Title: VIDEO TRAINING AND GAMING METHOD FOR COMPARING EVENTS

Abstract: A computerized training and gaming method includes the steps of (1) registering a player, the current player, through the use of an authentication routine; (2) retrieving current player information from a database on a server-side secure database; (3) providing the opportunity for the player to select an event type and event contestants, and awaiting his input; (4) when the player chooses an event type and at least one contestant, presenting the player with a video clip of the selected contestant(s); (5) after the playing of the events, soliciting the player’s estimation of who won the event or, based upon predefined (absolute, subjective, qualitative or quantitative) criteria; (6) evaluating the player’s response and reporting to the player as to whether he was correct; (7) reporting the results to the player, including, optionally, evaluating any related criteria, such as the player’s losses or gains, based upon the correctness of the player’s estimation and reporting the same to the player and showing the events using video superimposition technology.
VIDEO TRAINING AND GAMING METHOD FOR COMPARING EVENTS

Background of the Invention

This invention relates to the activities of training and gaming, and, more particularly, to sports training and sports-theme gaming using the Internet.

The use of the Internet has seen rapid growth over the last few years, fueled in significant part by availability and use of web software that permits access, via a graphical user interface ("GUI"), to network servers that are part of the World Wide Web. These servers provide access to documents known as "web pages" or "web sites" using a Hypertext Transfer Protocol ("HTTP"). HTTP is an application protocol that provides user access to these web pages having various formats including text, graphics, images, sound, and dynamic features. Hypertext Markup Language ("HTML") is the standard page description language used with HTTP and provides basic document formatting. HTML allows a web page developer to specify these hypertext links to other servers and to other files. A user using an HTML-compliant browser may specify a link via a Uniform Resource Locator ("URL"). When the user does so, the client browser makes a transmission control protocol/Interface protocol ("TCP/IP") request to the server associated with the link and consequently receives the corresponding web page formatted according to HTML (note that XML, a possible replacement to HTML, functions in a similar fashion).

Sporting events have been broadcast over the media of television and cable for many years. Recently, broadcasts over the Internet have taken place.

Due to the nature of sporting activities, it is necessary to make a comparison between competitors. The comparison can be made based on artistic content, form and absolute criteria, such as speed, height or distance. For this purpose, software applications in sports training have been developed, their use having become widespread in many professional sports activities. Today, it is common for videos or video clips of athletic events to be viewed in order to learn to improve style and form, as well as to learn what might be the weaknesses of an opponent. Traditional broadcast means such as slow-motion video, instant replay, and time sequence (video showing the position of an athlete at particular, usually uniform, time intervals) video are used to view a particular instructive sports activity. Comparisons have often been made using split-screen methods, in which videos of two athletes are shown side-by-side simultaneously. However, it is difficult to fully appreciate the relative positions of each athlete, due to the physical space between the videos.

In the gaming industry, many games are available for implementation on the Internet. Sports games exist, but are generally related to fictional action and role-playing, in which players assume roles or take sides on teams of their choosing, and play a game, the results of which are determined by
numbers generated randomly, in order to “create” an unpredictable result.

The current technology around gaming, betting or gambling covers a broad spectrum of activities. All manner of card games and casino-oriented activities are found on the Internet. In sports in particular, one can find many sites which permit betting on events before they occur and then, presenting the results to the players after the events.

These Internet sports games do not directly involve near real-time sporting events or relatively live events. None allows a player to visually qualitatively and quantitatively compare the performance of two competitor athletes, near the time that the events are taking place.

Therefore, what is needed is a method of gaming based on comparisons of video clips of actual sporting events. More specifically, what is needed is a means of first comparing video clips of the performances of two athletes, guessing the outcome (anything related to the performance of a particular event), and then comparing the performances by superimposing the performances. Further, what is needed is a game providing interesting player interaction with the interface of such a game, and, interaction with other players as well.

Summary of the Invention

A computerized method includes the steps of (1) transmitting a selection interface to a user to enable him to select an event type and event contestants; (2) awaiting input from the user/player (hereinafter interchangeably “user” or “player”), optionally, after the user has viewed introductory information including possible animations; and (3) when the user selects an event type, transmitting an image or series of images to the user, giving him the opportunity to view contestants in an event.

After the playing of the events in a side-by-side presentation, the method solicits the user’s estimation of who won the event, based upon predefined (quantitative, qualitative, absolute, or subjective) criteria, and whether he would like to become bound to the result with respect to the points which the player may win or lose, considering the odds, if any, which apply. After the user responds with an estimation, the method evaluates the user’s response and reports to the user as to whether he was correct, including, optionally, evaluating any related criteria, such as the user’s losses or gains (including multiplying the result by any odds), based upon the correctness of the user’s estimation and reporting the same to the user.

In a feature of the invention, in order to verify the absolute results, the videos are superimposed using video superimposition technology in which each athlete’s performance is synchronized in time, and the superimposed video is played to the player in order to clearly show the relative performance of
each athlete.

In another feature, players may select a criterion against which their answer will be judged, thus enabling comparisons with other user’s guesses, with experts, or with absolute results.

An object of the invention is to provide an interesting interactive means of comparing relative performances of athletes.

Another object of the invention is to provide a means to attract players in order to generate advertising revenue through banner and other advertising graphics presented on the graphical user interface of the game.

Brief Description of the Drawings

FIG. 1 is a block diagram of a system on which the method is implemented.
FIG. 2 is a block diagram of an alternate system of the invention.
FIG. 3 is a block diagram of a client/server architecture of the present invention.
FIG. 4 is a detailed diagram of a client/server architecture of the present invention.
FIG. 5 is a block diagram of the elements of the method showing their interaction.
FIG. 6 is a schematic diagram showing HTML layers used in the invention.
FIG. 7 is a flow chart of the guessing game method.
FIG. 8 is a screen print showing the opening page presented by the method.
FIG. 9 is a screen print showing an interactive page in which a player makes his game choice.
FIG. 10 is a screen print showing the prior art method of comparing athletes’ performances.
FIG. 11 is a screen print showing the interface that permits the player to input his choices after having viewed the performance presented in a prior art manner.
FIG. 12 is a screen print of the results page of the invention.
FIG. 13 is a screen print of the results presented using video superimposition technology.
FIG. 14 is a schematic diagram of the basic hardware configuration of the superimposition technology.
FIG. 15 is a screen print of the statistics page of the invention.
FIG. 16 is a flowchart of a preferred embodiment of the invention.
FIG. 17 is a flow chart of a gaming embodiment of the invention.

Detailed Description of the Preferred Embodiment

The content of the application to which priority is claimed, US provisional application serial number 60/158623, is incorporated herein by reference thereto. Further, the contents of the following

Referring now to FIG. 1, which is a block diagram of a typical system 20 for practicing the various embodiments of the present invention, the invention provides a system 20 and method 60 for guessing (or betting) on two or more athletes or competitors. The guessing game method 60 is implemented over a network including at least one computer 22 and a server 25 or 54 (shown in FIG. 2) connected by a network connection (e.g., 27). The computer 22 can be a simple PC or be a specially adapted interactive entertainment machine (such as WebTV, Interactive TV, Pay-per-View, Set Top Boxes, Java Machine, mobile phone with WAP technology, or screen phones, etc.).

The guessing game method 60 of the present invention is encoded on a computer-readable medium and operates between a computer system 20 and a server 25 or 54 (shown in FIG. 2) on an intranet/the Internet or on a stand-alone computer. Such a computer system 20 typically includes a computer 22, a display device 24, an input device 26 such as a keyboard, a primary storage device 30 and a secondary storage device 32. After loading of software encoded with the method 60 of the invention or after accessing the server 25 or 54 through a browser such as Internet Explore 5.0, as the case may be, the display device 24 displays a graphical user interface ("GUI") 34 for facilitating the display of text and graphics for the user. Display devices 24 include printers and computer display screens such as a CRT, LED displays, LCDs, flat screens, screen phones, and projectors. Input devices 26 are numerous and include keyboards and pointing devices such as a mouse 27 having a left mouse button 28 and a right mouse button 29, a trackball, lightpens, thumbwheels, digitizing tablets, microphones using voice recognition software, and touch screens and pads.

The computer 22 includes a CPU 36 as well as other components with which all who are skilled in the art are familiar. For a detailed discussion of these components and their interaction, see U.S. Pat. No. 5,787,254, the content of which is incorporated by reference. The secondary storage 32 supports the guessing game method 60, preferably HTTP-compliant, as well as a number of Internet access tools. The secondary storage 32 may also support other Internet services including mail transfer protocol (SMTP), e-mail, file transfer protocol ("FTP"), network transfer protocol ("NNTP") or "usenet" and remote terminal access (Telnet). The CPU 36 fetches computer instructions from primary storage 30 through an interface 40 such as an input/output subsystem connected to a bus 42. The computer 22 can be, but is not limited to, an "IBM APTIVA" computer, a product of International Business Machines Corporation of Armonk, New York, or any computer compatible with the IBM PC computer systems based on the X86 or Pentium(TM) series processor of Intel Corporation or compatible processors, or any
of the "SPARC" station or "ULTRA" workstation computer systems available from Sun Microsystems, Inc. of Mountain View, California, any "MACINTOSH" computer systems based on a "POWERPC" processor and available from Apple Computer, Inc. of Cupertino, California. The CPU 36 utilizes an operating system that, depending on the hardware used, may be DOS, "WINDOWS 3.X", "WINDOWS XXXX", "NT", "OS/X", "AIX", "LINUX", or any other suitable operating system. The CPU 36 executes these fetched computer instructions. Executing these instructions enables the CPU 36 to retrieve data or write data to the primary storage 30, display information on one or more display devices 24, receive command signals from one or more input devices 26, or transfer data to secondary storage 32 or even other computer systems which collectively form a computer network 25 (shown in FIG. 2). Those skilled in the art understand that primary storage 30 and secondary storage 32 can include any type of computer storage including RAM, ROM, application specific integrated circuits ("ASIC") and storage devices that include magnetic and optical storage media such as a CD-ROM.

Where the method 60 operates on a stand-alone computer 22, the primary storage 30 stores a number of items including the method 60 and a runtime environment 46. The runtime environment 46 typically is an operating system that manages computer resources, such as memory, disk or processor time, required for the method of the invention to run. The runtime environment 46 may also be a message passing system, a microkernel, dynamic loadable linkable module(s), or any other system that manages computer resources.

Referring now to FIG. 2, an alternate system 23 implementing the method 60 of the present invention is shown. The system 23 includes client computers 22 arranged in a network 25 and a local server 25 that hosts the method 60 for operation across a local network. Alternately, a network device 27 connects the computers 22 with an online service provider 28 such as CompuServe, America Online, and/or an Internet access provider 29. The online service provider 28 and Internet access provider 29 permits connection to the remote server 54 that hosts the method 60.

FIG. 3 illustrates a block diagram of a client/server architecture that can be utilized in accordance with the method 60 of the present invention. User requests 50 for information are sent by a client application program 52 to a server 54. As mentioned in the previous paragraph, the server 54 can be local or a remote computer system accessible over the Internet or other communications medium. Client application program 52 may be utilized with computer 22 of FIG. 1. Here, server 54 is encoded with the method 60 of the invention.

FIG. 4 illustrates a detailed block diagram of a client/server architecture that can be utilized in accordance with the method 60 of the present invention. Although the client 52 and server 54 are
processes which are operative within two computer systems, these processes being generated from a high-level programming language (e.g. PERL), which is interpreted and executed in a computer system 20 at runtime (e.g., a workstation), it can be appreciated by one skilled in the art that they may be implemented in a variety of hardware devices, either programmed or dedicated. Client 52 and server 54 communicate using the functionality provided by, for example, PERL or Java and by a TCP/IP connection 72. The World Wide Web includes all the servers adhering to this standard that are accessible to clients via Uniform Resource Locators ("URLs"). Active within the client 52 is the gaming method 60 of the present invention, which establishes the connections with the server 54 and presents information to the user. Server 54 executes the corresponding server software that presents information to the client in the form of HTTP server responses 62. The HTTP responses 62 correspond with web pages represented using HTML or other data that is generated by the server. The user views a web page using a browser 61 that presents the guessing game method 60 of the present invention. The web page contains data and a layout language that describes how data should be displayed. The layout language used within each web page is predominantly HTML, but may also include "JAVA", "JAVASCRIPT", VRML, XML or any other language that supports animation. The guessing game method 60 accepts the data and the layout language and in response, produces a graphical image containing text, graphics, animation and various other types of multimedia. The tools needed to implement the guessing game method 60 are known in the prior art (e.g., see background section). In addition to the HTML functionality 64 provided by server 54 (i.e., display and retrieval of certain textual and other data based upon hypertext views and selection of items), Active Server Pages ("ASP"), Java Server Pages ("JSP"), or a Common Gateway Interface ("CGI") 66 is provided which allows the client program to direct server 54 to commence execution of a specified program contained within server 54. The ASP program runs on the server 25 or 54 and sends variables from databases to the client 52. Using this interface and the HTTP responses 62, the server 54 may notify the client 52 of the results of that execution upon completion of the program steps.

Referring now to FIG. 5, a block diagram shows the interaction between a control page, called the controller page ("Index.html") 80, "MEDIAPLAYER" 82 by Microsoft Corp. or REALPLAYER by RealNetworks, and "FLASH 4" vector graphics animation technology by MacroMedia. The method 60 uses FLASH 4, 84, and video streaming technology, which are integrated, using JavaScript (or Active Scripting or VBScript) functions 86 and HTML layers (shown in FIG. 6) in an Active X controlled (JavaScript) environment where the animation triggers the playing of a video 90 and the video triggers the animation 88. Messages are sent to the JavaScript 86 from the animation 88 (the graphical user
interface 34) and messages are sent to the JavaScript from the video 90 in the form of script commands to the index.html 80.

Referring now to FIG. 6, the controller page 80 is an HTML page composed of JavaScript functions and having three HTML layers (layers are optional as in www.sfdris.ch/ski or when the video is embedded in the animation as in http://mediaworld.vptt.ch/athletissima/) as a series of still pictures (using Adobe Premiere 5.1 for example). The HTML layers that are displayed, one above the other, simultaneously, depending on what is to be visible to the player at a given point in the execution of the method 60. The layers include a background layer 92, an animation (or Flash) layer 94, and a video (MPlayer) layer 96 that are placed on top according to commands of the index.html 80. Referring to the code listing, the first JavaScript function of the controller page 80 is to receive messages from scripts in the video that triggers the animation 88. The following six functions receive messages from the animation 88 and trigger the video. Following these function definitions, the three layers are described. Then the FLASH object is initialized and described and the MEDIAPLAYER object is initialized and described. Comments, interposed throughout the code, clearly describe the above-mentioned functions and portions of the code.

In another embodiment, method is simply a single composite animation without the JavaScript and the video parts. In this embodiment, the "animation" is composed of many animations that can interact within the Flash player. This is essentially an all-Flash solution that eliminates the need for two of the three components (described above), namely, Javascript/HTML page, and a Video Player. All that is required is just one Flash animation. The video is integrated into this animation or loaded into this animation as another Flash animation. The video is converted into Flash format by segmenting the video into a series of JPEG images (JPEG is a image compression format) and then putting all these images into one Flash file that will play them one after the other at a sufficient speed that it seems like video to the user using what is called MJPEG (motionJPEG) technology. It is similar to using the flip-it movies where pictures are drawn on each page of a stack of paper and flipped giving the effect of a moving animation.

Referring now to FIG. 7, wherein is presented a flow chart of the method 60, the guessing game method includes the following steps. In a first step 201, the method 60 registers a player, the current player, through the use of an authentication routine, and retrieves current player information from a player database on a server-side secure database. In a second step 202, the method 60 provides the opportunity for the player to select an event type and event contestants, and awaits his input. In a third step 203, when the player chooses an event type and at least two contestants, the method 60 presents the
player with a video clip of each event, one after the other in series, or in parallel adjacent to one another as in a split screen view, optionally, in real-time.

In this context, real-time generally includes events that have taken place only a short period before broadcast on the Internet. This could be on the order of the few seconds that it takes to convert the video to Internet format (Flash files) and upload them to the server (where-ever it happens to be). Real-time may also mean the time (on the order of a few minutes) that it takes to convert the video to Internet format (Flash files), upload it to the server, decide which ones have to be used for guessing (which against which) and to furnish the answer to the game, together with the time required for other actions like determining the odds and relative winnings (for multiple views of a basketball shot or different amounts of information being shown-- the less information the higher the winnings etc.).

In a fourth step 204, after the playing of the events, soliciting the player's estimation of who won the event based upon predefined (quantitative or qualitative) criteria. In a fifth step 205, the method 60 evaluates the player's response and reports to the player whether he was correct. In a sixth optional, step 206, the method 60 presents a superimposed, synchronized video image of the two events, for verification purposes. In a seventh step 207, the method 60, optionally, evaluates any related criteria, such as the player's losses or gains, based upon the correctness of the player's estimation and reports the same to the player.

Optionally, prior to the registration step above, the method 60 sends out e-mail notices, pages, or SMS (Simple Messaging Service) announcements of upcoming events to prior players, for which the method has stored details in the player database, in order to provide information about upcoming events to likely participants. Players may be sent e-mail or SMS announcements of new current sports that are added to the video database so that they can play. Further, sports news may be added to these e-mails, to improve their content, so that recipients can remain current with sports or other news.

Referring now to FIG. 8 , the method 60 presents the players with an opening screen 100 into which each player is queried to input his name/password into a name input field 102. Each player confirms such inputs and passes to the next animation 88 by clicking on the arm 104 using the mouse 27. A player is then authenticated on a player database on the server-side and his particulars are stored on the player database as well. Alternatively, a player is authenticated using a cookie, resident on his computer, by using the player's name and password, which, upon entry of a name in the name field 102, compares the input name with the name stored on a cookie sent to the player and placed on the player's computer upon the player's initial logon to the game. Hardware and software, including database interactions, suitable for this purpose are described in U.S. Patent 5,560,008, to Johnson et al., the
content of which is hereby incorporated by reference. The method 60 then retrieves additional information about the players in the database, such as which sports he has played in the past, his performance (which games he's won and lost), how many points (for which he previously negotiated to obtain) he has in his account, personal data, such as the player's e-mail address, etc. Further, the method allows players to establish and maintain accounts and to not have to continually transfer points every time he plays. In this way, it is possible to play by guessing or betting on certain sports and then continue with your earnings or losses at a later time with different sports. All such information may be cross-referenced. Interrelations are then defined for shared access across a network using a relational database. Using e-commerce methods known in the art, it is possible for the player to use points that are a money substitute or real money (using, for example, secure socket technology or shopping cart software, currently in use on the Internet).

More specifically, the method 60 employs four CGI (or JSP or ASP) programs, namely, an authorization program that sends the player password to the player database; a get-player-information program which asks for player information or gets it from the player database; a update-player-information program which updates the player database after player interaction affects data stored in the player database; and a statistics program which retrieves information from the player database and a sports statistics database associated with video clips stored in the video database. Each program takes information from and passes information to the Flash (i.e., acts as a messaging service).

Further, the player is presented with an HTML form into which he inputs his personal preferences, including limitations on the amount of points which he is willing to loose over a gaming session. For example, if the player does not wish to lose more than 100 points or tokens, then, if the player places a wager on an outcome in which the odds are 12 to 1 against him, the method 60, when it accesses the data input into this form and reads and compares the loss limitation to that which results if the amount bet is multiplied by 12, it will not permit the player to make this bet until the user overrides this limitation by some affirmative means, such as responding to a query presented by an input window.

Referring now to FIG. 9, the method 60 then presents the player with an interactive screen 110 from which he may choose from a list of possible sports 112 based on sporting activities that are available at the time. The player is given the opportunity to choose the sport 112, and, once the player chooses a sport or event, the player is presented with an APPLET or animation which includes a table comprising a selectable listing of athletes, and, optionally, different events which each athlete participated which may be compared one with the other, and upon selection of the athletes, the player is presented with the statistics of each athlete selected, and subsequently, with particular athletes within
that sport to compare and, including any odds which might apply in calculating the amount of points won or lost should the players selection of the winner be correct or incorrect, and the method awaits the player’s inputs, including the player’s confirmation of his acceptance of any odds which might apply in calculating the amount of points won or lost should the players selection of the winner be correct or incorrect. The method 60 then solicits the player’s input as to whether he would like to continue and, consequently, become bound to the result as concerns the points which the player may win or loose.

Referring now to FIG. 10, when such inputs are received, the player is then shown video clips 120 of the at least two athletes selected by the player, separately performing their sport in proximate fashion (such as side-by-side or in series or split-screen).

It should be noted that it is not necessary that videos be displayed, but that it is within the scope of this invention to compare data, such as time data, the verification taking place visually through the use of video superimposition technology, or by presenting the correct quantitative data. Further, it should be noted that superimposition technology is evolving and will soon include superimposing 3-D video images. Still further, virtual reality features may be applied to simplify the transmission of the images of the athletes, thus enabling transmission of virtual representations of actual events, and superimposing the same, to personal communication devices such as cell phones with graphics capabilities.

Referring now to FIG. 11, after the playing of the video clips 120, the player is queried, by means of two selectable buttons 122, as to which of the athletes turned in the best performance with respect to pre-defined criteria agreed to by the player in advance (e.g., the time closest to a displayed handicap or a target time) or for an amount of points to wager on the outcome. The criteria is preferably based on the actual performance criteria of the particular sport (speed, height, length, errors). The method 60 then checks the data in the user database to ensure that there are sufficient funds in the user’s account to cover the worst-case loss (based on odds) and, if the potential loss exceeds the funds which the player has in his account, the method will not permit the player to continue, and will ask the user to choose another amount or to transfer additional funds to his account. The method 60 then awaits the player’s input. Optionally, by selecting the appropriate input button such as absolute 124, vote 126, or judges 130, the player may choose subjective criteria, such as the guess of the number of all players who are currently guessing, the average of all guesses, or the opinion of expert judges. Further, a field 132 is provided to enable the player to wager points. Clicking on the arm 104 registers the player’s selection.

Referring now to FIG. 12, if the player provides the appropriate inputs and his estimation is correct, then the method 60 attributes points to the player, multiplied by any factor adjusting odds, and displays such results in results fields 134. The player then receives credit or a debit to his points.
account, in accordance with the accuracy of the player’s selection, and the player database is updated with the new information, thus blocking the ability of this player from betting on the same sporting event again. The method 60 displays the results of the player’s estimation. Of course, a clickable button 136 may optionally be provided to permit the player to review the events, should he choose to do so. If the player’s estimation is incorrect, the method 60 informs the player of the loss in a results field 134 and deducts the appropriate points from the player’s account. The method 60 then asks the player if he wishes to continue playing via an input field 140.

The sports or any other events capable of comparison are chosen by the player from a database of (sports or other comparable events) that is constantly updated with choices from current sporting events, such as skiing preferably during ski season, Formula 1 preferably in Formula 1 season, bobsledding, track and field, etc.

Referring now to FIG. 13, in an optional step 206 (shown in FIG. 7) of the invention, to verify the absolute results of the comparison of the two events, the video clips 120 of each event are superimposed using video superimposition technology, in which each athlete’s performance is synchronized in time and superimposed in space, and the superimposed video 140 is played to the player in order to clearly show the relative performance of each athlete. The method 60 then displays the quantitative or official performance results of the compared events (which should be clear from the superimposed video sequences which the player has viewed) and the player’s database entry is updated with the new current information (wins, losses, sports, athletes, amount of wager of points, etc.).

Referring now to FIG. 14, in this embodiment, using superimposition technology, the APPLET or animation presented to the player which allows the player to select the sport, athletes, and events in which the athletes participated, for comparison purposes, includes further options in that the player may select sections 250 of a sporting course over which to compare the selected athletes’ performances. This is possible where cameras, placed at predetermined locations in 3-D space along the route, are used in conjunction with start and stop sensors such as laser devices 252 that cross the course at certain points. The comparisons are then synchronized based on the time kept for each athlete (by his having triggered the switches placed at start and stop intervals). This permits sections of one athlete to be compared with the same sections for another athlete, and a judgment to be made as to who the winner is, usually based on quantitative criteria such as time, thus making knowledge of who actually won the race irrelevant. Thus, sections encompassing difficult terrain, difficult turns, jumps or other characteristics, can be focused on. For example, the fastest 5th lap in a car/motorcycle race, or for skiing, who had the fastest middle section of the Wengen downhill race, can be compared.
Referring now to FIG. 14, further, this embodiment, including the switches which are connected to a timer 150 are placed over a course, thus defining the sections of the course, permitting the comparison to be made on a time basis between the same athletes over several different runs or of different members of the same team of athletes compared to counterparts of another team. For example, one athlete's best times over all sections of the course could be combined to create a best time and performance over the entire course. Further, the best time over a section of the course for a team member may be added to the best times of other team members in order to yield a best team run overall, for comparison with other best team runs overall for other teams. These best team (best possible combination time) runs may, of course, be compared to the best contiguous (non-spliced) run of a single athlete.

Referring now to FIG. 15, statistics based on information in the player database, in the form of histograms or bar charts, are presented to the player. For example, a first histogram 160 showing the most popular sports 162 chosen by users is presented. This is accomplished by graphing the sport type 162 (on the x-axis) against the percentage of players who play that sport (on the y-axis). In a second histogram 164, the frequency of winners is shown by graphing the sport type against the percentage of winners for each sport. Further, the ranking 166 of the player in comparison with the total number of players 170 is displayed as a relative player number, so that the player will know his own relative performance. At this point as well, the player is permitted to enter a chat room or otherwise communicate with other players after the wager is resolved. The player may choose to "dial" into a chat room and chat with other players who lost, excluding those who won, or to chat with those who won, in order to glean insights from such successful players.

Referring now to FIG. 16, in another embodiment, a computer-readable medium is provided encoded with a method 60' of entertainment. The method 60' has three basic steps. In a first step 190, the method 60' transmits a selection interface to a user to enable him to select an event type and event contestants. In a second step 192, the method 60' awaits input from the user, optionally, after the user/player has viewed introductory information including possible animations. In a third step 194, when the user/player selects an event type and contestants, the method 60' transmits an image or series of images to the user/player, giving him the opportunity to "view" contestants in an event where comparison or detailed analysis is desirable.

In the above-described context, "view" refers to the user/player being given a number of possible views that include presentation of all possible data types. For example, the user could "view" a video or other 2D or 3D graphic, skeletons or layered physical animations or computer animations or any other
visual representation of the information in the event. This information could also include telemetry data, video, stereo vision (with goggles or the like), stereo images (sound, acceleration, temperature, speed, physiological data such as temperature, heart rate etc.) and all other possible measured data from the physical event.

In a feature of this embodiment, the system operates in Real-time or near Real-time, as defined above.

In another feature, the contestants that the player chooses to view can be viewed separately or using a visual effect tool such as VideoFinish/SimulCam, as described in US Provisional Patent Application Serial No 60/158,623, the content of which is incorporated herein by reference, «STROMOTION», as described in US Provisional Patent Application Serial No 60/195,233, the content of which is incorporated herein by reference (STROMOTION is a proprietary method of InMotion Technologies which use sequential movements of something composited in the same video or picture), Trajectories (trails of colored lines showing the path of an object in a video), mask/background extraction (isolating an object in a video or image), painting (such as painting a football a different color), Slowmotion (slowing down the speed of a visual presentation), or Fastmotion (speeding up the visual presentation), Frame by Frame motion (viewing media by incrementally, interactively advancing or reversing), or other visual effects or other cameras (such a 360 camera) or camera angles. Generally speaking, any enhancement that adds visual information or allows easier or more dramatic comparisons may be used in conjunction with the invention.

In another feature, the player views other information as well as all possible data measured from the physical event and also relative to the event (this is known as data fusion) such as world records, important dates, times, equipment brands, logos, advertising, quotes, news, commentary, sound/voice clips, historical information, or other heterogeneous data. This data could include distance, speed, acceleration, or telemetry data from other equipment such as a GPS (Global Positioning System) or the like.

In another feature, the visual information (and all other possible data related to the physical event) is synchronized with real or virtual maps or animations or 3D representations or any of the other possible types of data related to the physical event (such as commentary, or graphs, text, hotlinks etc.). Telemetry data (such as GPS equipment) is used to provide other relevant information. Still further, other data measured from the physical event such as that recited above could be synchronized to appear a specific times or locations.

In another feature, the user has the option to choose various criteria to create a virtual "user-
defined race. For example, the user could choose a drag race in which two cars normally racing in a substantially proximate physical environment, are brought side-by-side in a virtual fashion with visual and other information from different times or places broadcast to the video database and available for viewing by players for comparison in substantially real-time. This alternative to the physical staging of the event would be completely flexible and safe. Thus, the events can be displayed in substantially real-time, video superimposition technology being applicable for verification purposes.

In this embodiment, training exercises could be held where one competitor competes at a time against the clock and the race is created later using this technology to view the action safely. While surfing, users choose who they want to compete from a list of racers who have already completed a trial lap. Users could bet on who would win these 'user defined races'.

In another embodiment, telemetry systems, such as GPS, are used to create the same kind of gaming application and yet another embodiment that involves 3D images and telemetry data to create the game.

In another feature, the user virtually or realistically "views" his performance in the same race or event using a number of possible views that may include all possible data types.

Referring now to FIG. 17, in another embodiment of the invention, the user may game in the following manner. First and second gaming steps 202 and 204 are executed between steps 192 and 194 above, respectively. In the first gaming step 202, after the player chooses an event type and at least one contestant (this could also be a contestant against himself or the player against himself or another), the player is presented with visual accounts (or any other data) of each physical event, presented adjacent one another as in a split screen view where at least two contestants are selected, or one after the other (or any other means of comparing the 2 contestants) and what were the odds depending on the amount of information shown at the time of the guess or bet. In the second gaming step 204, after providing the data (or viewing) of the events, the player is queried for his estimations regarding the event(s), based upon predefined (qualitative or quantitative) criteria. A third and fourth gaming step 206 and 208 are executed after the step 194 above. In the third gaming step 206, the player's response is evaluated and reported to the player as to whether he was correct, including, optionally, evaluating any related criteria, such as the player's losses or gains, based upon the correctness of the player's estimation and reporting the same to the player. In the fourth gaming step 208, the method debits or credits an account of the player based on the results and the given odds.

In a feature of the gaming embodiment, the system operates in real-time or near
Real-time. Events, transferred to the video database and available for viewing by players for comparison in substantially real-time, are displayed and compared in real-time. Events are received by the video database in substantially real-time.

In another feature, the contestants that the player chooses to view are viewed separately or by using a visual effect tool such as VideoFinish/SimulCam, «STROMOTION» Trajectories, mask/background extraction, painting (such as painting a football a different color), Slowmotion, or Fastmotion, Frame by Frame motion provided by InMotion Technologies of Fribourg, Switzerland, or other visual effects or other cameras (such a 360 camera) or by changing camera angles. Any effect may be used that adds visual information or allows easier or more dramatic comparisons. The results of a game can be verified in this way with video superimposition technology or some similar digital video technology.

In another feature, each athlete’s performance is synchronized in time and superimposed in space (using “VIDEOFINISH”/“SIMULCAM”), and the superimposed video is played to the player in order to clearly show the relative performance of each athlete.

In another feature, the method displays the absolute or official performance results of the compared events (the correct or expected response) and the player’s database entry is updated with the new current information.

In another feature, the player is able to view other information, as well as all possible data measured from the physical event, relative to the event (data fusion) such as world records, important dates, times, equipment brands, logos, advertising, quotes, news, commentary, sound/voice clips, historical information, or other heterogeneous data. This data may include distance, speed, acceleration, or telemetry data from other equipment such as a GPS (Global Positioning System) or the like. This information may be provided in the form of hints or available resources for browsing as in an archive to help the estimation process from the gaming method. This would create more “sticky content” for the website.

In another feature, the method 60 includes visual information (and all other possible data related to the physical event) which is synchronized with real or virtual maps, animations, 3D representations or any of the other possible types of data related to the physical event (such as commentary, or graphs, text, hotlinks etc.) Telemetry data (such as GPS equipment) could be used to provide other information. Other data discussed herein, for example in the preceding paragraph, could be synchronized to appear at specific times or locations.
In another feature, the user has the option to choose various criteria to create a virtual race with visual and other information from different times or places. For example, two cars physically drag racing in different countries but virtually racing together may be chosen. The user can then estimate who won based upon predefined criteria.

In another feature, the user has the opportunity to virtually or realistically view his performance in the race or event and estimate who won or how the user himself/herself has performed based upon predefined criteria.

In another feature, the user has the opportunity to bet on different sections or combinations of sections of a race/event, different teams, and combinations of racers or previous races. Alternatively, the user has the opportunity to bet on racers using a system of handicaps to increase the odds. For example, the user may guess that Racer 1 will beat Racer 2's time by at least 5 seconds. Another example of a user's choice might be who jumped the longest on this section or who jumped the longest in all rounds. Still another example of a user's choice would be to guess the correct response to the query "what was the exact location where one athlete overtakes or outperforms the other", and so on.

The gaming applications of the invention can be modified or supplemented using video effects that add interest to the play or event. Further, only a part of the physical event can be revealed leaving the player to guess the outcome. Further, only one contestant need be involved. By way of example, the video effects can involve any of the following:

1. Basketball—stop a throw in the middle and guess if the ball goes into the basket. Further, the user can bet whether or not the basket is scored in a basketball game by watching part of a throw using «STROMOTION».

2. Soccer—on free kicks or penalty kicks, guess if the ball is in or out, or where two players are chasing a ball, who will gain possession. The same may apply for rugby or American football. Guessing could also be applied to goal kicks or a tryout kick or any type of single event.

3. Tennis—guess if a player will return a ball or run across the court in time or whether or not the serve was in or out.

4. Golf—guess if the put will go in (after viewing some sort of model of the green) based on speed and direction.

5. Skijumping/Longjumping/Triplejump—will the jumper beat the record (today's/meet's/world's)?

6. Snooker or Pool—here the user can guess if the ball will finally hit another or be sunk based on the «STROMOTION» or «TRAJECTORY» (tracking the trajectory of its path).
7. Any single competitor competition --- for pool, bowling, any racquet sport, the user may guess whether the ball is over the net, in/out, etc.

In another feature, the user guesses or bets on a race/event and in this guess or bet, the probability of winning can be variable as a function of the time the user chooses to stop the action (at the beginning for high odds or close to the basket for low odds) The more information related to the particular event that is shown (including all possible visual information) the lower the odds will be of the winnings. This feature includes providing the user with the opportunity to choose a different viewpoint or multiple viewpoints before or after he guesses or bets.

In another embodiment, players are presented with an “APPLET”, user-input popup window or animation permitting them to select for viewing various statistics, such as relative statistics of the results of other players compared to himself, or of other players on other sports. These statistics are generated automatically by calculating against the player database.

In another embodiment, players have the option of contacting other players using chat and/or e-mail functionality during the games. The players which are allowed to chat are screened against the player database to ensure that the player cannot chat or e-mail another player who has already played that game in which the same athletes and the same performances have already been compared (to avoid cheating). Such access to chatting with players that have not yet viewed either event can be provided once the side-by-side presentation of the events has occurred but before learning of the results, by selecting an optional button 180 (shown on FIG. 11). This provides the players the opportunity to interact with others of similar interests, and improves the social enjoyment associated with the game. However, the length of time that has passed between the actual events which are being compared and the time of viewing using the method of the invention is a consideration in determining whether or not to allow access to a chat room prior to making the guess, as it will become more likely that other players will know the outcome from third party sources, and thus pass on their knowledge in the chat room environment. Further, Instant Messaging (available on HotMail and AOL) could be substituted for or be complementary to access to a chat room. Using more traditional means, cheating can be minimized by implementing the system and method of the invention in a supervised intranet environment, in which identity is verified by physical ID and cheating by crossing over from one PC to another for advice is prevented by policing through human supervision. Further, thumb printing-retinal scanning technology can be introduced as well.

In another embodiment, already described in some detail, the method 60 is encoded on a CD which operates on a stand-alone computer, or encoded on a downloadable file which is downloaded to a
client computer 22 at which point the method operates independently of the network, wherein the CD includes a library of video files/clips 120 of the performances of a number of different athletes in a selected sport and a database of information, such as statistics, which are retrievable using the method of the invention, herein described.

In still another embodiment, the user can take on the identity of a racer whose run has already been recorded, or, through a random number generated selection, the user may be assigned an outcome selected from a random number generated selection among different times and virtual reality imaging, thus allowing the user to opportunity to compete in the same race (virtually or otherwise) and to bet on the outcomes of that race (for example, the user may bet on how much slower/faster than the professional he might be).

In still another embodiment, the game can be played in a manner that the results are completely random, in which the relative speeds of one sports player are increased or decreased randomly (using a scaled sports run in order to vary the actual time to complete the event) and the actual and/or adjusted video images of each player is superimposed using superimposition technology. In this manner, the outcome of an actual event cannot be known in advance, thus eliminating the possibility of cheating. At the same time, the players are able to enjoy the sport when playing the game. Consistent with this embodiment, the method prompts the user for a handicap. When the user/player’s handicap is input, it is applied (e.g. multiplied) as a scaling factor to a generic skier representing the user in order to set up a virtual competition between the user and an actual professional athlete. Guessing a higher handicap applied to the generic player increases that player’s chances of winning the competition, thus decreasing the odds and therefore also the payout to the user. In this embodiment, the fact that a scaling factor is being applied is communicated to the user/player via a warning message in a popup window presented as a “FLASH” animation.

In another embodiment, the guessing game method 60 provides fields for displaying advertising, and the corresponding code to permit streaming advertising, in order to provide another means of generating income or to provide corporate sponsors who have funded the production of the video clips of the athletes’ performances.

An advantage of the invention is that it provides an interesting interactive means of comparing relative performances of athletes.

Another advantage of the invention is that the player will see the results of the guess visually (not merely by comparison of numbers) and thus will be offered a more convincing settlement for his guess. With prior art technology, the player must be satisfied with simply a time or a slow motion clip of
a split-screen comparison, none of which are as convincing as a superimposed, synchronized image of the two (or more) competitors.

Another advantage of the invention is that it provides a game that is more technical in nature, and therefore more attractive to an Internet audience.

Another advantage of the invention is to provide a means to attract players in order to generate advertising revenue through banner and other advertising graphics presented on the graphical user interface 34 or 88 of the game.

It will be a natural evolution of the features and advantages of the invention to create communities on the net that are interested in a type of sport (like newsgroups, ex: skiing community, mountain biking community, athletics community, etc.). These communities will be able to contribute data to the site such as video or any other information.

A natural evolution of this embodiment would be the creation of communities on the net that are interested in a type of sport (like newsgroups, ex: skiing community, mountain biking community, athletics community, etc.) in which players could be offered single event gaming or hierarchical-type gaming in which players build up points or experience or levels of difficulty from each successive event.

Multiple variations and modifications are possible in the embodiments of the invention described here. Although certain illustrative embodiments of the invention have been shown and described here, a wide range of modifications, changes, and substitutions is contemplated in the foregoing disclosure. In some instances, some features of the present invention may be employed without a corresponding use of the other features. Accordingly, it is appropriate that the foregoing description be construed broadly and understood as being given by way of illustration and example only, the spirit and scope of the invention being limited only by the appended claims.
Claims

What is Claimed Is:

1. A computerized method encoded in a computer-readable medium, the method comprising the steps of:
   (a) transmitting a selection interface to a user/player;
   (b) after the user/player has viewed visual effects tools providing introductory information, soliciting input from the user/player of an event or portion of an event and of contestants for comparison; and
   (c) when the user/player selects an event or portion of an event and at least one contestant, transmitting an image or series of images of each selected contestant to the user/player, giving him the opportunity to view contestant(s) in a comparative manner.

2. The method of claim 1 further including, between steps (b) and (c):
   (a) presenting information about the selected events or portions of the events and optionally, presenting associated odds;
   (ii) soliciting the player’s choice of events or portions of events for comparison; and
   (iii) soliciting the player’s estimation of the results of the event or portion of the event; and in step (c), further evaluating the player’s response and reporting to the player as to whether his estimation of the results was correct; and
   (d) optionally, evaluating any related criteria, such as the player’s losses or gains, based upon the correctness of the player’s estimation and reporting the same to the player.

3. The method of claims 1 or 2 wherein the events or portion of events that the user/player chooses to view are viewed separately.

4. The method of claims 1 or 2, wherein further, to verify the absolute results of the comparison of the two events or portion of events, the videos of each event or portion of event are superimposed using video superimposition technology.

5. The method of claims 1 or 2, wherein each contestant’s performance is synchronized in time and
superimposed in space, and the superimposed video is played to the user/player in order to clearly show the relative performance of each athlete.

6. The method of claims 1 or 2, wherein the manner of displaying the events or portion of events is selected from a group of manners of displaying the events or portion of events consisting of:
   (a) side-by-side display including upper-and-under and diagonal; and
   (b) overlapping superimposition using video superimposition technology.

7. The method of claim 2, wherein, in step (a), the method registers the player through the use of an authentication routine, retrieving current player information from a database on a server-side secure database.

8. The method of one of claims 1 or 2, wherein the events or portion of events are received, displayed and compared in substantially real-time.

9. The method of claims 1 or 2, wherein the events or portion of events occur in a substantially physically remote environment broadcast to the video database and available for viewing by user/players for comparison in substantially real-time.

10. The method of claim 2, wherein the method, in evaluating the player’s estimation, displays the absolute or official performance results of the compared events or portion of events and the player’s database entry is updated with the new current information.

11. The method of claim 10, wherein the events or portion of events are selected from sporting events wherein the results, whether interim or final, are compared.

12. The method of claim 10, wherein the events or portion of events compared are selected from a group of comparable events or portion of events consisting of:
   (a) best runs;
   (b) best team runs; and
   (c) best team runs compared to the best contiguous (non-spliced) run of a single athlete.
13. A gaming method encoded on a computer-readable medium, the method comprising the following steps:

(a) presenting a player with an interface by which he can choose an event or portion of event and at least one contestant, and awaiting his input;
(b) after his input is received, presenting the player with visual events of each physical event or portion of event including optionally displaying the odds at the time of the guess or bet;
(c) querying the player for an estimation of who won the event or portion of event, based upon predefined criteria; and
(d) evaluating the player's response, reporting the results to the player; and
(e) optionally, debiting or crediting an account of the player, based on the results and, optionally, the odds.

14. The method of claim 13 wherein the method reports the results to the player, including, optionally, evaluating any related criteria, such as the player's losses or gains, based upon the correctness of the player's estimation and reporting the same to the player.

15. The method of claim 14 wherein the method displays the absolute or official performance results of the compared events or portion of events and the player's database entry is updated with the new current information.

16. The method of claim 13 wherein the player is able to view data measured from the physical event or portion of event that corresponds to the event or portion of event.

17. The method of claims 1, 2 or 13, wherein the method includes information that is synchronized with other time dependent information.

18. The method of claims 1, 2 or 13, wherein the user/player has the option to choose various criteria to create a virtual race with visual and other information not necessarily associated with a proximate time or location.
19. The method of claims 1, 2 or 13, wherein the user/player has the opportunity to virtually or realistically view his performance in the event or portion of event and estimate who won or how the user/player himself has performed based upon predefined criteria.

20. The method of claims 2 or 13, wherein the user/player has the opportunity to bet on different sections or combinations of sections of an event or portion of event, different teams, combinations of racers or previous races.

21. The method of claims 2 or 13, wherein the user/player has the opportunity to bet on racers using a system of handicaps to adjust the odds.

22. The method of claims 2 or 13, wherein only a part of the physical event is revealed leaving the player to guess the outcome.

23. The method of claims 2 or 13, wherein when the user/player guesses or bets on an event or portion of event and in this guess or bet, the probability of winning is a function of the time the user/player chooses to stop the action, wherein the more information related to the particular event or portion of event that is shown, the lower the odds will be of the winnings.

24. The method of claims 2 or 13, wherein the game can be played in a manner that the results are completely random, in which the relative speeds of one sports player are increased or decreased randomly in a scaled sports run which varies the actual time to complete the event or portion of event and the actual and/or adjusted video images of each player being displayed in a comparative manner.

25. The method of claim 24 wherein the manner of displaying the events or portion of events is selected from a group of manners of displaying the events or portion of events consisting of:
   (a) side-by-side display including upper-and-under and diagonal; and
   (b) overlapping superimposition using video superimposition technology.

26. The method of claims 1, 2 or 13, wherein the event or portion of the event is selected from a group of events or portions of events consisting of basketball, basketball free throws, basketball shots, soccer, soccer kicks, soccer penalty kicks, rugby, rugby kicks, American football, American football kicks,
tennis, tennis boundary calls, tennis serves, golf, golf drives, golf putts, skijumping, longjumping, triplejump, Snooker, Snooker shots, pool, and pool shots.

27. The method of one of claims 1, 2 or 13, wherein the presentation of visual events is a single composite animation composed of many animations that interact within an animation format player wherein the video of each event is integrated into this animation or loaded into this animation as another animation format animation.

28. The method of claim 27 wherein the video is converted into an animation format by segmenting the video into a series of standard compression format images and then putting all these images into one animation format file that displays the images one after the other at a sufficient speed as to mimic video.
Fig. 5
START

REGISTER PLAYER 201

SELECT EVENT 202

PRESENT SIDE-BY-SIDE CLIPS 203

RECEIVING USER GUESS/WAGER 204

COMPARING GUESS TO "CORRECT" RESPONSE 205

OPTIONALLY PRESENTING SUPERIMPOSED, SYNCHRONIZED VIDEO IMAGES FOR VERIFICATION 206

RESOLVING WAGER 207

END

Fig. 7
WELCOME TO THE INMOTION CASINO

PLEASE ENTER YOUR NAME

AND GOOD LUCK!
WELCOME TO THE INMOTION CASINO

CHOOSE A SPORT

- Ski
- Triple Jump
- Long Jump
- Equestrian

Pull here...
The traditional way to compare 2 athletes
WHO WON

Criteria

Absolute

Judges

Right

122

180

Enter a chat room

124

130

126

SEE IT AGAIN

YOU HAVE 375 FRANCS
Please, place your bet:

Left

122

104

Pull here...

132
ATHLETE left WON you won!!!

SEE IT

YOU HAVE 625 FRANCS LEFT

DO YOU WANT TO KEEP PLAYING?

YES NO

Pull here...
THE VIDEOFINISH™ WAY TO COMPARÉ 2 ATHLETES
Statistics

You are the player number 6 of 3022

Percentage of players

Percentage of winners

Ski  Triple jump  Long jump  equestrian

Ski  Triple jump  Long jump  equestrian

Fig. 15
START

OPTIONALLY, PRESENTING INTRODUCTORY INFORMATION

AWAITING INPUT OF EVENT TYPE AND CONTESTANTS FROM THE USER/PLAYER

WHEN THE USER/PLAYER SELECTS AN EVENT TYPE AND CONTESTANTS, TRANSMITTING AN IMAGE OR SERIES OF IMAGES IN A COMPAREABLE FORMAT

END

Fig. 16
BETWEEN STEPS 192 AND 194

PRESENTING THE PLAYER WITH VISUAL ACCOUNTS INCLUDING THE ODDS FOR ANY WAGER HE MAY PLACE

QUERYING THE PLAYER FOR AN ESTIMATION OF WHO WON THE EVENT

STEP 194

EVALUATING THE PLAYER'S RESPONSE AND REPORTING TO THE PLAYER AS TO WHETHER HE WAS CORRECT, TOGETHER WITH ANY RELATED CRITERIA.

DEBITING OR CREDITING AN ACCOUNT OF THE PLAYER, DEPENDING ON THE RESULTS AND ODDS

Fig. 17