XI.A.2-3. A POSITA would have also understood that the *decision engine* would be *operating with the processor* since

both are components of the controller, and would be *coupled to the memory* since it would control functions that involve using the memory's game play database.

15. [1.d.i]: “(i) analyze game play as a function of the recorded information regarding particular game play events, and”

275. In my opinion, Walker discloses this limitation.

276. Walker discloses that the game play database discussed for limitation [1.d] (see Section XI.A.14) “stores information about individual game plays conducted on gaming devices of system 200” (*recorded information regarding particular game play events*). Ex. 1006 at ¶[0109]. The software module (*decision engine*) of Walker analyzes game play based on (*analyze game play as a function of*) the information in the game play database. Walker discloses that the “game play database may be utilized, for example, to track results of game plays conducts by means of the system 200.” Ex. 1006 at ¶[0114]. “The tracked results may, in turn, be evaluated to determine whether a range of results satisfies one or more predetermined criteria.” *Id.*, ¶[0115].

16. [1.d.ii]: “(ii) determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria including at least one of: a game structure and a prizing structure,”

277. In my opinion, Walker discloses this limitation.

278. As discussed for limitation [1.d], Walker discloses a process by which the *decision engine* evaluates a selected set of results from the game play database (*recorded game play information*) to determine if mandated parameters are achieved, and based on that determination, determines which game parameters to be adjusted (*determines the selection of...variable parameter sets utilizing the recorded game play information*) if the mandated parameters are not met. See Section XI.A.14. As discussed in limitations [1.b.i], [1.b.i.A], and [1.c.i-iii], Walker discloses that the adjustment/modification of gaming parameters involves *first* and *second programmable variable parameter sets*, including parameters characterizing *a game structure* and *prizing structure*. See Section XI.A.4-5, XI.A.11-13. Indeed, as discussed for limitation [1.c.ii], the gaming parameters may be selected (*determine the selection of the first or second programmable variable parameter sets*) from the game adjustments database in Figure 8. Ex. 1006 at ¶[0177], Fig. 8; Section XI.A.12.

279. Walker further discloses that this determination by the *decision engine* is performed *with predefined criteria*. Walker discloses that the *predefined criteria* used in evaluation may include a predefined condition that triggers evaluation (Ex. 1006 at ¶¶[0273]-[0280]), a predefined set of results selected for evaluation (*id.*, ¶¶[0233]-[0244], a predefined statistic/metric (e.g., standard deviation, variance, or

other mandated parameter) to evaluate (*id.*, ¶¶[0022]-[0023], [0245], [0248]-[0250]), and predefined game parameters (*variable parameter sets*) to modify if the mandated parameter is not achieved (*id.*, ¶¶[0155]-[0166]).

280. Walker also discloses the *predefined criteria including at least one of: a game structure and a prizing structure*. As discussed for limitation [1.b.i.A], Walker discloses that the available variable parameters (which as discussed above are one type of *predefined criteria*) may include parameters characterizing *game structure* and *prizing structure*. Section XI.A.5.

17. [1.e]: “a display system for displaying at least the player club points, and”

281. In my opinion, Walker renders obvious this limitation.

282. Walker discloses that “[t]he gaming device 400 comprises a processor 405...in communication with an output device 410,” which “may comprise, for example, a cathode ray tube (CRT) monitor, liquid crystal display (LCD) screen, or light emitting diode (LED) screen” (*a display system for displaying*). Ex. 1006 at ¶[0070]; Fig. 4.

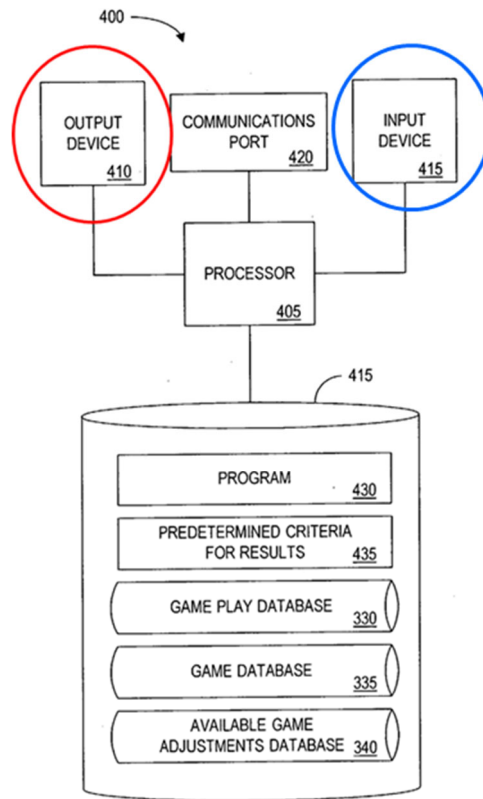


FIG. 4

Ex. 1006 at Fig. 4 (annotated)

283. Walker further discloses that the player database stored on the server may include a player identifier such as a frequent gamer account (*player club*). (*Id.*, ¶¶[0098] (“The tabular representation 500 of the player database 325 includes...fields for each of the entries or records. The fields specify: (i) a player identifier 505....”), [0100] (“[A] player identifier may be any information sufficient to identify a player. For example, a player identifier may include an indication of

one or more of the following:...(viii) an identifier that identifies another type of account associated with a player (e.g., a frequent shopper or frequent gamer account).”).

284. Although Walker does not expressly disclose that the displays of the gaming device display the frequent user points (*a display system for displaying at least the player club points*), a POSITA would have found this feature obvious to implement. One goal of such points is to engage players. *Id.* Displaying the points on the display while the player is playing the game or providing ease of access through the gaming device is more likely to capture more player time, than forcing the player to look at the amount of points in the player’s account from a separate device. *Id.*

18. [1.f]: “a system input for receiving player input.”

285. In my opinion, Walker discloses this limitation.

286. “Input device 415 may be a device that is capable of receiving an input (e.g., from a player or another device)” (*a system input for receiving player input*). Ex. 1006 at ¶[0087]. For example, Walker teaches that “a player may use a player device or a gaming device to select a game that he would like to play from a list of available games.” Ex. 1006 at ¶[0219]. Walker explains that “the controller may...direct the gaming device to initiate the requested game.” Ex. 1006 at ¶[0220].

B. Dependent Claims 3, 5-9, 13, 17, 18, 23, 25, 26, 28 and 29

1. Claim 3: “The system for electronic game play of claim 1 wherein the player's club information includes information on non-cash items.”

287. In my opinion, Walker alone or in view of the knowledge of a POSITA renders obvious this limitation. As discussed for Section XI.A.9, a player's frequent gamer account (*player's club information*) includes the number of points a player has won through game play (*includes information on non-cash items*). Ex. 1006 at ¶[0231].

288. To the extent Walker does not explicitly disclose that a player's point total is connected to the player's frequent gamer account, a POSITA would have found it obvious to implement this feature. A POSITA would have understood that it would have been beneficial to implement a frequent gamer account such that the frequent gamer's identifier is directly associated with all cash balances, point balances (*non-cash items*), or other monetary or non-monetary values that serve as a player's credits for prizes or further game play because it would have improved the gaming experience for frequent gamers by allowing the gamer to easily access monetary and non-monetary account balances using the frequent gamer identifier. Moreover, such an implementation would have provided an easy way to track frequent gamer status by tracking metrics associated with gaming frequency in

connection with the frequent gamer identifier. A POSITA would have also had a reasonable expectation of success in implementing this modification because it would have involved modifying Walker in a manner Walker suggests—using disclosed player account types (i.e., frequent gamer account) to track disclosed types of player information (i.e., point balances).

2. Claim 5: “The system for electronic game play of claim 1 wherein the first set and second set of variable parameters utilize game play information across multiple users devices.”

289. In my opinion, Walker discloses this limitation. As discussed for limitation [1.d] (*see* Section XI.A.14), Walker discloses selecting a set of results from all game plays (i.e., from all users/devices) (*game play information across multiple users devices*) during a specific period of time (Ex. 1006 at ¶[0236]), evaluating whether the variance or standard deviation of those results is within a predetermined range or meets a predetermined threshold (*id.*, ¶[0249]), and adjusting game parameters (*the first set and second set of variable parameters*) based on that evaluation (*id.*, ¶[0267]). Accordingly, the adjusted game parameters (*the first set and second set of variable parameters*) use results from all game plays across multiple user devices (*utilize game play information across multiple users devices*).

290. A POSITA would have also understood that calculating a variance or standard deviation of the selected set of results, which is performed when evaluating

whether a game parameter adjustment must be made (*the first set and second set of variable parameters*), involves a comparison of the selected results (*utilize game play information across multiple users devices*) since variance and standard deviation are both measures of comparison within a data set to determine the amount of variation of values about a mean. *See* Ex. 1006 at ¶¶[0251]-[0258] (formulas for calculating variance and standard deviation both require subtracting the mean/average of all elements in the set from each current element).

3. Claim 6: “The system for electronic game play of claim 1 wherein the game play information includes information on a loss.”

291. In my opinion, Walker discloses this limitation.

292. As shown in Figure 6B below, the game play database records game play information such as a status (in red) indicating the current status of the game play. Ex. 1006 at ¶¶[0118] (“Referring now to FIG. 6B, a tabular representation 640 illustrates an example record of another embodiment of a game play database 330.”), [0119] (“The record 640 includes a number of example fields, each field indicating information related to the game play of the record. The fields include...(vi) a status 662 that indicates a current status of the game play (e.g., ‘in progress’ or ‘completed’).....”). As shown, the status field may indicate if a specific game play

resulted in no prize, i.e., a loss (*game play information includes information on a loss*).

650
↙

GAME PLAY IDENTIFIER: GP-100-893645 652		GAME IDENTIFIER: G-100 654	
PLAYER IDENTIFIER: P-8031902 656			
START TIME: 03/03/03 12:58 PM 658		END TIME: 03/03/03 1:24 PM 660	
STATUS: GAME FINISHED, NO PRIZE 662			
FINAL SCORE: 1,625 664			
EVENT(S) ACHIEVED 666	NUMBER OF OCCURRENCE(S) OF EVENT 668	POINTS / EVENT OCCURRENCE 670	POINTS FOR EVENT 672
A	22	25	550
B	15	25	375
C	11	50	550
D	3	50	150
E	0	200	0
F	0	500	0

FIG. 6B

Ex. 1006 at Fig. 6B (annotated)

4. **Claim 7: “The system for electronic game play of claim 1 wherein the game play information includes information on a series of outcomes.”**

293. In my opinion, Walker discloses this limitation.

294. As shown in Figure 6A below, the game play database records information on a series of game outcomes for various players, games, etc. (*game play information includes information on a series of outcomes*). Ex. 1006 at ¶[0110] (“Referring now to FIG. 6A, an exemplary tabular representation 600 illustrates an embodiment of a game play database 330. The tabular representation 600 of the game play database 330 includes a number of example records or entries, each indicating a game play conducted on a gaming device of system 200.”).

600 ↘

GAME PLAY IDENTIFIER 605	GAME IDENTIFIER 610	PLAYER IDENTIFIER 615	START TIME 620	END TIME 625	RESULT ACHIEVED 630	GAMING DEVICE IDENTIFIER 635
GP-109-3984617	G-109	P-90327942	04/11/03 12:59 PM	04/11/03 1:21 PM	3,721	GD-99-003
GP-271-461703	G-271	P-90327942	04/11/03 1:23 PM	04/11/03 1:27 PM	PRIZE LEVEL 3	GD-11-072
GP-109-398403	G-109	P-01398419	04/11/03 1:23 PM	04/11/03 1:51 PM	4,921	GD-08-321
GP-602-19872311	G-602	P-72103022	04/11/03 1:39 PM	04/11/03 1:58 PM	16 TICKETS	66.6.77.101

FIG. 6A

Ex. 1006 at Fig. 6A.

5. **Claim 8: “The system for electronic game play of claim 1 wherein the game play information includes information on the number of wins.”**

295. In my opinion, Walker discloses this limitation.

296. As shown in Figure 6A above in Section XI.B.4, the game play database records *information* regarding the result achieved, and *number of wins*. For example, the player of the second game won a “Prize Level 3” and the player of the fourth game won “16 tickets.”

6. Claim 9: “The system for electronic game play of claim 1 wherein the game play information includes information on a first game play event.”

297. In my opinion, Walker discloses this limitation.

298. As discussed for Section XI.A.6, Walker explains that the game play database may store information pertaining to certain *game play events* such as “lives,” “rounds,” or “levels.” Ex. 1006 at ¶¶[0027], [0163], [0245], [0265]; *see also id.*, ¶[0109]. A POSITA would have understood that the information collected on the first life/round of several lives/rounds is a first game play event (*game play information includes information on a first game play event*).

7. Claim 13: “The system for electronic game play of claim 1 wherein the game play information includes information tracking the users play.”

299. In my opinion, Walker discloses this limitation.

300. Walker discloses that the game play database tracks results of users’ game plays (*game play information includes information tracking the users play*) for further evaluation in determining whether results satisfy predetermined criteria. Ex.

1006 at ¶[0109] (“The game play database 330 may be used, for example, to **track results of game plays** for use in determining whether a range of results for a particular game satisfy one or more predetermined criteria.”).

8. Claim 17: “The system for electronic game play of claim 1 wherein the prizing structure is modified by modifying bonus prizing.”

301. In my opinion, Walker discloses this limitation.

302. As discussed in limitations [1.b.i], [1.b.i.A], and [1.c.i]-[1.c.iii], Walker discloses that game parameters may be adjusted if predetermined criteria are not met. *See* Sections XI.A.4-5, XI.A.11-13. For example, Walker explains that game parameters associated with bonus prizing can be modified (*the prizing structure is modified by modifying bonus prizing*), such as by changing the number of bonus items available, changing the formula for bonus points awarded at the end of a round, or activating bonus features. Ex. 1006 at ¶¶[0158] (discussing modification of game parameters such as “factors that affect a player’s ability to score points in a game (e.g., maximum number of points possible, **number of bonus items available**)”), [0163] (discussing modification of game parameters such as “algorithms that control how points are awarded (e.g., **a formula for the number of bonus points that a player receives at the[] end of a round of a game play** or at the end of a game

play)"); *see also id.*, claim 22 (“[A]djusting comprises: **activating at least one bonus feature of the game.**”).

9. **Claim 18: “The system for electronic game play of claim 1 wherein the prizing structure is modified by modifying awarding of non-cash prizes.”**

303. In my opinion, Walker discloses this limitation.

304. As discussed for limitation [1.b.1.A], Walker discloses that the variable parameters may represent parameters characterizing a *prizing structure*, including the prize that is awarded (*awarding of...prizes*). Section XI.A.5. As discussed for limitations [1.b.1.A] and [1.c.ii], these variable parameters, including those characterizing *prizing structure*, may be modified in order to achieve the mandated parameters. Sections XI.A.5, XI.A.12. Walker discloses that prizes include not only money, but also any form of consideration such as products or services (*non-cash prizes*). Ex. 1006, ¶[0223] (“In one or more embodiments, the controller 205 may provide one or more prizes to a player as a result of a game play. A prize may be any form of consideration, including currencies (e.g., money), products and services.”). Since Walker discloses that prizes encompass products and services (*non-cash prizes*), and discloses modifying prizing structure parameters such as the prize awarded in order to achieve the mandated parameters, Walker thus discloses *the prizing structure is modified by modifying awarding of non-cash prizes*.

10. Claim 23: “The system for electronic game play of claim 1 wherein the decision engine for game analytics tracks user specific play.”

305. In my opinion, Walker discloses this limitation.

306. As discussed for limitations [1.d] and [1.d.i-ii], the controller has a software module (*decision engine*) that performs actions such as deciding which sets of game play information should be selected for analysis, analyzing the results to calculate variance, standard deviation, or other analytical measures, and comparing these values to predetermined thresholds to decide whether game parameters should be adjusted (*decision engine for game analytics*). Section XI.A.14-16. Walker further discloses that the selected set of results may comprise “all game plays played by a particular player” (*tracks user specific play*). Ex. 1006 at ¶[0237].

11. Claim 25: “The system for electronic game play of claim 1 wherein the predefined criteria is a predefined prizing criteria.”

307. In my opinion, Walker discloses this limitation.

308. As discussed in limitation [1.d.ii], the *predefined criteria* may characterize a prizing structure. Section XI.A.16. A POSITA would have understood that in such a case *the predefined criteria is a predefined prizing criteria*.

12. Claim 26: “The system for electronic game play of claim 1 wherein the predefined criteria is the number of wins.”

309. In my opinion, Walker discloses this limitation. Walker discloses this limitation in two ways.

310. First, Walker discloses that the *predefined criteria* that define mandated parameters achieved by the system may be *the number of wins*. *Id.* Walker discloses that “a characteristic of a game that is indicative of achievement in a game, other than a score or value corresponding to a prize, may be evaluated.” Ex. 1006 at ¶[0245]. “For example,...a number of levels completed, ...or a number of questions answered correctly may be determined and compared to one or more gaming predetermined criteria.” *Id.* As discussed for limitation [1.d.ii], these values, which reflect gaming achievements such levels completed or questions correctly answered (*wins*), may then be compared to the predetermined threshold (i.e., the mandated parameters). *See* Section XI.A.16; Ex. 1006 at ¶[0249]. In other words, a predefined number of levels completed or questions answered correctly (*predefined criteria is the number of wins*) is compared to the actual number of levels completed or questions answered correctly.

311. Second, Walker discloses that the *predefined criteria* that define the variable parameters that may be selected may be *the number of wins*. *Id.* Walker

describes adjusting game parameters such as “a number of points awarded for an achievement of a particular event in a game.” Ex. 1006 at ¶[0157]. A POSITA would have understood that since the game adjustments database has predefined adjustments available, then a predefined game adjustment that reflects the number of points that may be won is *predefined criteria [that] is the number of wins*.

13. Claim 28: “The system for electronic game play of claim 1 wherein the predefined criteria is the amount of time played.”

312. In my opinion, Walker discloses this limitation. Walker discloses this limitation in at least two ways.

313. First, Walker discloses that the *predefined criteria* that define mandated parameters achieved by the system may be *the amount of time played*. *Id.* Walker discloses that “a characteristic of a game that is indicative of achievement in a game, other than a score or value corresponding to a prize, may be evaluated.” Ex. 1006 at ¶[0245]. “For example,...a total time spent playing...may be determined and compared to one or more gaming predetermined criteria.” *Id.* As discussed for limitation [1.d.ii], these values, which reflect gaming achievements such as total time played, may then be compared to the predetermined threshold (i.e., the mandated parameters). *See* Section XI.A.16; Ex. 1006 at ¶[0249]. In other words, a

predefined value of length of time played (*predefined criteria is the amount of time played*) is compared to the actual total time spent playing for a selected set of results.

314. Second, Walker discloses that the *predefined criteria* that define the variable parameters that may be selected may be *the amount of time played*. *Id.* Walker describes adjusting game parameters such as “factors that affect the duration of a game” (Ex. 1006 at ¶[0160]) and “an amount of time that a player is allowed to achieve an event in a game or complete a game play of the game” (*id.*, ¶[0166]). A POSITA would have understood that since the game adjustments database has predefined adjustments available, then a predefined game adjustment that reflects the duration or amount of time in a game is *predefined criteria [that] is the amount of time played*.

14. Claim 29: “The system for electronic game play of claim 1 wherein the predefined criteria is the number of plays for a player.”

315. In my opinion, Walker discloses this limitation. Walker discloses this limitation in several ways.

316. First, Walker discloses that the *predefined criteria* for triggering an evaluation of results may be *the number of plays for a player*. *Id.* For example, Walker explains that “the occurrence of a predetermined number of game plays” may trigger an evaluation of results. EX1006, ¶[0276]; *see also id.*, ¶[0273]. Walker

further explains that the evaluation may be for a specific player (*id.*, ¶[0237]), and thus a POSITA would have understood that the triggering event may be *predefined criteria* defining a certain *number of plays for a player*.

317. Second, Walker discloses that the *predefined criteria* for selecting a set of results for evaluation may be *the number of plays for a player*. *Id.* For example, Walker discloses that the set of results may include “all game plays played by a particular player.” Ex. 1006 at ¶[0237]. Walker further discloses that a certain number of plays may be selected, such that “a predetermined number of representative results...since the time of the last evaluation” are selected. *Id.*, ¶[0235]. A POSITA would have thus understood that the *predefined criteria* may be a certain *number of plays for a player* selected for evaluation.

318. Third, Walker discloses that the *predefined criteria* that define mandated parameters achieved by the system may be *the number of plays for a player*. *Id.* For example, Walker discloses that “a characteristic of a game that is indicative of achievement in a game, other than a score or value corresponding to a prize, may be evaluated.” Ex. 1006 at ¶[0245]. “For example,...a number of levels completed...may be determined and compared to one or more gaming predetermined criteria.” *Id.* A POSITA would have understood that if the number of levels completed is compared to predetermined criteria, then the *predefined criteria*

is the number of plays for a player because determining the number of levels a player has completed is one way of assessing the number of plays for a player.

319. Fourth, Walker discloses that the *predefined criteria* that define the variable parameters that may be selected may be *the number of plays for a player*. *Id.* For example, Walker describes adjusting game parameters such as “factors that affect the duration of a game (e.g., a number of rounds, a number of lives).” Ex. 1006 at ¶[0160]. A POSITA would have understood that since the game adjustments database has predefined adjustments available, then a predefined game adjustment that reflects the number of rounds or lives is *predefined criteria [that] is the number of plays for a player* because the number of rounds or lives is one way of assessing how many plays a player has available.

XII. OPINIONS ON GROUND 3: WALKER IN VIEW OF SCHNEIER¹⁴³ RENDERS OBVIOUS CLAIM 4

A. A POSITA Would Have Been Motivated to Combine

320. A POSITA would have been motivated to combine the teachings of Walker and Schneier¹⁴³. Specifically, a POSITA would have recognized that the use of credits during game play by Schneier¹⁴³ would have been a natural extension of the credits in Walker.

321. First, Walker and Schneier¹⁴³ share the same inventors—namely Jay Walker and James Jorasch. A POSITA implementing and improving the system of

Walker would have naturally looked at other patents and applications of the inventors of Walker to identify any features or details that would have improved the system.

322. Second, the use of credits during game play, not just to engage in game play, would have enhanced the user experience. For less skilled players, the ability to purchase items that advance the player to the next level would have prevented the player from becoming frustrated. For more advanced players, the ability to earn credit during game play would have made the game more interesting.

B. A POSITA Would have Had a Reasonable Expectation of Success

323. A POSITA would have been able to implement the use of credits during game play taught by Schneier143 into the game system of Walker with a reasonable expectation of success.

324. First, the systems of Walker and Schneier143 have substantially similar structures and functions. Given that Walker and Schneier143 share the same inventors, these structures and function even share the same names. Importantly, Walker and Schneier143 use credits in the same way. Indeed, Schneier143 merely discloses more detailed functionality.

325. Second, it would have involved a combination of known technologies (processors, memory) according to known methods (programming) to yield the

predictable result of adding more functionality to an object in the game—namely, credits.

C. Dependent Claim 4: “The system for electronic game play of claim 3 wherein the player's club information includes information on non-cash item is an image.”

326. In my opinion, Walker in view of Schneier143 renders obvious this limitation.

327. Schneier143 discloses that credits can purchase items that allow the player to advance in the game (*non-cash item is an image*). For example, Schneier143 discloses “[e]xtra credits can be required to complete restricted stages of a game” or “the player could be charged an additional credit for the use of a special weapon, access to a map of the dungeon, or hints on avoiding traps.” Ex. 1008 at 63:12-19. Schneier143 also discloses how “[e]ach credit might also buy a certain number of lives.” *Id.*, 63:37-38, 63:8-11.

328. I have asked to consider the position that this limitation is met with an image displayed to the user of a non-cash item for purchase. I also note that the ’279 patent does not use the term *image* in relation to virtual money, non-cash purchase, or advancement to another level.

329. A POSITA would have understood that the purchase of a non-cash good such as access to restricted portions of the game, game items, or lives, would include

an image. Each purchase would need to be reflected in the display of the game through an image, so that the user could use that purchase to advance to another level. For example, the game would necessarily need to display an image indicating “level unlocked” to explore additional levels. Similarly, the game would necessarily need to display a special weapon to allow the player to use it to advance to the next level. The game would also necessarily need to display the map or hints to navigate to an advanced stage of the game, respectively. Further, the game would necessarily need to display the number of lives to continue playing the game to the next level.

330. A POSITA would have been motivated to modify the *player’s club information* of the Walker system to include non-cash item images as taught by Schneier¹⁴³ because it would have tailored the experience to the user. A POSITA would have had a reasonable expectation of success because it would have required a mere change of programming.

XIII. SECONDARY CONSIDERATIONS

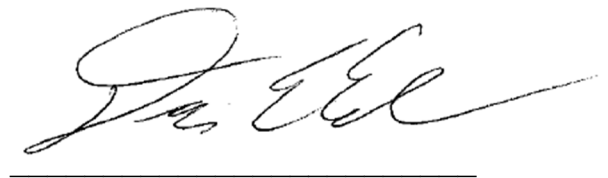
331. I am not aware of any secondary considerations of non-obviousness for the claims of the ’279 patent. If Patent Owner raises any secondary considerations in its briefing or expert’s declaration, I reserve the right to respond to those considerations.

XIV. CONCLUSION

332. For all the reasons stated above, it is my opinion that the challenged claims of the '279 patent are unpatentable.

333. This declaration and my opinions are made to the best of my knowledge and understanding, and based on the material available to me at the time of signing this declaration. All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true. Further, I am aware that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001. I declare under penalty of perjury that the foregoing is true and correct.

Executed this 27th day of March 2025 in Walnut Grove, Missouri.

A handwritten signature in black ink, appearing to read 'Dwight Crevelt', written over a horizontal line.

Dwight Crevelt

Declaration of Dwight Crevelt in Support of
Petition for *Inter Partes* Review USP No. 11,393,279

APPENDIX A

Exhibit No.	Description
1001	U.S. Patent No. 11,393,279 to Katz, et al. (“the ’279 patent”)
1002	File History of U.S. Patent No. 11,393,279
1004	Curriculum Vitae of Dwight Crevelt
1005	U.S. Patent No. 8,172,683 (“Kelly683”)
1006	U.S. Patent App. Pub. No. 2004/0002369 (“Walker”)
1007	U.S. Patent App. Pub. No. 2005/0153768 to Paulsen (“Paulsen”)
1008	U.S. Patent No. 5,970,143 to Schneier et al. (“Schneier143”)
1011	U.S. Patent No. 6,511, 377 to (“Weiss”)
1012	U.S. Patent No. 5,371,345 to (“LeStrange345”)
1013	U.S. Patent No. 5,470,079 to (“LeStrange079”)
1014	U.S. Patent No. 5,326,104 to (“Pease104”)
1015	U.S. Patent No. 5,766,076 to (“Pease076”)
1016	U.S. Patent No. 5,855,515 to (“Pease515”)
1017	U.S. Patent No. 5,902,983 to (“Crevelt983”)
1018	U.S. Patent No. 6,347,738 to (“Crevelt738”)
1019	U.S. Patent No. 6,547,131 to Foodman (“Foodman”)

Declaration of Dwight Crevelt in Support of
Petition for *Inter Partes* Review USP No. 11,393,279

Exhibit No.	Description
1020	Dwight & Louise Crevelt, <u>Slot Machine Mania</u> 186-889, 224-27 (1988-89)
1021	Dwight & Louise Crevelt, <u>Video Poker Mania</u> 120-123 (1991)