

TCS powered official Virgin Money London Marathon App launched for first-ever combined mass and virtual event

India Infoline News Service 294 words 29 September 2021 Indiainfoline News Service INFOIN English Copyright © 2021. Indiainfoline Ltd.

Tata Canaultanay Caniloga (TCC) announced that the official 20

<u>Tata Consultancy Services</u> (TCS) announced that the official 2021 Virgin Money London Marathon app designed and built by TCS, is now available to download from the iOS App Store and Google Play Store.

The company said in a filing on Wednesday that this year's event will be the first London Marathon to include more than 40,000 participants expected on the historic London course and an additional 40,000 taking part virtually from across the world via the app. This revolutionary approach to mass participation events means this year's event is set to be the biggest, and most inclusive, marathon in history.

Spectators at the mass event in London can use the app to:

For those participating in the virtual event, the app offers the following features:

New for this year:

Last year, while elite athletes raced around a loop course in St James's Park, all other participants took part virtually. London Marathon Events won the UK Sport Industry award for (Virtual) Event of the Year for this first virtual London Marathon which saw people around the globe take on the 26.2 miles on a course of their choice between 00:00 – 23:59:59 BST, using the Virgin Money London Marathon App powered by TCS, to register their time. 37,966 people finished the event, setting a new Guinness World Record for the most users to run a remote marathon in a 24-hour period.

Tata Consultancy Services Ltd ended at Rs3,791.60 per piece up by Rs12.6 or 0.33% from its previous closing of Rs3,779 per piece on the BSE.

Click here to see image

Document INFOIN0020210930eh9t0000c

Tata Consultancy Services Limited; Patent Issued for Context based adaptive virtual reality (VR) assistant in VR environments (USPTO 11113080)

2,932 words
28 September 2021
Journal of India
JOUIND
64
English

© Copyright 2021 Journal of India via VerticalNews.com

2021 SEP 28 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of India -- According to news reporting originating from Alexandria, Virginia, by VerticalNews journalists, a patent by the inventors Johri, Vansh (Trivandrum, IN), Tommy, Robin (Trivandrum, IN), filed on March 29, 2017, was published online on September 7, 2021.

The assignee for this patent, patent number 11113080, is Tata Consultancy Services Limited (Mumbai, India).

Reporters obtained the following quote from the background information supplied by the inventors: "With the advent of technologies, computer systems and mobile communication devices have become demanding resources to processing data, for example, user requests. As such, dedicating a live human representative to process user requests has been extremely expensive and is not efficient for long terms. Attempts have also been made to replace human representatives with artificial intelligence (AI) based virtual assistants to respond to user requests, and largely mimic actions of human beings during communication interactions. This has resulted in Investing significant time, cost and effort in training such AI based virtual assistants for training and then making them learn from the training and adopt to various scenarios. However, the ability of responding to user requests at least in part has been dependent on the ability of AI engine and the level of training VR assistants receive. Additionally, the VR assistants at times, find it difficult to identify or recognize the user requests and map them to appropriate functions. This has led to providing poor services in response to receiving user requests."

In addition to obtaining background information on this patent, VerticalNews editors also obtained the inventors' summary information for this patent: "Embodiments of the present disclosure present technological improvements as solutions to one or more of the above-mentioned technical problems recognized by the inventors in conventional systems.

"For example, in one aspect, a method for providing a context based virtual reality assistant in one or more VR environments. The method comprising providing an adaptive virtual reality (VR) assistant application executable by at least one processor configured for VR assistance on a computing device; detecting, by the adaptive VR assistant application, activation of an interface element from a plurality of interface elements; and executing, upon the activation of the interface element, at least one of a first set of instructions and a second set of instructions, wherein the first set of instructions comprises; displaying, in the real time, one or more VR environments upon activation of an interface element; determining, in the real time, a selection of at least one VR environment from the one or more VR environments by a user; displaying, in the real time, the at least one selected VR environment comprising one of one or more corresponding objects and one or more VR characters on the computing device, and generating a VR character for the user specific to the at least one selected VR environment; obtaining, in the real time, a first input comprising a first media message from the user; determining in the real time, using a Natural Language Processing (NLP) engine, a first context based on the media message; and enabling, based on the first determined context, a first interactive communication session between the VR character and one or the corresponding objects and the one or more presented VR characters in the at least one selected VR environment, and wherein the second set of instructions comprises: generating an interactive session user interface by the adaptive VR assistant application on the computing device; obtaining a second input comprising one or more queries from the user; determining a second context of the second input; and generating, by the adaptive VR assistant application, at least one of: one or more responses or a VR environment within the generated interactive session user interface, based on one of: the second input, the one or more responses, the determined context, and any combination thereof.

"In an embodiment, the first media message and the second media message may comprise at least one of a text message, an audio message, a video message, an audiovisual message, a gaze input, a gesture input, or combination thereof. In an embodiment, a second interactive communication may be enabled between the user and the corresponding objects in the generated VR environment based on the second determined context. In an embodiment, text from the first input and the second input are extracted to determine the first context and the second context respectively.

"In another aspect, a computer implemented system for providing a context based virtual reality assistant in one or more VR environments is provided. The system comprising: a memory storing instructions; one or more communication interfaces; and one or more hardware processors coupled to said memory using said one or more communication interfaces, wherein said one or more hardware processors are configured by said instructions to: provide an adaptive virtual reality (VR) assistant application executable by at least one processor configured for VR assistance on a computing device; detect, by the adaptive VR assistant application, activation of an interface element from a plurality of interface elements; and execute, upon the activation of the interface element, at least one of a first set of instructions and a second set of instructions, wherein the first set of instructions comprises: displaying, in the real time, one or more VR environments upon activation of an interface element; determining, in the real time, a selection of at least one VR environment from the one or more VR environments by a user; displaying, in the real time, the at least one selected VR environment comprising one of one or more corresponding objects and one or more VR characters on the computing device, and generating a VR character for the user specific to the at least one selected VR environment; obtaining, in the real time, a first Input comprising a first media message from the user; determining in the real time, using a Natural Language Processing (NLP) engine, a first context based on the media message; and enabling, based on the first determined context, a first interactive communication session between the VR character and one or the corresponding objects and the one or more presented VR characters in the at least one selected VR environment, and wherein the second set of instructions comprises; generating an interactive session user interface by the adaptive virtual reality (VR) assistant application on the computing device; obtaining a second input comprising one or more queries from the user; determining a second context of the second input; and generating, by the adaptive VR assistant application, at least one of: one or more responses or a VR environment within the generated interactive session user interface, based on one of: the second input, the one or more responses, the determined context, and any combination thereof.

"In an embodiment, the first media message and the second media message may comprise at least one of a text message, an audio message, a video message, an audiovisual message, a gaze input, a gesture input, or combination thereof. In an embodiment, the system is further configured to enable a second Interactive communication between the user and the corresponding objects in the generated VR environment based on the second determined context. In an embodiment, text from the first input and the second input are extracted to determine the first context and the second context respectively."

The claims supplied by the inventors are:

"1. A computer implemented method, comprising: providing an adaptive virtual reality (VR) assistant application executable by at least one processor configured for VR assistance on a computing device; detecting, by the adaptive VR assistant application, activation of an interface element from a plurality of interface elements, wherein the plurality of interface elements comprises a VR environment interface option and a communication session interface option; and executing, upon the activation of the interface element, at least one of a first set of instructions and a second set of instructions, wherein the first set of instructions comprises: displaying, in a real time, one or more VR environments upon the activation of the interface element; determining, in the real time, a selection of at least one VR environment from the one or more VR environments by a user; displaying, in the real time, the at least one selected VR environment comprising one of one or more corresponding objects and one or more VR characters on the computing device, and generating a VR character for the user specific to the at least one selected VR environment; obtaining, in the real time, a first input comprising a first media message from the user, wherein the first media message comprise a text message; determining in the real time, using a Natural Language Processing (NLP) engine, a first context based on the first media message, wherein text from the first media message is extracted to determine the first context, wherein a VR environment is rendered based on the text extracted from the media message by the adaptive VR assistant application, and the rendering comprises at least one of selecting and retrieving a determined context based VR environment from the one or more VR environments; and enabling, based on a first determined context, a first interactive communication session between the VR character and the one or more corresponding objects and the one or more presented VR characters in the at least one selected VR environment, and wherein the second set of instructions comprises: generating an interactive session user interface by the adaptive VR assistant application on the computing device; obtaining a second input comprising a second media message including one or more queries from the user; determining a second context of the second input, wherein text from the second input is extracted to determine the second context; generating, by the adaptive VR assistant application, one or more responses and the one or more VR environments comprising one or more corresponding objects integrated within the generated interactive session user interface, based on one of: the second input, the one or more responses, the second determined context, and any combination thereof, wherein both the generated one or more responses to the one or more queries and the generated one or more VR environments comprising the one or more corresponding objects are displayed within same interactive communication session of the same generated interactive session user interface, wherein the adaptive VR assistant application further enables communication between the user and the one or more corresponding objects in the generated one or more VR environments based on the second determined context within the same interactive communication

session of the same generated interactive session user interface, wherein the communication between the user and the one or more corresponding objects in the generated one or more VR environments is enabled by creating a VR character for the user specific to the generated one or more VR environments within the same interactive communication session of the same generated interactive session user interface, and wherein the adaptive VR assistant application further enables the generated one or more VR environments within the same generated interactive session user interface to be maximized based on one or more user inputs provided for full screen view of the generated one or more VR environments and enabling the user to experience the generated one or more VR environments and generating a public speaking simulator, wherein the one or more VR environments are simulated based on user selection and further augmenting the adaptive VR assistant application as a speaker; and extracting, by the NLP engine, at least the text from the first media message, wherein the text is processed to analyze at least one of the first context and the second context and wherein the extracted text is transferred to an asset loader to load content in the one or more VR environments.

- "2. The computer implemented method of claim 1, wherein the first media message and the second media message further comprises at least one of an audio message, a video message, an audiovisual message, a gaze input, a gesture input, or combination thereof.
- "3. The computer implemented method of claim 1, further comprising enabling a second interactive communication between the user and the corresponding objects in the generated VR environment based on the second determined context.
- "4. A computer implemented system, comprising: a memory storing instructions; one or more communication interfaces; and one or more hardware processors coupled to the memory using the one or more communication interfaces, wherein the one or more hardware processors are configured by the instructions to: provide an adaptive virtual reality (VR) assistant application executable by at least one processor configured for VR assistance on a computing device; detect, by the adaptive VR assistant application, activation of an interface element from a plurality of interface elements, wherein the plurality of interface elements comprises a VR environment interface option and a communication session interface option; and execute, upon the activation of the interface element, at least one of a first set of instructions and a second set of instructions, wherein the first set of instructions comprises: displaying, in real time, one or more VR environments upon the activation of the interface element; determining, in the real time, a selection of at least one VR environment from the one or more VR environments by a user; displaying, in the real time, the at least one selected VR environment comprising one of one or more corresponding objects and one or more VR characters on the computing device, and generating a VR character for the user specific to the at least one selected VR environment; obtaining, in the real time, a first input comprising a first media message from the user, wherein the first media message comprise a text message; determining in the real time, using a Natural Language Processing (NLP) engine, a first context based on the first media message, wherein text from the first media message is extracted to determine the first context, wherein a VR environment is rendered based on the text extracted from the media message by the adaptive VR assistant application, and the rendering comprises at least one of selecting and retrieving a determined context based VR environment from the one or more VR environments; and enabling, based on a first determined context, a first interactive communication session between the VR character and the one or more corresponding objects and the one or more presented VR characters in the at least one selected VR environment, and wherein the second set of instructions comprises: generating an interactive session user interface by the adaptive virtual reality (VR) assistant application on the computing device; obtaining a second input comprising a second media message including one or more queries from the user; determining a second context of the second input, wherein text from the second input is extracted to determine the second context; generating, by the adaptive VR assistant application, one or more responses and the one or more VR environments comprising one or more corresponding objects integrated within the generated interactive session user interface, based on one of: the second input, the one or more responses, the second determined context, and any combination thereof, wherein both the generated one or more responses to the one or more gueries and the generated one or more VR environments comprising the one or more corresponding objects are displayed within same interactive communication session of the same generated interactive session user interface, wherein the adaptive VR assistant application further enables communication between the user and the one or more corresponding objects in the generated one or more VR environments based on the second determined context within the same interactive communication session of the same generated interactive session user interface, wherein the communication between the user and the one or more corresponding objects in the generated one or more VR environments is enabled by creating a VR character for the user specific to the generated one or more VR environments within the same interactive communication session of the same generated interactive session user interface, and wherein the adaptive VR assistant application further enables the generated one or more VR environments within the same generated interactive session user interface to be maximized based on one or more user inputs provided for full screen view of the generated one or more VR environments and enabling the user to experience the generated one or more VR environments and generating a public speaking simulator, wherein the one or more VR environments are simulated based on user selection and further augmenting the adaptive VR assistant application as a

speaker; and extracting, by the NLP engine, at least the text from the first media message, wherein the text is processed to analyze at least one of the first context and the second context and wherein the extracted text is transferred to an asset loader to load content in the one or more VR environments."

There are additional claims. Please visit full patent to read further.

For more information, see this patent: Johri, Vansh. Context based adaptive virtual reality (VR) assistant in VR environments. U.S. Patent Number 11113080, filed March 29, 2017, and published online on September 7, 2021. Patent URL:

http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=11113080.PN.&OS=PN/11113080RS=PN/11113080

Keywords for this news article include: Business, Machine Learning, Emerging Technologies, Natural Language Processing, Tata Consultancy Services Limited.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOUIND0020210928eh9s0000t

TCS John Huxley Europe Limited; Patent Application Titled "Gaming System" Published Online (USPTO 20210117160)

3,334 words 6 May 2021 Politics & Government Week POLGOV 5172 English

© Copyright 2021 Politics & Government Week via VerticalNews.com

2021 MAY 13 (VerticalNews) -- By a News Reporter-Staff News Editor at Politics & Government Week -- According to news reporting originating from Washington, D.C., by VerticalNews journalists, a patent application by the inventor Saunders, Andrew Michael (London, GB), filed on June 18, 2019, was made available online on April 22, 2021.

The assignee for this patent application is TCS John Huxley Europe Limited (Stoke-On-Trent, United Kingdom).

Reporters obtained the following quote from the background information supplied by the inventors: "Public policy in many regions around the world limits the number of bets permitted in a given time period, particularly in relation to live events and physical gambling opportunities such as roulette wheels.

"Currently available sources of gambling opportunities include gaming systems within a casino environment, such as roulette for example, wherein some form of physical random number generator is used to define at least one win condition. Such games generally include an operator, or a dealer, the role of whom is often to control the pace of a particular game and to maximise the number of betting opportunities provided to a player in a given time period according to local gambling regulations. This provides increased opportunity for player reward and therefore improved player enjoyment and enhanced overall player experience.

"While it is possible to train said operators or dealers to reduce the length of time spent, for instance dealing or shuffling, during a particular game, and therefore increase the number of gambling opportunities per given time period, these human-driven systems can be inherently incapable of maximising the number of gambling opportunities per given time period, and therefore player excitement, to the full potential.

"Gaming systems in a casino environment increasingly include some form of automated feature, often for the purpose of improved efficiency and removal of human error. These automations may be in the sorting of casino chips and in data tracking, among others. Such automations and data tracking methods can be used to identify bottlenecks in a gaming system and may be used to train and optimise said systems to reduce the time spent during the length of a betting opportunity. However, these systems still do not completely maximise the number of betting opportunities per given time period.

"It is therefore desirable to maximise opportunity for reward and enjoyment for a player by maximising the number of possible betting opportunities in a given time period, customised according to the specific gambling regulations of the region. Preferably the maximum number of betting opportunities per hour can be adjusted in order to accommodate any changes that are subsequently made to gambling regulations."

In addition to obtaining background information on this patent application, VerticalNews editors also obtained the inventor's summary information for this patent application: "In accordance with a first aspect of the present invention, there is provided a gaming system comprising, at least two physical random number generators each having an operative period comprising an available period and an unavailable period; a selecting member arranged to select one physical random number generator during an available period of said physical random number generator during an unavailable period of said physical random number generator; wherein the gaming system further comprises a betting member arranged to accept betting information from a user for the selected physical random number generator; wherein one physical random number generator is selected at any one time.

"In the context of the present invention, the term 'gaming' will be understood by the skilled addressee to mean 'gambling'.

"The random number generators of the present invention are physical, with the random number generation constituting a live event during a perceivable operative period--as opposed to being software-derived, wherein the generation of a random number may be considered to be instantaneous. The operative period of each random number generator, which may optionally be a roulette wheel, has an available period and an unavailable period. Preferably the available period comprises a period optimised for accepting betting

Page 6 of 11 © 2022 Factiva, Inc. All rights reserved.

information for said physical random number generators. The selecting member is arranged to select a physical random number generator during its available period, providing a selected physical random number generator, preferably on which bets can be placed by a user by submitting betting information to the betting member. There can be only one selected physical random number generator at any one time and as such bets from a single individual can only be placed on a single physical random number generator at any one time. Following the available period and during the unavailable period of said selected physical random number generator, the selecting member is arranged to deselect said selected physical random number generator and is preferably able to select a new physical random number generator during the available period of said new physical random number generator.

"Preferably a random number is generated by said physical random number generators during said available period, wherein said random number defines a win condition. More preferably the available period comprises an exit period during which any of said betting information accepted from a user matching said win condition results in a win event. Still more preferably said win event comprises the transfer of a prize to said user. Most preferably said prize comprises currency.

"In order to minimise the likelihood of concurrent bets on multiple physical random number generators for a single user, the available period of physical random number generators of the present invention preferably comprises the generation of a random number and the defining of a win condition. Betting information from a user matching said win condition preferably results in the transfer of a prize in the form of currency to said user during said available period and as such said selected physical random number generator is preferably not deselected until an exit period has completed. Therefore, preferably a new selected physical random number generator in an available period on which betting information might be submitted is not selected by the selecting member until all current betting on the selected physical random number generator has ceased. This preferably provides a system wherein no concurrent bets on multiple physical random number generators by a single user are possible.

"In most countries around the world, depending upon the type of game being played, gambling regulations restrict the number of bets per hour, and in many cases prohibit concurrent bets on multiple active tables. As such, live events on which betting can take place, such as, for example, the spin of a roulette wheel, are only permitted to occur a specific maximum number of times in one hour. Using the present invention, the minimisation of time between the availability of betting on live events occurring enables the user to minimise time spent waiting for the same source of betting opportunities to once again be made available for betting, or time spent moving to another source of betting opportunities and waiting for said source to be made available for betting. As such the user is allowed to minimise the waiting time, and maximise the number of betting opportunities in a time period without contravening local gambling regulations.

"Preferably the unavailable period immediately follows the available period. More preferably the selecting member is arranged to deselect said selected physical random number at the start of the unavailable period. Most preferably the selecting member is arranged to select one new physical random number generator during an available period of said new physical random number generator immediately following the deselecting of the previous selected random number generator.

"The immediate deselecting of a selected physical random number generator following its available period, and the selecting of a new physical random number generator during its available period preferably minimises the time interval between betting opportunities for a user. This preferably allows a user to maximise their number of betting opportunities in a given time period without permitting concurrent bets on multiple physical random number generators for a single user.

"Preferably the gaming system further comprises a display member, the display member being arranged to display an image of at least one of said physical random number generators. More preferably the display member is arranged to display an image of all of said physical random number generators. Still more preferably the display member is further arranged to indicate the selected physical random number generator to a user. Still more preferably the display member is arranged to display an image of only the selected physical random number generator. Still more preferably said image is provided by a camera. Most preferably said image comprises real-time video.

"Preferably the betting member comprises one selected from the range: a gaming surface; a gaming table; a betting slip; a manual input device; a touch screen.

"Preferably the betting member is arranged to provide a view of and access to all of the available betting options for said selected physical random number generator to a user.

"Preferably at least one of the physical random number generators is located remotely to the betting member. Still more preferably all of the physical random number generators are located remotely to the betting member.

"In a preferable embodiment of the present invention, the number of physical random number generators is greater than two. In further preferable embodiments, said physical random number generators may be at varying proximities to the betting member. In accordance with preferable embodiments, the number of physical random number generators can be adjusted, to add or remove physical random number generators as they are installed or decommissioned. Preferably the betting member is remote to the physical random number generators.

"Preferably at least one of the physical random number generators, the selecting member, the betting member are in digital communication with a server.

"Preferably the gaming system permits the accepting of betting information from a user for only one physical random number generator at any one time.

"The operative period, the available period and the unavailable period preferably all have a start time and an end time defining a length.

"Preferably the start time of any of: said operative period; said available period; said unavailable period; may be adjusted. Preferably the length of any of: said operative period; said available period; said unavailable period; may be adjusted.

"In order to increase or decrease the number of betting opportunities in a given time period, the start time and/or length of one of the operative period, the available period or the unavailable period of one of the physical random number generators may preferably be adjusted. The preferable adjustment feature might be used for example to adhere to local gambling regulations or to modify the present system in order to accommodate changing local gambling regulations.

"Preferably the gaming system comprises a plurality of betting members. Preferably each betting member accommodates at least one user. In some embodiments, a betting member may preferably accommodate a plurality of users.

"Preferably the at least two random number generators are selected from the range: roulette wheel; dice shaker; dice spinner; number wheel; money wheel; sic bo; cards; electronic card shoe; manual card shoe; bingo machine; lottery machine. Still more preferably at least one of said random number generators are automated. A number of different random number generators are currently available, such as those hereinbefore described. The system of the present invention is preferably forward-compatible with future iterations of random number generators where these may be applicable to the present system.

"Preferably the betting member comprises a memory arranged to store previously accepted betting information, and further provides a user with an opportunity to submit said previously accepted betting information.

"Preferably, the betting member may be used to access previous betting information from the memory unit, preferably for the purpose of re-inputting the previous betting information during a subsequent betting period and preferably further minimise time spent re-entering favoured betting information. In order to enable a user to maximise their number of betting opportunities in a given time period, it would be preferable for a user to duplicate previously submitted betting information in order to avoid the time required to re-enter the same information time and time again. A more preferable feature would be to allow a user to duplicate previously made bets across subsequent selected physical random number generators, when said physical random number generators become available for betting, and so that no concurrent betting takes place. In duplicating bets across different physical random number generators, the user may be allowed to further minimise time spent re-entering the same betting information as has already been entered.

"In accordance with a second aspect of the present invention, a method of maximising the number of betting opportunities in a time period is provided, the method comprising the steps of: a) providing at least two physical random number generators arranged to generate a random number to define a win condition, the physical random number generators having an operative period comprising an available period and an unavailable period; b) providing a betting member arranged to accept betting information from a user; c) selecting one physical random number generator from said at least two physical random number generators, said selected physical random number generator being in the available period of said physical random number generator; e) deselecting said selected physical random number generator and immediately repeating step c).

"Preferably, the deselecting of the selected physical random number generator step e) occurs immediately following the available period of said selected physical random number generator. More preferably, between step d) and step e), said selected physical random number generator generates a random number defining a win condition. Still more preferably, immediately following the defining of a win condition, betting information

matching the win condition results in a win event. Still more preferably, the win event comprises the transfer of a prize to a user. Most preferably said prize comprises currency."

The claims supplied by the inventors are:

- "1. A gaming system comprising: at least two physical random number generators each having an operative period comprising an available period and an unavailable period; a selecting member arranged to select one of the at least two physical random number generators during the available period of the physical random number generator and further arranged to deselect the physical random number generator during the unavailable period of the physical random number generator; wherein the gaming system further comprises a betting member arranged to accept betting information from a user for the selected physical random number generator, and wherein one of the at least two physical random number generators is selected at any one time.
- "2. The gaming system of claim 1, wherein a random number is generated by the physical random number generators during the respective available period, and wherein the random number defines a win condition.
- "3. The gaming system of claim 2, wherein the available period comprises an exit period during which any of the betting information accepted from a user matching the win condition results in a win event.
- "4. The gaming system of claim 3, wherein the win event comprises a transfer of a prize to the user.
- "5. The gaming system of claim 1, wherein the unavailable period immediately follows the available period.
- "6. The gaming system of claim 5, wherein the selecting member is arranged to deselect the selected physical random number generator at a start of the unavailable period.
- "7. The gaming system of claim 6, wherein the selecting member is arranged to select one new physical random number generator of the at least two physical random number generators during an available period of the new physical random number generator immediately following the deselecting of a previously selected physical random number generator.
- "8. The gaming system of claim 1, further comprising a display member arranged to display an image of at least one of the physical random number generators.
- "9. The gaming system of claim 8, wherein the display member is arranged to display an image of all of the physical random number generators.
- "10. The gaming system of claim 8, wherein the display member is further arranged to indicate the selected physical random number generator to a user.
- "11. The gaming system of claim 10, wherein the display member is arranged to display an image of the selected physical random number generator without displaying an image of the deselected physical random number generator.
- "12. The gaming system of claim 8, wherein the image is provided by a camera.
- "13. The gaming system of claim 1, wherein the betting member comprises a gaming surface, a gaming table, a manual input device, or a touch screen.
- "14. The gaming system of claim 1, wherein the betting member is arranged to provide a view of and access to all of a plurality of available betting options for the selected physical random number generator to a user.
- "15. The gaming system of claim 1, wherein at least one of the physical random number generators is located remotely to the betting member.
- "16. The gaming system of claim 1, wherein the gaming system accepts the betting information from a user for only the selected physical random number generator at during the available period of the selected physical random number generator.
- "17. The gaming system of claim 1, wherein each physical random number generator comprises a roulette wheel; a dice shaker; a dice spinner; a number wheel; a money wheel; sic bo; cards; an electronic card shoe; a manual card shoe; a bingo machine; or a lottery machine.
- "18. The gaming system of claim 17, wherein at least one of the physical random number generators is automated.

- "19. The gaming system of claim 1, wherein the betting member comprises a memory arranged to store previously accepted betting information, and further prompts a user to submit the previously accepted betting information.
- "20. A method of increasing a number of betting opportunities in a time period, the method comprising: providing at least two physical random number generators each arranged to generate a respective random number to define a win condition, the physical random number generators having an operative period comprising an available period and an unavailable period; providing a betting member arranged to accept betting information from a user; selecting one physical random number generator from the at least two physical random number generators, the selected physical random number generator being in the available period of the physical random number generator; deselecting the selected physical random number generators and selecting another physical random number generator from the at least two random number generators, the selected physical random number generator being in the available period of the physical random number generators when selected.
- "21. The method of claim 20, wherein deselecting the selected physical random number generator comprises deselecting the selected physical random number generator following the available period of the selected physical random number generator.
- "22. The method of claim 20, further comprising generating, by the selected physical random number generator, a random number defining a win condition.
- "23. The method of claim 22, further comprising matching the betting information to the win condition resulting in a win event.
- "24. The method of claim 23, wherein the win event comprises a transfer of a prize to a user."

For more information, see this patent application: Saunders, Andrew Michael. Gaming System. Filed June 18, 2019 and posted April 22, 2021. Patent URL:

http://appft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.html&r=1&f=G& I=50&s1=%2220210117160%22.PGNR.&OS=DN/20210117160&RS=DN/20210117160

Keywords for this news article include: Business, TCS John Huxley Europe Limited.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document POLGOV0020210506eh56000fy

Search Summary

Text	(hd=tcs or hd=tata consultancy) and wc>100 and hd=(virtual real estate or virtual properties or digital real esate or digital real assets or digital properties or metaverse properties or digital plots or virtual plots or virtual land or virtual reality platform or manufacturing simulation or virtual simulation or digital twins or virtual manufacturing or immersive learning or mixed-reality learning or metaverse learning or VR learning or AR learning or VR training or virtual recruitment or 3d training or training metaverse or virtual retail or virtual shopping or virtual clienteling or omnichannel shopping or humanising digital retail or immersive virtual stores or 3d virtual store or metaverse shopping or virtual clothing or virtual goods or gaming or digital avatar or digital character or virtual game or 3D avatars or virtual reality or interoperable VR space or digital financial ecosystems or metaverse wallets or robo advisory or virtual financial data or digital bank branches or digital touchpoint or blockchain wallets or digital wallets or digital wedding or virtual wedding or virtual event or virtual concert or virtual theme park or virtual classroom or virtual learning or virtual school or immersive learning or metaverse)
Date	In the last year
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries

Region	All Regions
Language	English
Results Found	3
Timestamp	21 February 2022 18:57