www.virtualrehab.co

Virtual Rehab

Psychological

Rehabilitation

Face and defeat your addiction fears today using Virtual Rehab's real-life simulations. The solution is in your hands and you can do it !

VIRTUAL REHAB

WHITE PAPER

August 2018

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EXECUTIVE SUMMARY

Virtual Rehab's evidence-based solution leverages the advancements in virtual reality, artificial intelligence, and blockchain technologies for pain management, prevention of substance use disorders, and rehabilitation of repeat offenders.

At Virtual Rehab, our innovative and our powerful solution (supported by existing research*) is intended to rehabilitate rather than just punish. Although the scope of our existing solution includes pain management, psychological, and correctional rehabilitation, the Virtual Rehab team reserves the right to explore new industries to further expand our global operations.

The disclosed technology includes services in a telemedicine context and can extend to individual users of the Virtual Rehab solution to serve the B2C market, in addition to hospitals, rehab centers, correctional facilities, correctional officers, inmates, etc. to serve the B2B market. Furthermore, using blockchain technology, we can now reach out to those vulnerable populations directly, to offer help and reward, by empowering them with the use of Virtual Rehab's ERC-20 VRH Token within our network.

Virtual Reality
A virtual simulation of the real world using cognitive behavior and exposure therapy to trigger and to cope with temptations

Artificial Intelligence
A unique expert system to identify areas of risk, to make treatment recommendations, and to predict post-therapy behavior

Blockchain
A secure network to ensure privacy and decentralization of all data and all information relevant to vulnerable populations

VRH Token
An ERC-20 utility token that empowers users to purchase services and to be rewarded for seeking help through Virtual Rehab's online portal

Virtual Rehab believes that putting a kid in the corner does not teach them how to be a better person but rather teaches them not to get caught. Therefore, we are in it for the social good and to help address the needs of the most vulnerable populations out there.

*** Kindly refer to the references section at the end of the white paper for a couple of samples of the conducted research.

BACKGROUND

Every person in life typically seeks a second chance. Inmates and substance addicts are no exception. In fact, they are the ones that are in most dire need for help, support, and development to become improved citizens upon their release from prisons or rehabilitation ("rehab") centers.

This is realized through correctional and rehabilitation programs that will prepare them to lead their future lives in a positive manner to avoid the possibility of repeated offenses and substance addictions.

According to the International Centre for Prison Studies, the global prison population total is currently set at 10.5 million. Prison budgets are also currently set at roughly $35.2 billion worldwide. From a rehabilitation perspective, there are approximately 255 million suffering from substance abuse and roughly $100 billion are being spent on addiction treatment worldwide. These numbers are enormous and costly to governments, tax payers, and society. Thus, there is a need for an effective rehabilitation technique that could increase persons treated and reduce costs.

Current techniques for rehabilitating persons are burdensome and typically ineffective. For example, rehab programs require counseling, medication, and/or constant monitoring that is cost-prohibitive. As such, many persons who could be successfully rehabilitated are never treated because of a lack of resources. Moreover, existing techniques for rehabilitating a person fail to provide any insights into whether those techniques are effective in real-time while the persons are being rehabilitated. Instead, a rehabilitation treatment is only deemed successful if a patient can stop being treated without relapsing. Accordingly, a need exists for a personal and a cost-effective rehabilitation system that can also be used to assess and treat persons in real-time.tt

SUMMARY

The disclosed embodiments include at least one method performed by a server computer system of a simulated reality platform for rehabilitating users of the platform by promoting real-world behaviors of users engaged with simulations. The method can include initiating a session for a simulated real-world experience including a real-world scene selected from a plurality of real-world scenes. The simulated real-world experience can promote a real-world behavior of a user engaged with the simulated real-world experience. The method can include receiving inputs obtained during the simulated real-world experience, where the inputs can include user responses to prompts, real-world positional data of the user, and/or real-world physiological data of the user. The method can include causing a next real-world scene to render in the simulated real-world experience, where the next real-world scene is selected based on at least some of the received inputs. The method can further include evaluating the user based on the received inputs processed with an expert system to predict the user's real-world behavior and identify a treatment. Responsive to determining that the user demonstrated corrected or improved behavior based on the evaluation of the user, the server computer system can award the user an opportunity to advance to another scene or level of the session and/or award redeemable points to the

user. In some embodiments, the server computer system can output data indicative of the evaluation, the predicted user's real-world behavior, and/or a recommendation based on the treatment.

Embodiments include a server computer system of a simulated reality platform for rehabilitating users of the platform by promoting real-world behaviors of users engaged with simulations. The server computer system includes processor(s) and memory(ies) including instructions executable by the processors causing the server computer system to perform certain actions. Those actions can include initiating an augmented reality or virtual reality simulation of a real-world scene selected from a number of scenes, where the selected scene can promote a real-world behavior of a user engaged with the simulation. The server computer system can be further caused to receive inputs obtained during the simulation, where the received inputs include any combination of user responses to prompts, real-world positional data of the user, and/or real-world physiological data. The server computer system can cause a next scene to render in the selected scene, where the next scene is selected based on at least some of the plurality of inputs. The server computer system can also evaluate the user based on the received inputs processed with an expert system to predict the user's real-world behavior and identify a corresponding treatment, output data indicative of the evaluation, the predicted user's real-world behavior, and/or the treatment, and execute machine learning based on the received inputs to improve the expert system for simulations that promote real-world behaviors and identifying treatments or predicting real-world behaviors.

Embodiments include a computer system including processor(s) and memor(ies) including instructions executable by the processors causing the computer system to perform certain actions. These actions can include loading an augmented reality or virtual reality simulation of a real-world scene selected from many real-world scenes, where the selected scene can promote a real-world behavior of a user engaged with the simulation. The computer system can be caused to receive inputs obtained during the simulation, where the received inputs include user responses to prompts, real-world positional data of the user, and/or real-world physiological data.
The computer system can then send the received inputs over a computer network to a server computer system that can enable selection of a next scene by a third-party provider of the simulation to promote the user's real-world behavior, evaluate the user with an expert system to predict the user's real-world behavior and identify a corresponding treatment, output data indicative of the evaluation, the predicted user's real-world behavior, or the treatment, execute machine learning to improve the expert system to promote real-world behaviors, predict real-world behaviors of any users or identify treatments, and load the next scene in the selected scene of the simulation to promote the real-world behavior of the user.

Embodiments also include a simulated reality platform for rehabilitating users of the platform by promoting real-world behaviors of users engaged with simulations. The platform can include a cloud subsystem that can create and store a library of simulations each including a set of scenes configured to promote real-world behaviors of users engaged with simulations. A client subsystem can administer a simulation provided by the cloud subsystem for a particular user such that the user experiences a course of a subset of a set of scenes. Lastly, a user subsystem includes a head mounted near-to-eye display operable to render the subset of scenes as administered by the client subsystem to promote a real-world behavior of the user engaged in the simulation.

Embodiments include a method performed by a user computer of a simulated reality platform for simulating real-world scenes to promote a real-world behavior of a user immersed in a simulation. The method can include initiating a session for a real-world simulation including a real-world scene selected from many real-world scenes of the real-world simulation, receiving an authentication code to enable the session for the user of the real-world simulation to experience the selected real-world scene, and upon successful authentication of the user based on the authentication code, launching the session to render the real-world simulation including the selected scene for the user as authorized by the authentication code.

Embodiments include a head mounted display (HMD) system including a chassis, and one or more displays mounted to the chassis, to render a scene of a simulated reality for an optical receptor of a user when the user wears the HMD system. The simulation can include a number of scenes that can promote a real-world behavior by the user wearing the HMD system. The HMD can also include a camera mounted to the chassis, to capture movement of the optical receptor responsive to the scenes. The HMD system can also include a network interface that can communicate with a client subsystem configured to administer the simulation.

Embodiments also include a method performed by a client computer administering a simulated reality by a user device to promote a real-world behavior of a user engaged with a simulation. The method includes connecting the client subsystem to a cloud service by calling an application programming interface (API) of the cloud service to grant access to the simulated reality platform such that the client computer administers a session including a simulation of a real-world scene configured to promote a real-world behavior of the user engaged with the simulation, and causing the user computer to render the simulation of the real-world scene under control of the client computer and in accordance with an authorization granted by the cloud service.

Embodiments include a method performed by one or more server computers of a simulated reality platform for administering a simulation to promote a real-world behavior of a user engaged with the simulation. The method can include creating simulations that can promote real-world behaviors by users, where each simulation includes scenes. The method can further include creating a user profile including information indicating an ailment of the user for which the user seeks rehabilitation, identifying one or more simulations including scenes to promote the desired real-world behavior to rehabilitate the user, linking the user profile to the one or more identified simulations, and enabling the simulation capable of rehabilitating the user, the simulation including a course for traversing through a subset of the scenes. Lastly, the method can include adjusting the course to traverse a different subset of the scenes in response to the user failing to demonstrate the desired real-world behavior.

BRIEF DESCRIPTION OF DRAWINGS

One or more embodiments of the Virtual Rehab solution are illustrated by way of example and not limitation in the figures of the accompanying drawings, in which like references indicate similar elements.

FIGURE 1

Figure 1 illustrates a user engaged with components of a simulated reality rehabilitation system.

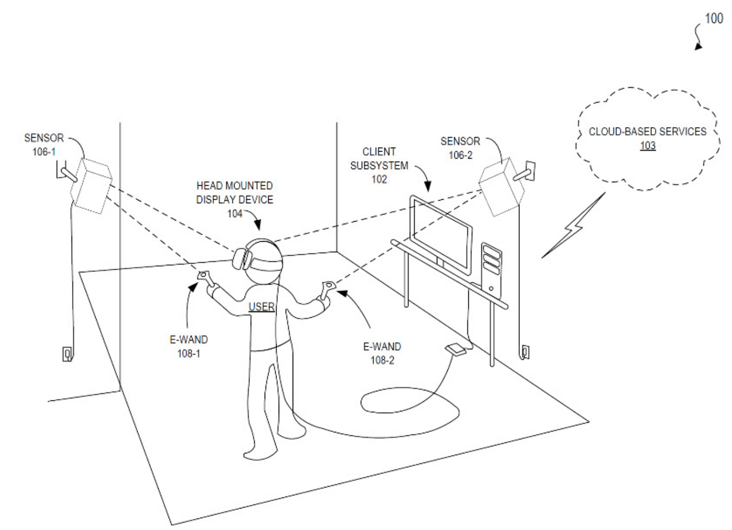


FIG. 1

FIGURE 2

Figure 2 illustrates an example of a scene of a rehabilitation session.

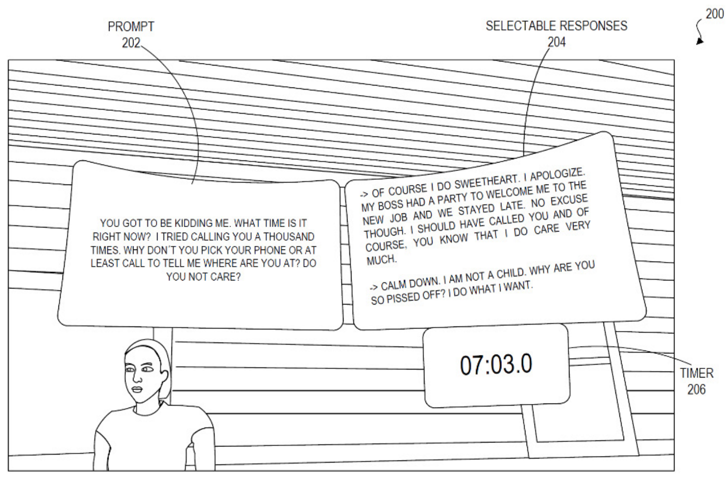


FIG. 2

FIGURE 3

Figure 3 is a block diagram illustrating a cloud stack and a client stack of a simulated reality rehabilitation system collectively operable to administer a session by a near-to-eye display system.

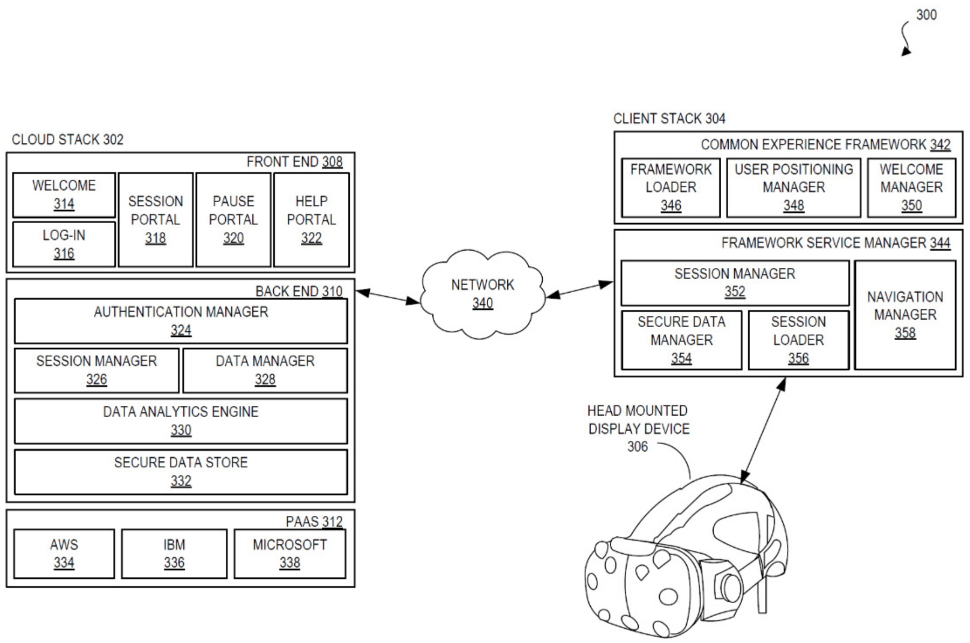


FIG. 3

FIGURE 4

Figure 4 is a block diagram of a stack for managing multiple simulation sessions.

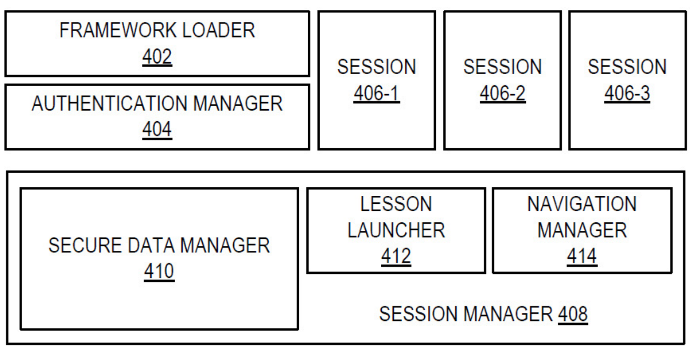


FIG. 4

FIGURE 5

Figure 5 illustrates an experience flow or logical diagram for a rehabilitation session.

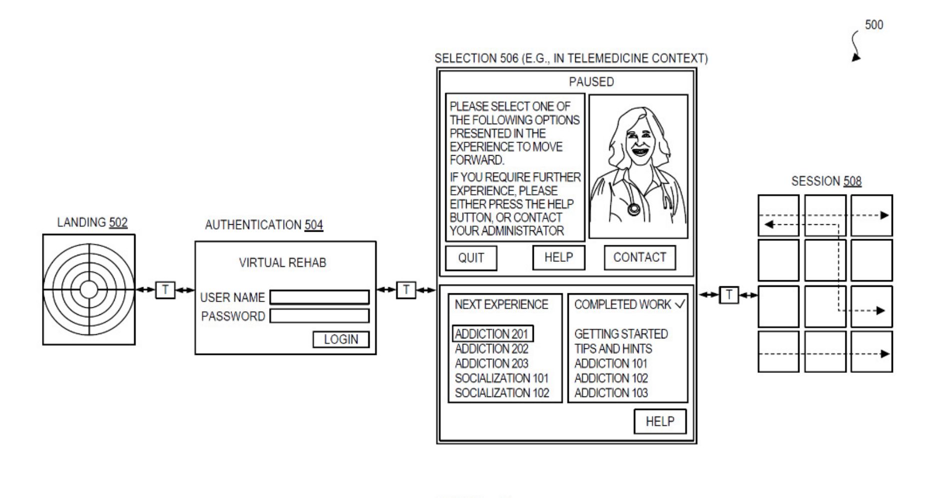


FIG. 5

FIGURE 6

Figure 6 is a block diagram illustrating a simulated reality rehabilitation system and processes performed therewith.

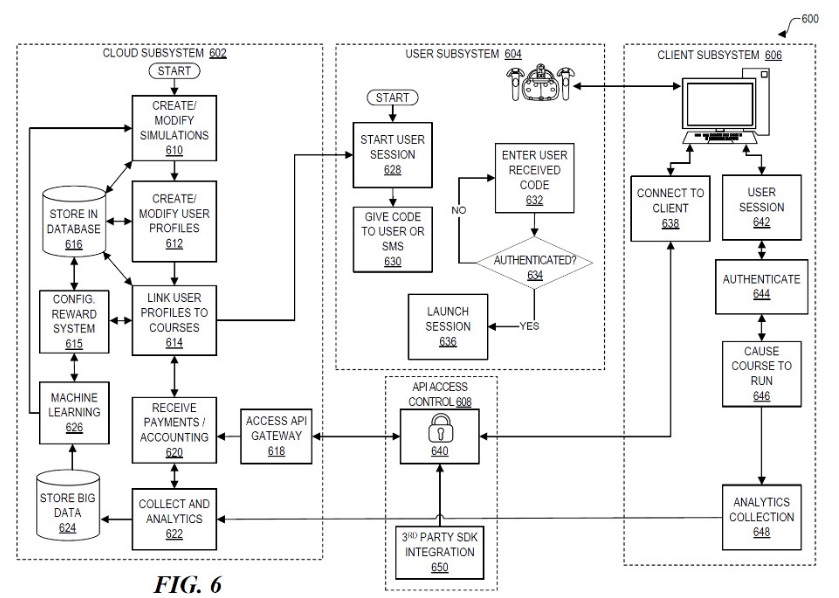


FIG. 6

FIGURE 7

Figure 7 is a flowchart illustrating a process performed by a server computer of the simulated reality rehabilitation platform.

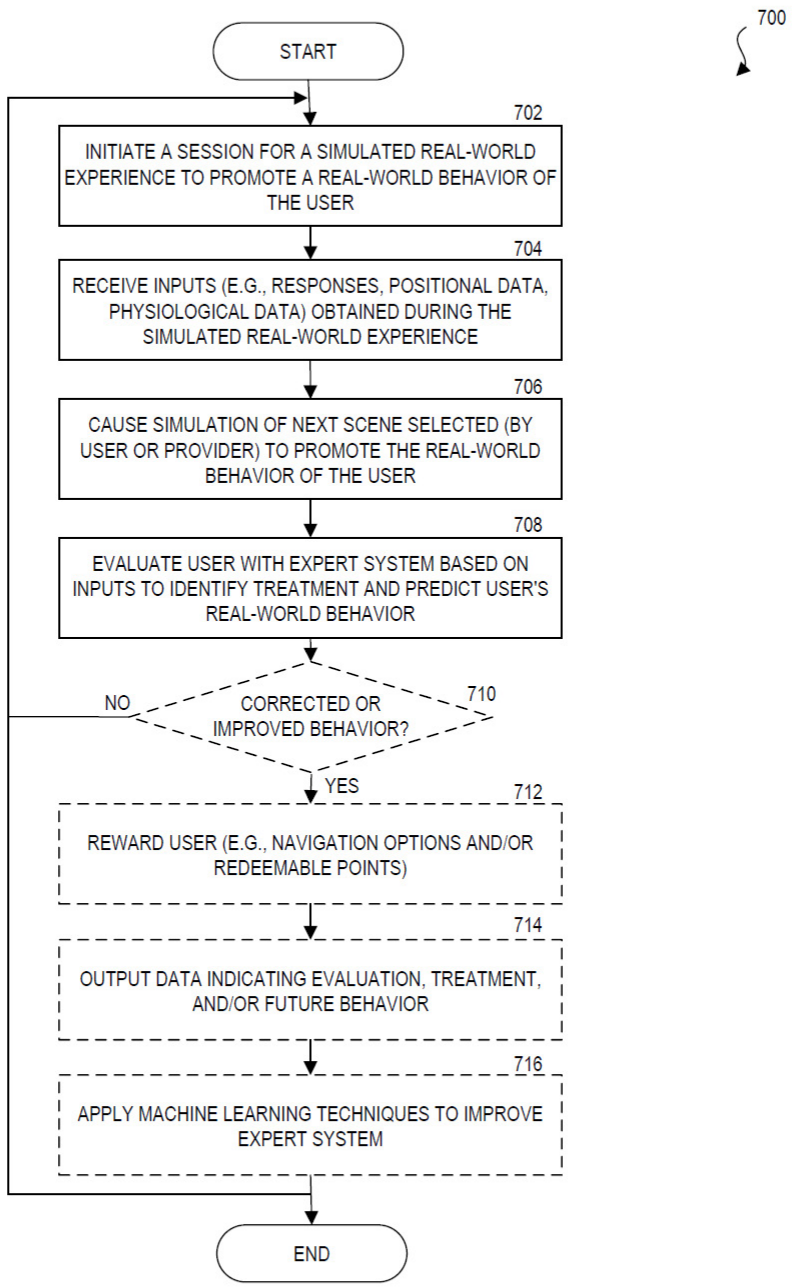


FIG. 7

FIGURE 8

Figure 8 is a block diagram illustrating a computer device configured to implement aspects of the disclosed technology.

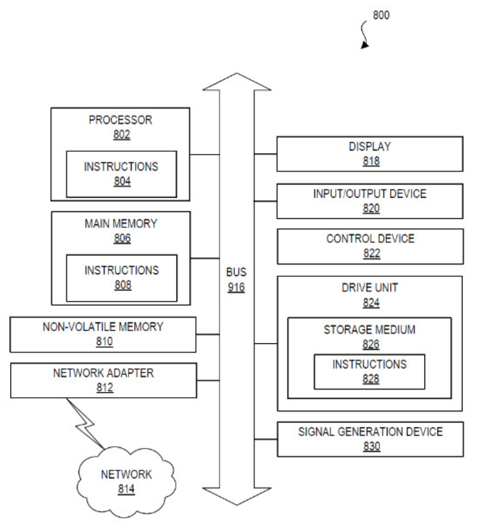


FIG. 8

DETAILED DESCRIPTION

The embodiments set forth below represent the necessary information to enable those skilled in the art to practice the embodiments and illustrate the best mode of practicing the embodiments. Upon reading the following description considering the accompanying figures, those skilled in the art will understand the concepts of the white paper and will recognize applications of these concepts that are not particularly addressed herein. These concepts and applications fall within the scope of the white paper.

The purpose of terminology used here is only for describing embodiments and is not intended to limit the scope of the white paper. Where context permits, words using the singular or plural form may also include the plural or singular form, respectively.

As used herein, unless specifically stated otherwise, terms such as "processing," "computing," "calculating," "determining," "displaying," "generating" or the like, refer to actions and processes of a computer or similar electronic computing device that manipulates and transforms data represented as physical (electronic) quantities within the computer's memory or registers into other data similarly represented as physical quantities within the computer's memory, registers, or other such storage medium, transmission, or display devices.

As used herein, the terms "connected," "coupled," or variants thereof, refer to any connection or coupling, either direct or indirect, between two or more elements. The coupling or connection between the elements can be physical, logical, or a combination thereof.

Virtual Rehab’s technology leverages advancements in virtual and augmented reality technology for prevention of substance use disorders along with rehabilitation of repeat offenders. The disclosed technology is a powerful technique to rehabilitate rather than just punish individuals. The scope of this white paper includes pain management, psychological rehabilitation, and correctional rehabilitation. However, the Virtual Rehab team reserves the right to explore new industries other than those mentioned in this white paper to further expand its global operations accordingly. The disclosed technology includes services in a telemedicine context and can extend to individual users of the Virtual Rehab solution to serve the B2C market, in addition to hospitals, rehab centers, correctional facilities, correctional officers, inmates, etc. to serve the B2B market.

The disclosed technologies include virtual reality platforms for corrections applications. For example, these products create a virtual reality environment to help rehabilitate inmates by exposing them to “scenarios” like the real-world and provides guidance for responding to those scenarios. In other words, users are exposed to real-world scenarios that would trigger users to relapse but are trained in a simulated world to respond appropriately.

The disclosed embodiments further expand on these technologies by similarly including a simulated reality environment that helps rehabilitate inmates (or more broadly anyone that could benefit from rehabilitation). Some embodiments include an expert component that collects data (e.g., from the simulated reality environment, physiological data) and applies machine learning to the data to assess the user, predict future user behavior, and identify suitable treatments. For example, an outcome of this process may be used to determine that a user exposed to a virtual reality environment is not suitable for parole or needs therapy to help succeed in the real-world.

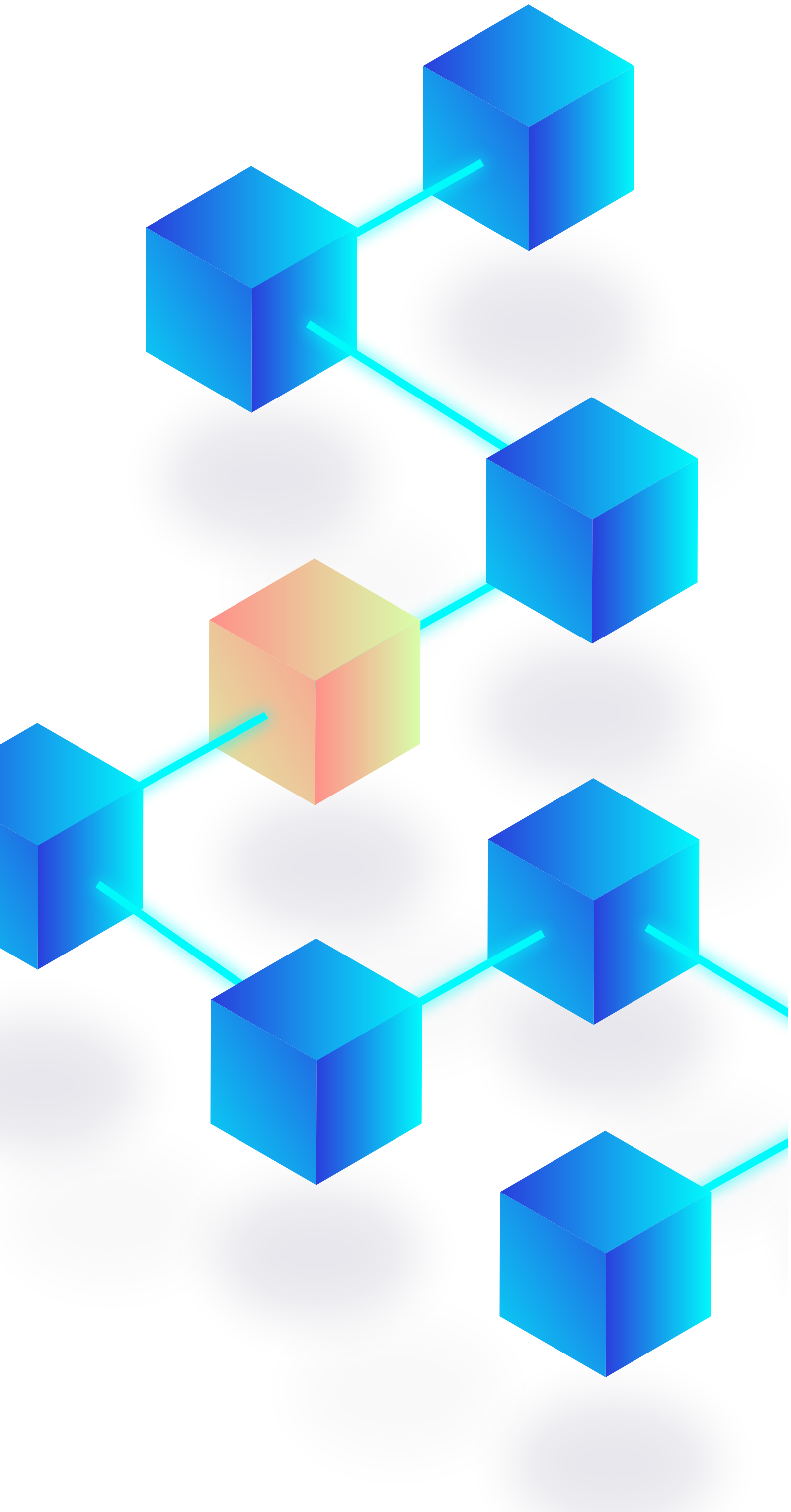
The disclosed technology can reduce recidivism and relapse rates through virtual reality or augmented reality based immersive learning and rehabilitation programs. The immersive technology is a solution that can allow users to

undergo correctional rehabilitation services for sex offenses, family violence, alcoholism, as well as other offenses. The disclosed solution can also assist in treating patients' psychological problems including mental illness, emotional disorders, co-existing disorder, intermittent explosive disorder, and others. The disclosed immersive technology also has a broad range of other applications. Examples include immersive formal education programs that are used to strengthen the proficiency in the English language, business, mathematics, sciences, technology, along with another curriculum. Users can also acquire new vocational training skills such as car mechanic, plumbing, welding, carpentry, along with other professions.

The disclosed technology can be implemented in a telemedicine context. For example, a simulated reality rehabilitation system can include the use of use of telecommunication and information technology to provide rehabilitation services from a distance. This can been used to overcome distance barriers and to improve access to rehabilitation services that are often not consistently available in distant communities.

Figure 1 illustrates a user engaged with components of a simulated reality rehabilitation system (the "system"). The components 100 can include a client computer subsystem 102 that administers a simulation session running on components of a user computer subsystem including a head mounted display (HMD) device 104, motion or position sensors 106, electronic wands108, etc. In some embodiments, some of the components 100 are remotely located from the user. For example, cloud components can provide cloud-based services 103 to administer the simulation session running on the components of the user computer subsystem or provide services or content for the client subsystem 102 to administer simulation sessions. Hence, administration of a simulation session could be on the HMD device 104 or a remote system that receives session progress feedback (e.g., anywhere outside of room where the user is experiencing a simulation).

As shown, the client subsystem 102 includes a desktop computer that can provide content of an simulation session to the components of a user subsystem and process feedback from the user subsystem. As shown, the HMD device 104 is a near-to-eye display system that is worn by a user. For example, the HMD device 104 can have a chassis and various electrical and optical components to enable an immersive experience by the user wearing the HMD device 104. For example, the HMD device 104 can include a display for each of the user's eyes. The displays can render a real-world scene of a simulation for view by the user's eyes when the HMD device 104 is worn by the user. The HMD device 104 may also include a camera mounted to the chassis. The camera may capture movement of the user's pupils for physiological feedback responsive to simulated real-world scenes being rendered. The HMD device 104 may also include a network interface enabling the client



subsystem 102 to communicatively couple the user subsystem to the client subsystem over a wired or wireless connection.

In some embodiments, the HMD device 104 could include features for measuring the user's physiological activity. For example, the HMD device 104 may include components to measure the user's electrical brain activity. As such, the HMD device 104 can also collect physiological data in combination with any direct input by the user. In some embodiments, the physiological data can be used to supplement the user's conscious inputs. In some embodiments, the physiological data could be used to compare against the user's conscious input to detect when the user is attempting to deliberately fool the system. In this way, the system can detect the user's true progress in a rehabilitation program in real-time and adjust a course accordingly.

The HMD device 104 can be used for rendering a virtual immersive environment by displaying images in view of the user's eyes such that the user can only see the images and see nothing in the real world. The HMD device 104 can also render an augmented immersive environment. As such, the user can still see the real world even while the HMD device 104 is worn by the user. To achieve an augmented reality, the user in an augmented reality simulation has a transparent view with digital objects overlaid or superimposed on the user's real-world view.

Examples of other components of the user subsystem include the sensors 106, which could include cameras or motion detectors that are positioned proximate to the user such that the sensors 106 can obtain real-world feedback responsive to interactions with a simulated real-world scene. For example, cameras facing the user can detect the user's movement while the user is engaged in a simulation and provide feedback to the client subsystem 102 administering the simulation. Other components include means for the user to consciously input answers to questions about a rehabilitation course. Examples of input devices include the handheld electronic wands 108 ("e-wands 108"), which can include buttons for the user to input data and/or accelerometers that detect spatial movement. For example, the user can move the wands 108 to provide inputs responsive to a scene administered by the client subsystem 102.

A simulation session can include one or more scenes or scenarios that each simulate a real-world experience. For example, a scene could simulate a person offering the user to buy or use drugs. Another scene could simulate an interaction between the user and the user's spouse or partner after the offer to use or buy drugs. Depending on the interaction between the user and the spouse or partner, the simulation may continue to one of multiple alternative scenes. One scene could simulate an interaction between the user and a police officer after the interaction with the spouse or partner. An alternative scene may be of a follow-up interaction with the person who offered the user drugs.

A rehabilitation program includes any number of real-world scenes and/or levels of scenes that collectively form a simulation. The scenes have content and can be rendered in different orders depending on the interaction with a user. As such, the rehabilitation program can be personalized for different users. The scenes and the order in which they are rendered constitute a course for the rehabilitation program. A user can be assigned a course at the beginning of a rehabilitation program, and the course can change while the program is running in response to how the user is interacting with rendered scenes. For example, a service administering a simulation session could dynamically change to repeat a similar scene if the user failed to successfully show progress in a current scene.

Figure 2 illustrates an example of a real-world scene 200 of a rehabilitation session. The scene 200 depicts a virtual person attempting to interact with the real user of the simulation. The virtual person prompts the user to respond to a question 202. The user is presented with alternatively selectable responses 204 to the question 202. The user can then select one of two of the responses 204. The selected response can be used to determine whether the user is progressing successfully through the rehabilitation program. If the user successfully completed the scene 200, the user may

progress through a remaining course of scenes. On the other hand, if the user failed to successfully complete the scene 200, the course of scenes may be changed to adapt to the user's lack of progress. As shown, the scene 200 also depicts a timer 206 that counts down to encourage the user to promptly respond.

The simulated reality rehabilitation system can evaluate other factors to determine a suitable course for a user engaged in a rehabilitation scene. For example, an HMD can include sensors that measure the physiological responses of a user such as heart rate or eye movement. These measurements are received as inputs and can be used as metadata associated with a scene and/or the user's selected response or other input. For example, the system can detect how a user responds to a scene that depicts a narcotic substance. This metadata can be used to assess whether the user's physiological responses indicate successful rehabilitation or even whether the user's selected responses are inconsistent with the user's physiological activity. In other words, measuring physiological factors allows the system to determine whether the user is attempting to deceive the system.

In some embodiments, the system can include a library of rehabilitation programs. As described further below, the system can include servers that are remotely located from client systems that can access a rehabilitation program administered to a user system (e.g., an HMD). In some examples, a client system can access a rehabilitation program and a course of scenes that is personalized for a user. The client system can administer the program that runs by a user system as administered by the client system.

Further, a local software generation and distribution framework can be used to rapidly scale content. The core essential components and services can support complex user, curriculum, and session elements that can be easily managed by a service provider. As such, a platform of the simulated reality rehabilitation system can standardize interaction elements such as a session landing, sign-in, navigation rules, and the like. A top-level abstraction layer can support customization such as a sequence of sessions or scenes or conditional ordering of sessions or scenes. Services can include authentication, tracking, reports, user services, help services, pause, and resume services, and the like.

For example, Figure 3 is a block diagram illustrating a cloud stack 302 and a client stack 304 of a simulated reality rehabilitation platform 300 ("platform 300") of a simulated reality rehabilitation system collectively operable to administer a simulation session on a head mounted display (HMD) device 306 (or, more generically, a near-to-eye display system).

As shown, the cloud stack 302 includes three primary layers: a front-end layer 308, a back-end layer 310, and a platform as a service (PaaS) layer 312. The front-end layer 308 includes a welcome component 314 and a log-in component 316. The two components 314 and 316 are executed at the beginning of a rehabilitation program administered to orient a user and seek login credentials to control access to rehabilitation programs and user information of the platform 300. The front-end layer 308 also include a session portal 318, pause portal 320, and help portal 322. The session portal 318 is for normal front facing operations of a simulation session whereas the pause portal 320 is for operations while the session is paused. Lastly, the help portal 322 is for helping the user or administrator to address questions related to the platform 300 or simulation.

The back-end layer 310 includes an authentication manager 324 that can authenticate a user and/or an administrator of the platform 300. A session manager 326 can manage access to a session. A data manager 328 can manage user data and/or data about the session such as any feedback from users while engaged in sessions. For example, the data manager 328 can collect feedback data from users including their conscious inputs and physiological data. A data analytics engine 330 can process the collected data to determine the progress of users and to learn how to improve the rehabilitation programs (e.g., sessions, courses, scenes). A secure data store 332 can store sensitive data such as data that identifies users or their ailments. Lastly, the PaaS layer 312 includes cloud computing services that provide the platform 300 for clients to administer the simulation sessions. Examples include AMAZON WEB SERVICES (AWS) 334, or services provided by IBM 336 and/or MICROSOFT 338.

The cloud stack 302 is communicatively connected to the client stack 304 over a network 340 such as the internet. The client stack 304 includes a common experience framework layer 342 and a framework service manager layer 344. The common experience framework layer 342 includes a framework loader 346 to load the framework for a session, a user positioning manager 348 to monitor and track the relative position of the user engaged with the session, and a welcome manager

350 to orient the user at the beginning of the session.

The framework service manager layer 344 includes a session manager 352 to manage the session experienced by a user wearing the HMD device 306. The framework service manager layer 344 also includes a secure data manager 354 to store or anonymize any sensitive data (e.g., identifying users or their ailments), session load manager 356 for loading a session, and a navigation manager 358 for navigating a user through a course of scenes of a rehabilitation program. The platform 300 is merely illustrative to aid the reader in understanding an embodiment. Other embodiments may include fewer or additional layers/components known to persons skilled in the art but omitted for brevity.

For example, Figure 4 is a block diagram of a stack 400 for managing multiple simulation sessions. As shown, the top layer includes a framework loader 402 and authentication manager 404 to load applications and authenticate users and/or administrators of the simulated reality rehabilitation system. Multiple sessions 406 can be executed as part of the framework. A session manager 408 includes a secured data manager 410 for securing any sensitive data, a lesson launcher 412, and a navigation manager 414. As such, the session manager 408 can harmonize the various elements of multiple sessions 406.

Figure 5 illustrates an experience flow or logical diagram 500 for a rehabilitation session. In the landing experience 502, several preliminary actions are taken when a user initially engages with the simulated reality rehabilitation system ("system"). In some embodiments, the landing experience 502 can create a smooth transition into a virtual space with open space and soothing music. For example, it can render written or audible greetings, advertisements, or prompts to nudge a user via cues to the middle of a virtual space by moving in real-world space.

This includes loading several features such as a positioning system. The relative position of a user in a physical room can be determined with several sensors in different locations of the room. The sensors can be part of a positioning system that executes time-of-flight techniques that measure the time that it takes for a signal to travel to an object and return to cameras. The measurements can be used to determine the relative distance from the sensors. Further, several distances determined for several sensors can be used to triangulate the position of the user. In some instances, the landing experience can also include a branding feature to display a brand of the company administering the rehabilitation program.

In some embodiments, the user can automatically transition (denoted with a "T" in Figure 5) to an authentication experience 504 once the user is in the middle of the landing room. The authentication experience 504 may present a user with a log-in screen. Upon successful login, is check can be performed to see if the user has run the tutorial. If not, the user can be offered to view the tutorial. If the user fails to enter the correct password after a certain number of times, the system may automatically exit, and the facilitator of the session may be notified of the failed attempt to long in.
The authentication experience 504 includes features to secure access to a rehabilitation program and sensitive user data such as data identifying users or their ailments. In some embodiments, the authentication experience 504 can prompt a user for a user name and password that is used to authenticate the user. The authentication experience 504 may include a "welcome room" including tutorials or features to orient the user about how to engage with a rehabilitation program. For example, a user orientation can explain the various controls used to input responses or give a guided tour through a program, course, or scenes. In this way, the user can prepare to effectively utilize a rehabilitation program.

Once authenticated, the user can transition to a selection experience 506 to engage in a simulation session. For example, after a successful login, the user may be asked to click a virtual transition control. Once the transition control is clicked, the user transitions to a selection room of the selection experience 506. The selection experience 506 can present an overview of a session including a course of scenes for the user to experience. The overview can include a description of options including selectable scenes, quit, help, and contact controls. In some embodiments, selecting a contact or help control will open a chat or video conference with an administrator or professional. As shown, the selection experience 506 allows the user to select scenes to experience and presents a tracking of completed work of a rehabilitation program. In some embodiments, the selection portal can also include options for reporting results. In some embodiments, the selection experience 506 can be presented to a user to give that user control over his or her own experience.

In some embodiments, the disclosed technology can be implemented in a telemedicine context. For example, a simulated reality rehabilitation system can include the use of telecommunication and information technology to provide rehabilitation services remotely. For example, a scene selection portal can be presented to an administrator or professional rather than the user. Hence, the administrator can select scenes for the user and monitor the user's progress. In some embodiments, the selection portal is presented at the beginning before a session commences and/or when a session is paused. This enables changing a course of scenes at any point during a session.

The user can then transition to a simulation of a session experience 508. Each block represents a scene including simulated real-world content. The scenes can be arranged as layers and could be ordered to achieve certain rehabilitation goals. For example, each row could represent an ordered set of scenes of an experience including different content meant to progress a user through a rehabilitation exercise. Further, each column could represent scenes with similar objectives but including different content.

As shown, each broken arrow depicts examples of courses that a user can traverse through several scenes in a session. Three broken arrows are illustrated as three paths through different scenes. The uppermost broken arrow represents a course that traverses through three scenes in a single direction. The lowermost course traverses through three different scenes in the same direction. The uppermost and lowermost courses could represent similar rehabilitation exercises that use different content. The remaining course traverses through five scenes in different directions. As such, a user can traverse through similar scenes that use different content or repeat scenes if the user fails to succeed in a scene.

Hence, the system can use a highly structured and formalized navigation paradigm. By highly structuring the navigation through scenes, the system is scalable to engage multiple users experiencing multiple sessions. In other words, high scalability is based on formalization of common elements of that are common to all experiences. For example, the navigation paradigm can include designs for experiences around a “room centered” model (e.g., a walk around experience). The navigation paradigm can use navigation cues to reduce confusion and exploration outside of an intended experience. The navigation paradigm may identify generic feedback prompts such as text, voice, haptic feedback, sounds, etc. In some embodiments, the navigation paradigm can define all transitions from room-to-room in a simple consistent manner. Thus, the navigation paradigm can include a navigation map builder that controls session flows.

Figure 6 is a block diagram illustrating a simulated reality rehabilitation System 600 (“system 600) and processes executed therewith. As shown, the system 600 includes a cloud subsystem 602, a user subsystem 604, and a client subsystem 606. As shown, the system 600 also includes an application programming interface (API) access control component 608 that secures communications between subsystems of the system 600.

The system 600 can collectively form a simulated reality platform for rehabilitating users of the platform by promoting real-world behaviors of users engaged in simulations. The cloud subsystem 602 can create and store a library of simulations each including one or more scenes that promote real-world behaviors of users engaged with simulations. The client subsystem 606 can administer a simulation provided by the cloud subsystem 602 for a particular user such that the user experiences a course of at least some scenes. The user subsystem 604 can include a head mounted near-to-eye display that can render administered by the client subsystem 606 to promote a real-world behavior of a user engaged in the simulation.

The networks interconnecting the system 600 may include any combination of private, public, wired, or wireless portions. The data communicated over the networks may be encrypted or unencrypted at various locations or along different portions of the networks. Each component of the system 600 may include combinations of hardware and/or software to process data, perform functions, communicate over the networks, and the like. For example, a component of the system 600 may include a processor, memory or storage, a network transceiver, a display, an operating system, and application software (e.g., for providing a user interface), and the like. Other components, hardware, and/or software included in the system 600 that are well known to persons skilled in the art are not shown or discussed herein for brevity.

The system 600 can include different computing devices. For example, the client subsystem 606 may include a server or other devices to interact with the system 600 or serve other devices the system 600. Examples of these devices include smart phones (e.g., APPLE IPHONE, SAMSUNG GALAXY, NOKIA LUMINA), tablet computers (e.g., APPLE IPAD, SAMSUNG NOTE, AMAZON FIRE, MICROSOFT SURFACE), computers (e.g., APPLE MACBOOK, LENOVO 440), and any other device that can couple to the system 600.

The cloud subsystem 602 can execute processes for rehabilitating users of the system 600. For example, one or more servers can facilitate creating several simulations to promote real-world behaviors of users engaged in the simulations. For example, in block 610, the cloud subsystem 602 can create or modify several simulations that can include a combination of ordered or unordered real-world scenes. This may include a number of courses traversing the scenes that can adapt as needed to rehabilitate users. In some embodiments, the arrangement of scenes and the courses traversing the scenes can be

stored as a navigation map for use in real-time during the execution of a simulation to dynamically adjust users' experiences to optimize the effect of promoting desired real-world behaviors of users.

In block 612, the cloud subsystem 602 can create or modify several user profiles. A user profile can include data that identifies a user, health-related information, access rights granted to that user, as well as ailments (e.g., an addiction) for which the user is seeking rehabilitation. As part of the rehabilitation, the cloud subsystem 602 can identify simulations that would promote desired real-world behaviors to rehabilitate the user.

In block 614, the cloud subsystem 602 can formulate a navigation map for the user to undergo a rehabilitation treatment by experiencing a simulation of scenes and store the navigation map in the user profile. Thus, a navigation map can link a user to one or more simulations to rehabilitate the user, and that linkage can be stored in a database.

In some embodiments, the cloud subsystem 602 includes a reward system. For example, in block 615, a reward system is configured to reward a user for correcting or improving his or her behavior to achieve a desired behavior. A user can be rewarded in response to demonstrating a corrected or improved behavior. The system 600 may decide between different rewards responsive to the user's corrected or improved behavior. Examples of rewards include navigation options and/or redeemable points. For example, a user may be allowed to advance to a next scene or level, move between scenes or levels, or skip scenes or levels of a rehabilitation program. In some embodiments, the user is awarded redeemable points for passing a scene or level. The points may be redeemed for access to real-world items such as being granted access to a library or computing resources for a period. The data associated with the reward system may be stored in the database. For example, the rewards data may be stored with the user's profile.

In some embodiments, the cloud subsystem 602 can receive payments to access rehabilitation services. For example, the cloud subsystem 602 may provide rehabilitation services that can be purchased per session, course, or the like. For example, in block 618, the client subsystem 606 can access an API gateway by making a payment as in block 620 for a service from the cloud subsystem 602. Thus, the cloud subsystem 602 can enable a simulation capable of rehabilitating the user, where the simulation includes a course for traversing through a subset of scenes.

The cloud subsystem 602 includes feedback loops to adjust a course in real-time and adjust the simulations, courses, and scenes based on machine learning. For example, the cloud subsystem 602

can adjust a course to traverse a different subset of scenes in response to a user failing to demonstrate the desired real-world behavior.

In block 622, the cloud subsystem can collect feedback data from one or more client subsystems of users engaged in various simulations as part of rehabilitation treatments. The collected data can be analyzed to determine the effectiveness of the simulations to rehabilitate users.

In block 624, the raw collected data and/or the results of any analysis of that data can be stored for subsequent use in a machine learning process of block 626. The results of the machine learning process of block 626 can be used to update the simulations subsequently used to rehabilitate users. The user subsystem 604 of a simulated reality platform can include an HMD device having one or more displays mounted to a chassis of the HMD. The displays can render scenes of a simulated reality for the user's eyes when the user is wearing the HMD device. The simulation can include scenes configured to promote a real-world behavior by the user wearing the HMD device. The HMD device can include cameras mounted to its chassis. The cameras can capture movement of the user's eyes as feedback to the simulated scenes. The HMD device can also include a network interface to communicate with a client subsystem and/or the cloud subsystem 602 over one or more networks.

In some embodiments, the HMD device can

create an augmented reality experience by rendering a scene on the displays to overlay a view of a real-world environment on the user's eyes. In some embodiments, a scene is rendered on the displays to create a virtual reality view by the user's eyes. The user subsystem 604 may include other computing devices used for a rehabilitation simulation. For example, the user subsystem 604 may include sensors that can detect the user's position or movement while the user is engaged in a simulation and provide feedback to the client subsystem 606 administering the simulation for that user. Examples of other computing devices include handheld electronic wands that can receive input from a user engaged in a simulation based on the spatial movements of the electronic wands.

The user subsystem 604 can perform various processes of the simulated reality platform for simulating real-world scenes to promote a real-world behavior of a user immersed in a simulation. In block 628, a real-world simulation session is initiated. The session includes a real-world scene selected from multiple real-world scenes of simulations. In response to initiating a session, the cloud subsystem can link the user profile to the session.

In block 630, a code is given to the user to grant access to the requested simulation. The code can be given to the user over a communications channel other than the channel used to link the user profile to the session. For example, the code can be sent to the user's smartphone in an SMS text message. In some embodiments, the code is a multi-digit passcode.

In block 632, the user enters the code to access the desired session. In some embodiments, the code enables the session for the user of the simulation to experience the selected real-world scene. Hence, in block 636, upon successful authentication in block 634 based on the authentication code, the session is launched to render the real-world simulation including the selected scene for the user as authorized by the authentication code. In block 634, if the code is not authenticated, the user is requested to re-enter a code.

In some embodiments, the code authenticates the user, the session, the selected scene, or combinations thereof. For example, the code may authenticate the user and the session but not a scene selected by the user. In some embodiments, different parties can select the scene. For example, the scene can be selected autonomously without intervention by the user (e.g., based on the user's profile alone) or by an administrator such as a healthcare professional specializing in rehabilitation, in a telemedicine context. In another example, the scenes of the simulation is a sequence of ordered scenes and the selected scene is authenticated only if any prior scenes of the sequence have been successfully completed by the user.

The client subsystem 606 can perform various processes for simulating real-world scenes to promote a real-world behavior of a user immersed in a simulation. In block 638, the client subsystem 606 can connect with the cloud subsystem 602 by calling an API in block 640 to gain access to the simulated reality platform.

In block 642, the client subsystem 606 can commence the user's session including a simulation of a real-world scene configured to promote a real-world behavior of the user engaged with the simulation. In some instances, the client subsystem 606 may not be authorized by default to administer certain simulations, scenes, or courses of scenes. Hence, the client subsystem 606 may need to authenticate itself to continue the simulation.

In block 644, the client subsystem 606 can be authenticated to cause a session, scene, or course to run using the user subsystem 604. For example, in block 616, the client subsystem 606 may authenticate a course for the user subsystem 604 to render a simulation. The client subsystem 606 can cause a selected course to run for a simulation or select a different course for the simulation. In some embodiments, the scene is included in a sequence of ordered real-world scenes for the session. Thus, the client subsystem 606 can cause the user subsystem 604 to render a simulation of the real-world scene under the control of the client subsystem and in accordance with an authorization granted by the cloud subsystem 602.

In block 648, the client subsystem 606 can collect data of the simulation in real-time. The data may indicate inputs by the user of the client computer in response to the simulation. The client subsystem 606 can perform various analytics such as determining whether the user is being successfully rehabilitated based on the collected data in block 648.

Lastly, the system 600 can enable third party software development kit (SDK) integration in block 650. The API access control 608 includes an interface 640 for the third-party SDK to connect to the cloud subsystem 602 or client subsystem 606. As such, a third party can participate in the simulation for rehabilitating users.

Although Figure 6 includes a set of ordered blocks, the actual architecture is not so limited. For example, any of the blocks of Figure 6 can occur in another order. Some embodiments may include fewer blocks or additional blocks that would be known to persons skilled in the art.

Figure 7 is a flowchart illustrating a method 700 performed by the simulated reality platform. More specifically, the method 700 can be performed by a server computer system (e.g., a cloud-based computer system) of the simulated reality platform for rehabilitating users of the platform by promoting real-world behaviors of users engaged with simulations.

In step 702, the server computer system initiates a session for a simulated real-world experience. In some embodiments, the simulated real-world experience can be an augmented or virtual reality simulation. The simulated real-world experience includes a real-world scene selected from multiple available real-world scenes. In some embodiments, a real-world scene is selected by a third-party provider or a user engaged with the simulated real-world experience. The simulated real-world experience can promote a real-world behavior of a user engaged with the simulated real-world experience. For example, the real-world behavior can mitigate a risk of recidivism.

In step 704, the server computer system can receive inputs obtained during the simulated real-world experience. The received inputs can include user responses to prompts, real-world positional data of the user, and/or real-world physiological data of the user. For example, each scene can elicit an alternatively selectable response from the user. The real-world physiological data can include, for example, blood pressure data, brainwave activity data, eye movement data, and/or heart electrical activity data. In some embodiments, the received inputs may be anonymized to remove data identifying the user.

In step 706, the server computer can cause a next real-world scene to render in the simulated real-world experience. The next real-world scene is selected based on at least some of the received inputs. In some embodiments, scenes elicit the user to select one of many responses, and next scenes increase in complexity with successful selection of responses to prior scenes. For example, a more complex scene can have a greater number of selectable responses compared to a less complex scene. In some embodiments, determining the next scene involves identifying a scene of a different scene as that next scene of the selected scene. In some embodiments, the scenes are rendered seamlessly to promote the real-world behavior.

In step 708, the user is evaluated based on the received inputs with an expert system to predict the

user's real-world behavior and identify a corresponding treatment. The expert system may implement artificial intelligence to evaluate the user. The expert system may be a cognitive behavioral system for rehabilitating the user. Further, evaluating the user may involve comparing conscious user inputs to real-world physiological data to determine whether, for example, the user is attempting to deceive the simulated real-world experience. In some embodiments, evaluating a user is based on a time interval between two inputs or between a user's reaction to stimuli, which can be purposefully included in scenes to trigger a reaction by the user.

In step 710, the server computer can determine whether the user has shown a correction or improvement in behavior towards achieving the desired real-world behavior. The user may be rewarded if a correction or improvement of the user's behavior has been determined. On the other hand, if the user's behavior has not corrected or improved, the rehabilitation program may iterate through one or more scenes to promote a desired correction or improvement.

In step 712, the user is rewarded in response to corrected or improved behavior. The server computer system may decide between different rewards for the user in response to the determination that the user corrected or improved his or her behavior. Examples of rewards include navigation options and/or redeemable points. For example, a user may be allowed to advance to a next level, move between levels or skip levels of a rehabilitation program. In some embodiments, the user is awarded redeemable points for passing a level. The points may be redeemed for access to real-world items such as being granted access to library hours or computing resources.

In step 714, the server computer can output data indicative of the evaluation, the predicted user's real-world behavior, and/or the treatment. In some embodiments, the treatment is a recommended therapeutic treatment identified from multiple therapeutic treatments. In some embodiments, the output includes recommending the treatment to a third-party provider of
the simulation.

In step 716, the server computer executes machine learning based on the received inputs to improve the expert system for simulated real-world experiences that promote real-world behaviors and improve predicting real-world behaviors or identifying treatments. In some embodiments, the machine learning is supervised by a third-party provider of the simulation or is unsupervised. In some embodiments, the server computer system can improve selection of a next scene for a scene to promote a real-world behavior of a user of the simulation in accordance with the machine learning. Although Figure 7 illustrates a set of ordered steps, the actual architechture is not so limited. For example, any of the steps 702 through 716 can be practiced in another order. Some embodiments may include fewer steps or additional steps accordingly.

Figure 8 is a block diagram illustrating an example of a computing system 800 in which at least some operations described herein can be implemented. For example, the computing system 800 may be responsible for sampling or collecting data related to data. The computing system 800 may include one or more central processing units (e.g., processors 802), main memory 806, non-volatile memory device 810, network adapter 812 (e.g., network interfaces), display 818, input/output devices 820, control device 822 (e.g., keyboard and pointing devices), drive unit 824 including a storage medium 826, and signal generation device 830 that are communicatively connected to a bus 816.

The bus 816 is illustrated as an abstraction that represents any one or more separate physical buses, point to point connections, or both connected by appropriate bridges, adapters, or controllers. The bus 816, therefore, can include, for example, a system bus, a Peripheral Component Interconnect (PCI) bus or PCI-Express bus, a HyperTransport or industry standard architecture (ISA) bus, a small computer system interface (SCSI) bus, a universal serial bus (USB), IIC (I2C) bus, or an Institute of Electrical and Electronics Engineers (IEEE) standard 1394 bus, also called "Firewire." A bus may also be responsible for relaying data packets (e.g., via full or half duplex wires) between components of a network appliance, such as a switching engine, network port(s), tool port(s), etc.

In some embodiments, the computing system 800 operates as a standalone device, although the computing system 800 may be connected (e.g., wired or wirelessly) to other machines. For example, the computing system 800 may include a terminal that is coupled directly to a network appliance. As another example, the computing system 800 may be wirelessly coupled to the network appliance.

In various embodiments, the computing system 800 may be a server computer, a client computer, a personal computer (PC), a user device, a tablet PC, a laptop computer, a personal digital assistant (PDA), a cellular telephone, an iPhone, an iPad, a Blackberry, a processor, a telephone, a web appliance, a network router, switch or bridge, a console, a hand-held console, a (hand-held) gaming device, a music player, any portable, mobile, hand-held device, or any machine capable of executing a set of instructions (sequential or otherwise) that specify actions to be taken by the computing system.

While the main memory 806, non-volatile memory 810, and storage medium 826 (also called a "machine-readable medium) are shown to be a single medium, the term "machine-readable medium" and "storage medium" should be taken to include a single medium or multiple media (e.g., a centralized or distributed database, and/or associated caches and servers) that store one or more sets of instructions 828. The term "machine-readable medium" and "storage medium" shall also be taken to include any medium that can store, encoding, or carrying a set of instructions for execution by the computing system and that cause the computing system to perform any one or more of the methodologies of the presently disclosed embodiments.

Moreover, while embodiments have been described in the context of fully functioning computers and computer systems, the various embodiments are capable of being distributed as a program product in a variety of forms, and they can be applied equally regardless of the machine or computer-readable media used to actually effect the distribution.

Further examples of machine-readable storage media, machine-readable media, or computer-readable (storage) media include recordable type media such as volatile and non-volatile memory devices 810, floppy and other removable disks, hard disk drives, optical disks (e.g., Compact Disk Read-Only Memory (CD ROMS), Digital Versatile Disks (DVDs)), and transmission type media such as digital and analog communication links.

The network adapter 812 enables the computing system 800 to mediate data in a network 814 with an entity that is external to the computing system 800, such as a network appliance, through any known and/or convenient communications protocol supported by the computing system 800 and the external entity. The network adapter 812 can include one or more of a network adaptor card, a wireless network interface card, a router, an access point, a wireless router, a switch, a multilayer switch, a protocol converter, a gateway, a bridge, bridge router, a hub, a digital media receiver, and/or a repeater.

The network adapter 812 can include a firewall which can, in some embodiments, govern and/or manage permission to access/proxy data in a computer network, and track varying levels of trust between different machines and/or applications. The firewall can be any number of modules having any combination of hardware and/or software components able to enforce a predetermined set of access rights between a set of machines and applications, machines and machines, and/or applications and applications, for example, to regulate the flow of traffic and resource sharing between these varying entities. The firewall may additionally manage and/or have access to an access control list which details permissions including for example, the access and operation rights of an object by an individual, a machine, and/or an application, and the circumstances under which the permission rights stand.

Other network security functions can be performed or included in the functions of the firewall,

including intrusion prevention, intrusion detection, next-generation firewall, personal firewall, etc.

As indicated above, the techniques introduced here implemented by, for example, programmable circuitry (e.g., one or more microprocessors), programmed with software and/or firmware, entirely in special-purpose hardwired (i.e., non-programmable) circuitry, or in a combination or such forms. Special-purpose circuitry can be in the form of, for example, one or more application-specific integrated circuits (ASICs), programmable logic devices (PLDs), field-programmable gate arrays (FPGAs), etc.

Note that any of the embodiments described above can be combined with another embodiment, except to the extent that it may be stated otherwise above or to the extent that any such embodiments might be mutually exclusive in function and/or structure.

Although the present invention has been described with reference to specific exemplary embodiments, it will be recognized that the invention is not limited to the embodiments described but can be practiced with modification and alteration within the spirit and scope of the appended embodiments. Accordingly, the specification and drawings are to be regarded in an illustrative sense rather than a restrictive sense.

BLOCKCHAIN TECHNOLOGY

A blockchain is a digitized, decentralized, public ledger of all cryptocurrency transactions. Constantly growing as 'completed' blocks (the most recent transactions) are recorded and added to it in chronological order, it allows market participants to keep track of digital currency transactions without central recordkeeping. Each node (a computer connected to the network) gets a copy of the blockchain, which is downloaded automatically.

Originally developed as the accounting method for the virtual currency Bitcoin, blockchains – which use what's known as distributed ledger technology (DLT) – are appearing in a variety of commercial applications today. Currently, the technology is primarily used to verify transactions, within digital currencies though it is possible to digitize, code and insert practically any document into the blockchain. Doing so creates an indelible record that cannot be changed; furthermore, the record's authenticity can be verified by the entire community using the blockchain instead of a single centralized authority.

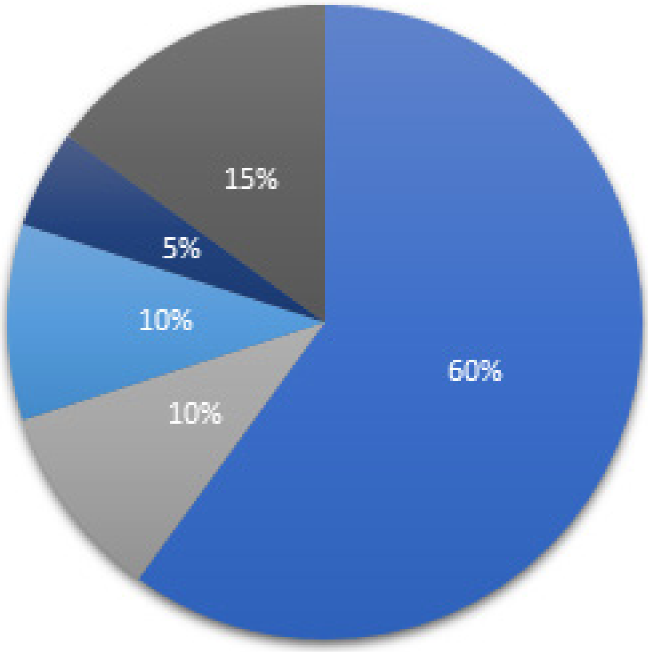
A block is the 'current' part of a blockchain, which records some or all the recent transactions. Once completed, a block goes into the blockchain as a permanent database. Each time a block gets completed, a new one is generated. There is a countless number of such blocks in the blockchain, connected to each other (like links in a chain) in proper linear, chronological order. Every block contains a hash of the previous block. The blockchain has complete information about different user addresses and their balances right from the genesis block to the most recently completed block.

The blockchain was designed so these transactions are immutable, meaning they cannot be deleted. The blocks are added through cryptography, ensuring that they remain meddle-proof: The data can be distributed, but not copied. However, the ever-growing size of the blockchain is considered by some to be a problem, creating issues of storage and synchronization.

TOKEN DISTRIBUTION

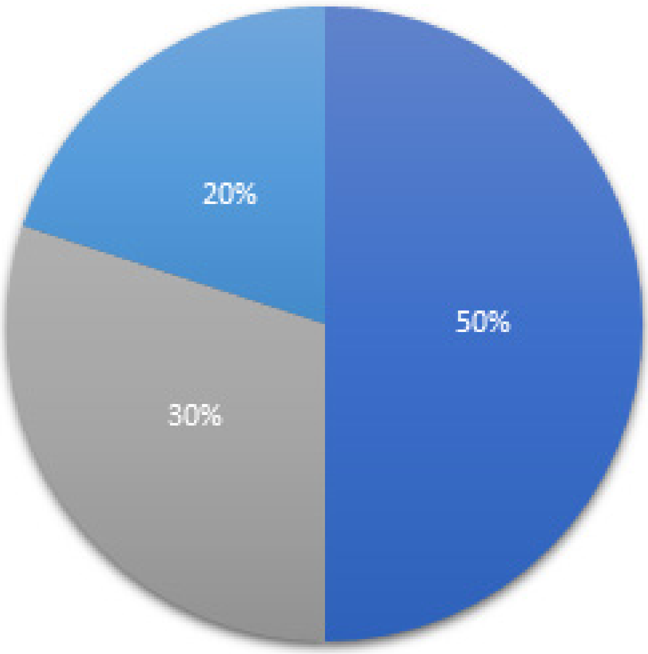
ICO DISTRIBUTION

- Token Sale
- Future Development Fund
- Partnerships
- Marketing
- Founders & Advisors



USE OF FUNDS

- Future Development
- Marketing
- Partnerships



ADVANTAGES OF BLOCKCHAIN

Efficiencies resulting from DLT can add up to some serious cost savings. DLT systems make it possible for businesses and banks to streamline internal operations, dramatically reducing the expense, mistakes, and delays caused by traditional methods for reconciliation of records.

The widespread adoption of DLT will bring enormous cost savings in three areas, advocates say:

1. Electronic ledgers are much cheaper to maintain than traditional accounting systems; the employee headcount in back offices can be greatly reduced.

2. Nearly fully automated DLT systems result in far fewer errors and the elimination of repetitive confirmation steps.

3. Minimizing the processing delay also means less capital being held against the risks of pending transactions.

In addition, some smaller number of millions will be saved by shrinking the amount of capital that broker/dealers are required to put up to back unsettled, outstanding trades. Greater transparency and ease of auditing should lead to savings in anti-money laundering regulatory compliance costs, too.

Blockchain's removal of almost all human involvement in processing is particularly beneficial in cross-border trades, which usually take much longer because of time-zone issues and the fact that all parties must confirm payment processing. Blockchain systems can set up smart contracts or payments triggered when certain conditions are met. The blockchain cotton transaction mentioned above, for example, used a smart contract that automatically made partial payments when the cotton shipment reached specific geographic milestones.

VRH TOKEN

The Virtual Rehab Token (VRH) has been created as a centralized currency to be used within the Virtual Rehab network. Users will be able to purchase and sell VRH tokens in exchanges. The token follows the standards of Ethereum ERC-20 Standard token. Its design follows the widely adopted token implementation standards. This allows token holders to easily store and manage their VRH tokens using existing solutions including ERC20-compatible Ethereum wallets.

The VRH Token is a utility token and is core to Virtual Rehab's end-to-end operations. The following section explains some of the use cases where the VRH token will be used for within the Virtual Rehab network.

VRH UTILITY

When dealing with the most vulnerable populations out there, privacy and security of information/data shared, become extremely important. Fortunately, this all can be made possible when integrating blockchain technology as part of the Virtual Rehab solution..

Below are some of the use cases for the VRH Token:

1. User pays using VRH Token to have access to pain management programs

Virtual Rehab users will have the ability to make use of their purchased VRH Tokens to place order and to download several pain management virtual reality programs which they can use for physical therapy. All orders will be placed through the Virtual Rehab portal.

2. User pays using VRH Token to have access to addiction prevention programs

Virtual Rehab users will have the ability to make use of their purchased VRH Tokens to place order and to download several addiction prevention virtual reality programs which they can use to learn new ways of avoiding substance use temptations. All orders will be placed through the Virtual Rehab portal.

3. User pays using VRH Token to have access to cognitive behavior therapy programs

Virtual Rehab users will have the ability to make use of their purchased VRH Tokens to place order and to download several cognitive behavior therapy virtual reality programs which they can use to learn new behavioral skills along with additional training programs. All orders will be placed through the Virtual Rehab portal.

4. User pays using VRH Token to receive further analysis of the executed programs

Virtual Rehab users will have the ability to make use of their purchased VRH Tokens to request further analysis of the virtual reality programs which have been executed through the Virtual Rehab portal. The analysis will be conducted through Virtual Rehab's artificial intelligence solution.

5. User gets rewarded in VRH Token for seeking help

As an incentive to reward those users who seek pain management, substance use addiction therapy as well as counselling to prevent repeat offending, Virtual Rehab will issue VRH Tokens, which can then be used by users for trading on exchanges or for further use on the Virtual Rehab portal. Certain conditions will apply along with a proof that users have sought additional therapy and counselling. The rewards incentive will be claimable using the Virtual Rehab portal.

VRH TOKEN

TIME PERIOD	ACTIVITIES
Q3 2018	Completing & Releasing Virtual Rehab White Paper Continuing Marketing and Promotion Activities Adding New Blockchain Advisors Completing registration of Virtual Rehab in Estonia Continue B2B customer acquisition
Q4 2018	Starting & Completing VRH Token Pre-Sale Starting & Completing VRH Token Main Sale Distributing VRH Token to Contributors Listing on Decentralized Exchanges Discussions with Top 10 Exchanges Hiring New Employees across different Functions Addition of New Advisors Continuing Product Development Continuing Marketing and Promotion Activities
Q1 2019	GitHub Release New Listing on Top 10 Exchange Opening of New Virtual Rehab Office in the Americas Continuing Product Development Updating Virtual Rehab White Paper Updating Virtual Rehab Website Announcement of New Partnerships within the Americas market Continuing Marketing and Promotion Activities
Q2 2019	Virtual Rehab Portal Launch New Listing on Top 10 Exchange Continue Product Development Announcement of New Partnerships within the APAC/MENA market Updating GitHub Continuing Marketing and Promotion Activities
Q3 2019	New Features Roll-out on Virtual Rehab Portal New Listing on Top 10 Exchange Announcement of New Partnerships within the European market Updating GitHub Opening of New Virtual Rehab Office in the European/MENA region Continue Marketing and Promotion Activities
Q4 2019	New Features Roll-out on Virtual Rehab Portal Opening of Virtual Rehab Therapy Center New Features Roll-out on Virtual Rehab Portal Announcement of New Partnerships Continuing Marketing and Promotion Activities Updating Virtual Rehab White Paper Updating Virtual Rehab Website Updating GitHub Releasing Roadmap for 2020 – 2022

TOKEN SALE INFORMATION

In the following sections, we will be providing you with additional detail regarding the Virtual Rehab token sale of its VRH Token.

Timing

Private Sale	August 1 2018 – October 31 2018
Pre-Sale	November 1 2018 – November 14 2018
Main Sale	November 15 2018 – December 14 2018

Private, Pre-Sale, and Main Sale will commence at 9:00 AM Eastern Standard Time (1:00 PM GMT) and end at 6:00 PM Eastern Standard Time (10:00 PM GMT).

Virtual Rehab Pre-sale and VRH Token creation will take place using Ethereum smart contracts. Virtual Rehab will only accept Ethereum Coin (ETH) and Binance Coin (BNB) as a form of payment.

All ETH and BNB contributions will need to be sent to the Virtual Rehab Ethereum address provided by the Virtual Rehab administrator. The Virtual Rehab Ethereum address will be communicated on the following Virtual Rehab's social media platforms (Twitter, LinkedIn, Google+), Telegram channel, as well as the Virtual Rehab website.

**** NO OTHER ETHEREUM ADDRESS SHOULD BE USED OTHER THAN THE ONE COMMUNICATED ON THE VIRTUAL REHAB PLATFORMS. PLEASE BE AWARE OF SCAMS. PLEASE ALSO NOTE THAT NO TELEGRAM ADMIN WILL BE REACHING OUT TO YOU DIRECTLY TO AVOID ANY POSSIBLE SCAMS.*

TOKENOMICS

TOKEN INFO	
Type of Token	Completing & Releasing Virtual Rehab White Paper
Ticker	VRH
Decimals	18
PRE-SALE INFO	
Start Date	November 1 2018 @ 9:00 AM EST (1:00 PM GMT)
End Date	November 14 2018 @ 6:00 PM EST (10:00 PM GMT)
Total VRH for Sale	60,000,000
Price per VRH	$0.10 USD
Bonus	First 24 Hours = 30% Following First 24 Hours and BEFORE 11:59 PM EST September 8 = 20% Following 11:59 PM EST September 8 = 15%
Min Contribution	$1,000 USD
MAIN SALE INFO	
Start Date	November 15 2018 @ 9:00 AM EST (1:00 PM GMT)
End Date	December 14 2018 @ 6:00 PM EST (10:00 PM GMT)
Total VRH for Sale	180,000,000
Price per VRH	$0.10 USD
Bonus	First 24 Hours = 10% Following First 24 Hours and BEFORE 11:59 PM EST October 1 = 5% Following 11:59 PM EST October 1 = 0%
Min Contribution	$100 USD
ADDITIONAL INFO	
Soft Cap	$5,000,000 USD
Hard Cap	$20,000,000 USD
Total Supply	400,000,000
Max Supply	400,000,000
Circulating Supply	Will be calculated post ICO sale completion
Accepted Contribution	ETH, BNB
Whitelist/KYC	Yes
Lock-Up Period	No
Virtual Rehab Team	All Tokens allocated to Virtual Rehab Team vest 12 months post ICO sale completion
Countries Excluded	United States of America (Unless Accredited Investor),New Zealand, People's Republic of China, and the Republic of Korea

Token sale will continue until Hard Cap is reached or until all VRH tokens are sold out as part of the token sale.
VRH Tokens which are not sold as part of the token sale will be burned.

BOUNTY PROGRAM

Virtual Rehab has allocated $300,000 to reward users who contribute to the success of the Virtual Rehab token sale through the following:

- Twitter Bounty Campaign
- Facebook Bounty Campaign
- YouTube Bounty Campaign
- Telegram Bounty Campaign
- LinkedIn Bounty Campaign
- Medium Bounty Campaign
- Video Bounty Campaign
- Content Creation Bounty Campaign
- Translation Bounty Campaign
- Reddit Bounty Campaign
- Signature Bounty Campaign
- Telegram Engagement Bounty Campaign
- ICO Listing Sites Bounty Campaign

Additional allocation may be added as the Virtual Rehab team deems necessary.

FOUNDERS & ADVISORS

DR. RAJI WAHIDY

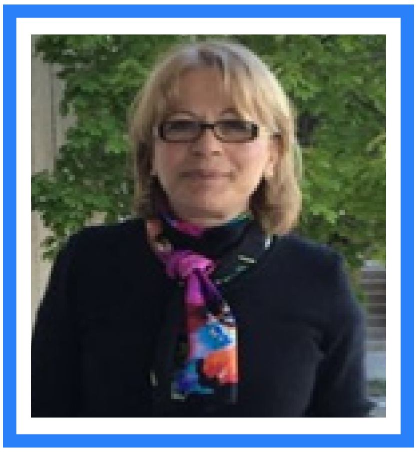
FOUNDER & CEO

Dr. Raji Wahidy has over 15 years of experience along with a proven record of achievement and excellence with the world's most renowned organizations (Vodafone and Ericsson).
Visionary with a strong business acumen resulting in driving global initiatives, strategic business plans, global transformation programs, standardized operations, customer satisfaction, revenue generation, and cost cutting.

In October 2009, he launched his first venture; Amalana, a one-stop shop platform delivering Global Networking Services to its users. Services included social networking, beauty and health consultation, news reporting, dating services, gaming, job bank, along with an educational portal to enhance communication among students, professors, and parents. Amalana successfully exited in August 2012.

Dr. Wahidy holds a bachelor's degree in Electrical Engineering (Telecommunications), a master's degree in Quality Systems Engineering and Business Administration (Procurement & Supply Chain Management), and a doctorate degree in Management (Organizational Leadership).

Dr. Wahidy is a registered UN and UNICEF volunteer and is recognized with over 15 global enterprise achievement awards. He has also been actively involved within the blockchain industry since 2013.



MRS. AMAL AZZEH

CO-FOUNDER & CFO

Mrs. Amal Azzeh leads Virtual Rehab's finance operations.

She brings along 40+ years of experience in finance along with a proven record of achievement and excellence in the financial sector.

Mrs. Azzeh co-founded My Recruiting Team, a platform better known for its first-to-market Recruitment Helpdesk Support Services, which focuses on delivering a stellar candidate and organizational recruitment experience. Other services include End-to-End Recruitment, Employee Onboarding, and Consultation Services.

Mrs. Azzeh's experience spans well beyond the balance sheet and the P&L. With a well-rounded experience and a charismatic personality along with the ability to see through business and clients' needs, Amal contributes to the overall strategy and operational direction of Virtual Rehab.

MR. JEAN SPEVILLE

CHIEF MIND STRATEGIST

Mr. Jean Speville is a member of the Virtual Rehab leadership team and will be overseeing the overall strategy for technological innovation and deployment to ensure that Virtual Rehab meets the needs of our B2B and B2C users. He will be assuming the role of Virtual Rehab's Chief Mind Technologist.

Mr. Speville has been nominated for Innovators Under 35 Europe Awards by MIT Technology Review twice (2017 & 2018).

He's an impact entrepreneur, biohacker, and mindfulness practitioner. In addition, he has a number of affiliations including the below:

· Member of The Verizon Innovation Program in San Francisco — one of the most ambitious and technologically advanced innovation programs in the technology industry.

· Alumni of The Microsoft Accelerator Bootcamp Program. Member of Sting accelerate — Stockholm's & Nordic's no. 1 accelerator and incubator for tech startups in the Nordics.

· Mr. Speville is based in Stockholm, Sweden.

MR. PAUL MEARS

CO-FOUNDER @ AMMERIS

Mr. Paul Mears is a member of Virtual Rehab's Advisory Board.

A 'maven' is a deeply trusted expert in a particular field, who seeks to pass their knowledge on to others. The word maven comes from Old Hebrew, meaning "one who understands." This is the word that best defines Mr. Paul Mears, an experienced businessman, serial entrepreneur, and financial professional. He has held several senior positions and finance roles in a range of publicly and privately-owned companies located in several countries. Paul is a founding board member and chair at Ammeris, with previous management experience with the Middle Office at the Hedge Fund of Cambridge Strategy and co-founder of Modex Tech.

Mr. Mears started his career in accounting and finance before progressing into various commercial finance management roles. Since then, Mr. Mears has worked in accounting and business management to finally become a serial seed investor focusing in biotech, medical devices, fintech, technology and its applications. He brings invaluable experience as a business angel in over 20 companies, and specializes in token offerings, community engagement, and growth strategy formation at Ammeris.

MR. BINOD NIRVAN

FOUNDER @ MIXERP

Mr. Binod Nirvan is a member of Virtual Rehab's Advisory Board.

Mr. Nirvan is an enthusiastic entrepreneur focusing on assisting startups turn their ideas into reality. He has an offshore team in India and Nepal that have been working together in helping several startups build revolutionary apps, highly reducing the cost to launch, and maintaining web and mobile application.

Mr. Nirvan has founded several ISVs specializing in CBS, Insurance, HRM, and ERP. He has over a decade of experience in developing software solutions. He is proficient in software development: Javascript, HTML5, Semantic UI, Foundation, ASP.net, C#, Solidity, Java, PostgreSQL Server, and a few more.

Mr. Nirvan always has a passion to contribute something meaningful to the open source community and he believes when you give, you get more. MixERP project gave him an opportunity to contribute back to the open source community. MixERP is state-of-the-art, mobile friendly, and cloud-optimized ERP solution.

ETHAN GILMORE

PARTNER @ AMMERIS

Mr. Ethan is a member of Virtual Rehab's Advisory Board.

Mr. Gilmore started his career in 2003 in the alternative investment space and has worked across the hedge fund, private equity, investment banking, renewable energy, media, and technology sectors.

He has been deeply involved in the blockchain space since 2015 and has spoken at such institutions as The Harvard Business School Club of New York, The National Security Institute, The Harvard Business School Club of Philadelphia, Digital Hollywood, Viacom, The Young President's Organization, Princeton University (Frick Laboratory, Envision Conference), The New School, Silicon Beach, Jefferies and many others about distributed ledger technologies and their applications across various verticals.

Mr. Gilmore is a magna cum laude graduate of the University of California, Los Angeles.

MR. DONALD COX

VP & CHIEF INFORMATION SECURITY OFFICER @ MEDNAX

Mr. Donald Cox is a member of Virtual Rehab's Advisory Board.

Mr. Cox is currently the Vice President & Chief Information Security Officer at MEDNAX. Previously, he was selected as Chief Information Officer for Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA).

At the SAMHSA, Mr. Cox, oversees IT strategy, operations, human resources, and financial management of a Health and Human Services (HHS) Operational Division's IT program, consisting of enterprise IT systems, data center, cloud computing, and software development contracts. Additionally, he directly coordinates with the HHS CIO Office, HHS Operational Divisions, and SAMHSA Program offices to advance the behavioral health of the nation through health IT while reducing total cost of ownership.

Don has 20 years of technology and cyber security related experience. Don has served as the Chief Information Officer and other executive roles architecting, managing, and securing geographically dispersed technology systems for the Department of Defense, Department of Energy, Department of State, Department of Labor, Homeland Security, Recovery Accountability and Transparency Board, healthcare and pharmaceutical industry. In the role of President for Innava Data Solutions, he led the construction of a large multi-tenant commercial data center.

Don currently serves as a member of the Advisory Board for the 4th fastest growing Managed Security Services Provider, Netswitch.

Don holds a master's degree with a focus on the Management of Information Technology, a Master's in Business Administration with a concentration on Information Technology; Chief Information Officer Certification, and Project Management certification. He has been recognized and received numerous accolades for his ability to identify and implement bleeding edge technology. Don is sought after to speak at conferences, be interviewed, write and peer review the work and technology of other technology professionals.

MRS. KAREN HURST

FUTURIST & LEAD ARCH @ KAISER PERMANENTE

Mrs. Karen Hurst is a member of Virtual Rehab's Advisory Board.

Mrs. Karen Hurst is a 20-year experienced technologist whose work has disrupted industries and changed the world as well as lives. She is currently assuming the role of a futurist and lead arch in TRO's Innovation & Transformation (Healthcare, Research, and Medical Devices) at Kaiser Permanente.

Early in her career, Mrs. Hurst worked at the US Oak Ridge National Labs (ORNL) in Oak Ridge TN. In addition, Mrs. Hurst was one of the youngest and few female US Department of Energy's Computer Scientists Level 3. While working at ORNL, Mrs. Hurst and her team developed and continued to enhance some of the US government's most sophisticated laboratory systems. Much of her work required close partnerships with many of the physicists and chemists at ORNL; and some of these same physicists were even the interns of some of the world's most iconic physicists of the 40s and 50s. These same scientists relied heavily on the laboratory systems, Mrs. Hurst and her team developed to prove theories, conduct research, and analyze field samples from all over the world.

Since many of these laboratory systems were leveraged as the foundation for much of the US Department of Energy's experiments; the systems often were secured by cryptology code and often written in complex physic related algorithms. Mrs. Hurst's work at ORNL provided exposure and development opportunities with the world-wide-web (prior to its release to the public) and to the X-10 Supercomputer research.

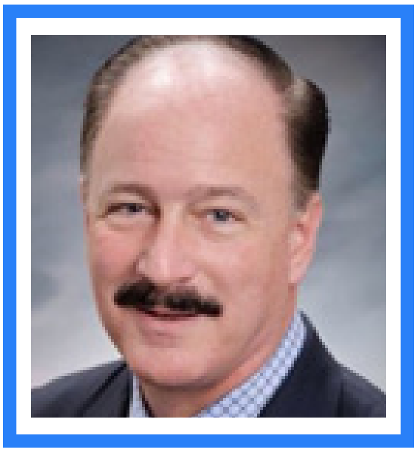
Upon leaving ORNL, Mrs. Hurst was provided opportunities to architect and deliver some of the world's largest digital transformations in companies such as Coca-Cola, Great American Financial Group, NCR Teradata, NDCHealth, Warner Brothers, Clorox, HP, Allergan, BMS, and Stewart Title. In parallel to these large-scale transformations, Mrs. Hurst delivered AVL-Scientific's first Mobile Blood Gas Analyzers that was later acquired by Roche, and she delivered one of the first mobile P&C mobile architectures and applications. In 2010, Mrs. Hurst's team and organization (Stewart Title) won InformationWeek's Best In Industry Award for their organizational and digital transformation work.

In 2010, Mrs. Hurst joined Microsoft Corporation where she became part of the leadership in the Office of the CTO that reported to Tony Scott (Microsoft's CIO) at the time. Mrs. Hurst and her team's primary responsibilities to Microsoft was to transform Microsoft IT into Services, Devices, Cloud and Mobility 1st, "real-time" IT organization. Mrs. Hurst's second key responsibility was to define a 10-year future state strategy and roadmap for Microsoft's key Business Platforms that defined which platforms would be in the cloud as well as mobile; and what did the next generation platforms and services looked like beyond cloud and mobility. Mrs. Hurst's next major task was to onboard Microsoft internally onto cloud and mobility which her team did successfully through services such as the Enterprise Portfolio Management and Connected CRM.

Three and a half years later, Mrs. Hurst's team changed the corporate wide IT operating model through rationalizing and standardizing the corporate core capabilities, processes, and technology investments. Her team restructured and aligned all corporate functions to be aligned first by business then by product lines to promote scale and real time responsiveness. Finally, with Mrs. Hurst and her team's achievements in their work on the 10-platform future state strategy and roadmap work; Mrs. Hurst was able to provide enriched technical insights to the various product teams and IT on where the commercial products and services needed to transform as well as insights on the types of technologies that Microsoft should consider investing in to remain relevant or change the industry. Today, Microsoft is in the top 3 in the world for Cloud; and in the top 2 for product innovation. During Mrs. Hurst's time at Microsoft, she has won numerous awards for her work including Innovation Excellence Award, Connect the Dots Award, User Experience Award, Security and Innovation Award, etc.

As a result of her innovation and delivery work over the years, Mrs. Hurst was asked to join NextGen Moonshot Programs which was a joint venture company focused on experimental and cutting edge technologies that disrupts and enables tech companies a competitive edge on some of the world's most challenging and experimental technologies such as an Openstack Security interface for enterprise security traceability and monitoring of IoT; Quantum Computing and Security, and BCI research and technologies.

Not only has Mrs. Hurst led many of the efforts listed above; but she has also dedicated her free time to numerous medical research efforts and foundations by helping them to locate new technologies to assist them in their efforts to identify cures or new treatments to assist patients. Some of the foundations that Mrs. Hurst has been involved in include DMRF, ECAA, PHG International, and the Colon Cancer Network. In addition, Mrs. Hurst and her family have been engaged in many cancer research studies including those at UCLA, Vanderbilt, Duke, OH State, University of NY, and Oak Ridge Associates Universities.



MR. PHILIP FASANO

HEALTHCARE INDUSTRY C-LEVEL EXECUTIVE

Mr. Philip Fasano is a member of Virtual Rehab's Advisory Board.

Mr. Fasano is an award-winning chief information officer with 30+ years' experience in the technology, healthcare, and financial services industries. He has created IT strategies, products, investments, and security methods that have developed into industry standards. Mr. Fasano was also inducted into the CIO Hall of Fame, which includes the top 100 CIOs worldwide.

During his professional career, Mr. Fasano has served as CIO for AIG (2014-2017), Kaiser Permanente (2007-2014), Capital One (2003-2004), J.P. Morgan Chase (2001-2003), American Financial Group (1999-2001), and Deutsche Financial Services (1996-1999). He is also the founder of Capital Sourcing Group where he provided strategic consulting services to the Department of Homeland Security and Fortune 500 CEO's, focusing on emerging technology, cybersecurity, and financial oversight.

He has received numerous accolades for his forward-thinking and innovation, including the ACORD Case Study Award, CIO 100 Award, HIMSS Analytics Stage 7 Award & Davies Award, and the Uptime Institute's Continuous Availability Award. He has also received recognition from Computerworld for leading Kaiser Permanente to serve as one of the "Top 12 Green-IT Organizations" and one of the "100 Best Places to Work in IT".

Mr. Fasano has served on a multitude of nonprofit and corporate boards of directors including NCIRE: The Veterans Health Research Institute (2010-Present), New York Academy of Medicine (2015-Present), New York Institute of Technology (2015-Present), and Infoblox (2014-2016).
Additionally, he has served on various Advisory Boards (Sierra Ventures beginning in 2009, Cisco Systems from 2010-2014, Hewlett-Packard Company from 2009-2014, Oracle Corporation from 2008-2014, and the Sprint Corporation from 2010-2014).

He currently contributes to numerous Peer Boards with leading CIO's, sharing perspectives on industry trends, challenges, and growth opportunities, including the CIO Strategy Exchange (beginning in

2013), Diamond Management & Technology Consultants (2008), and The Research Board (2008), while formerly serving on the McKinsey & Company Peer Board (2013-2014).

Mr. Fasano has established a history of building and developing leadership teams, advising on industry trends, and collaborating across the scientific and academic communities, as well as with government officials to address a broad spectrum of issues including integrating technology into the study of veteran's health, worldwide public health and wellness issues, and creating long-term strategies that build value.

Mr. Fasano is a graduate of Long Island University where he received his MBA and New York Institute of Technology, earning a BS in Computer Science.

DR. LARRY WRAY

PRINCIPAL
@ WRAY CONSULTING

Dr. Larry Wray is a member of Virtual Rehab's Advisory Board.
Dr. Wray has over 30 years of experience in healthcare. He is currently consulting early stage and established companies, universities and non-profit organizations on commercializing new technologies as clinical diagnostic products or research tools.

Prior to his current practice, Dr. Wray most recently was VP, Development at Nanomix, a nanotechnology-based point of care diagnostic company and immediately prior to that was VP, R&D for the diagnostics business at PerkinElmer, where he was responsible for a global organization with sites in the U.S., China, and Europe. He has also held leadership positions in R&D, program management, business development, and manufacturing at BayPoint Biosystems (an oncology diagnostic company), Celera (a molecular diagnostic company, now part of Quest), Ventana (a tissue diagnostics company, now part of Roche) and Abbott Diagnostics.

Dr. Wray has been responsible for the launch of products spanning a wide range of technologies a nd applications, including infectious diseases, oncology, metabolic diseases, prenatal testing and newborn screening. These have involved world-wide launches, requiring approvals by domestic and international regulatory organizations. He has a broad knowledge of established and emerging technologies and products and their integration into health care delivery. In his various roles, he has been a leader in the development of strategies and programs for novel products making a positive impact on improving the care of patients and in preventative medicine.

Dr. Wray was a postdoctoral fellow in human genetics at the University of Pennsylvania School of Medicine. He holds a PhD in genetics from the University of Texas at Austin, a MS in genetics counseling from the University of California, Berkeley, and a BA in chemistry from Southern Illinois University at Carbondale.

DR. JEFFREY PFEIFER

ASSOCIATE PROFESSOR OF FORENSIC PSYCHOLOGY @ SWINBURNE UNIVERSITY OF TECHNOLOGY

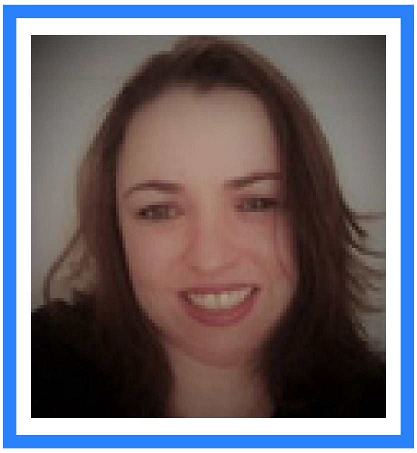
Dr. Jeffrey Pfeifer is a member of Virtual Rehab's Advisory Board. Dr. Pfeifer is an Associate Professor of Forensic Psychology at Swinburne University of Technology in Melbourne, Australia. He has been teaching and researching in the area of social psychology, policing, and correctional psychology for over 20 years.

Dr. Pfeifer has published over 35 peer-reviewed and has testified in several trials as an expert witness in both Canada and the US. The Supreme Court of Canada have cited his research as well as the Appellate Courts in Ontario and British Columbia and he has had reports tabled by the State Parliament of Western Australia and the Provincial Parliament of Saskatchewan.

Dr. Pfeifer is the recipient of the 2004 International Corrections and Prisons Association Research Award as well as a former member of the Canadian National Committee for Police Mental Health.

He has also conducted numerous program evaluations and training workshops for a variety of organizations including the Corrections Victoria, G4S Australasia, Royal Canadian Mounted Police, Ontario Provincial Police, Western Australia Department of Corrections, Russian Ministry of Corrections, Namibian Correctional Service, Anti-Corruption Commission of Zambia, Singapore Airport Security Service, and the Durban (South Africa) Police Service.

Most recently Dr. Pfeifer has been conducting a program of research on the use of technology and gaming as a platform for positively impacting the well-being and rehabilitation of offenders.



DR. BOBBIE TICKNOR

ASSOCIATE PROFESSOR @ VALDOSTA STATE UNIVERSITY & CEO OF CORRECTIONAL TRAINING SOLUTIONS

Dr. Bobbie Ticknor joins Virtual Rehab's Advisory Board to offer her expertise in both correctional rehabilitation and technology.

Dr. Ticknor is an Assistant Professor at Valdosta State University in Georgia and CEO of Correctional Training Solutions. She received her doctorate from the University of Cincinnati with a concentration on correctional rehabilitation. Her research interests include offender classification and assessment, correctional rehabilitation, technology in criminal justice, sex offender policy and practices, and biosocial criminology. She is a certified trainer in cognitive behavior therapy, aggression replacement training, and motivational interviewing. She is also a certified IBM Lotus Professional and SQL Certified Developer. Dr. Ticknor has over fifteen years of software development and consulting experience and over a decade's worth of experience working with various offender populations and criminal justice agencies across the United States and Canada.

Dr. Ticknor has been involved on various projects and grants focused on correctional rehabilitation. She is currently working with Lowndes County, GA to establish a reentry center focused on evidence-based practices for successful reintegration. Dr. Ticknor is also on the advisory board for the National Incarceration Association and has worked with the leadership to develop a Family Guidance Curriculum focused on assisting family members of those who are incarcerated. She was project manager on the Ohio Reentry Grant Project focused on evaluating the 13 counties that make up the Ohio Reentry Coalition. Dr. Ticknor was also involved with the Ohio Prison Study and in the development of a cognitive-based sexual offending curriculum and training program now being used in three states. Additionally, Dr. Ticknor has conducted numerous program evaluations and trainings for correctional agencies across the country.

In 2013, Dr. Ticknor led the pilot for the first treatment group with offenders using a virtual environment. The Virtual Environment for the Treatment of Offenders (VETO) was piloted at a residential juvenile treatment facility in Ohio and was a feasibility study to explore if and how group facilitation could be done in a virtual environment. Additionally, she explored whether traditional CBT could be enhanced with the use of virtual reality. As a result of this study, Dr. Ticknor has proposed nine principles for effective group facilitation using VR and is currently working on a curriculum for group facilitation.

*** Note that the extended Virtual Rehab team includes 1 operations manager, 1 project manager, 1 blockchain engineer, 1 front-end engineer, 1 back-end engineer, 2 virtual reality programmers, 1 artificial intelligence engineer, who work along with Virtual Rehab on a contractual basis. We look forward to onboard some of those engineers along with other highly qualified and professional team members across various functions upon completion of our token sale event.

RECOGNITION & AWARDS

Since its establishment back in 2017, Virtual Rehab has been recognized as a market leader in leveraging virtual reality and artificial intelligence for the prevention of substance use addiction and the rehabilitation of repeat offenders.

Some of the notable successes include the below:

- Evidence-based solution with proven efficacy results approved by physicians, psychologists, and therapists
- 87% of participating patients have shown an overall improvement across various metrics
- Described by US Digital Government Head as a “capability that is very very promis ing for public services”
- Only VR/AI company included in the US Department of Justice, Institute of Corrections Environmental Scan report
- Partnership agreements in-place across the North America, Europe, Middle East, and APAC regions
- Only company to represent Canada as part of the Canadian Delegation to Arab Health
- Selected as one of Canada’s most promising high-growth life sciences companies (Dose of the Valley, CA)
- Featured by Microsoft’s leadership team at the Microsoft Inspire Innovation Session
- Nominated by The Wall Street Journal for the WSJ D.LIVE Startup Showcase (Laguna Beach, CA)
- Ranked by Spanish media as the first option for training correctional officers and rehabilitation of offenders using virtual reality
- Featured by the media across 28 countries

In addition, Virtual Rehab has successfully established seven different partnerships covering the Americas, APAC, MENA, and EU markets. We are also currently in negotiations to onboard additional partners.

MEDIA

Virtual Rehab has been featured by over 28 countries around the world. Below is a collage of some of the media coverage received by the Virtual Rehab team. You can read through the various articles by visiting the Virtual Rehab website at https://www.virtualrehab.co.

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All contributions will be applied towards the Company's objects, including without limitation promoting the research, design and development of, and advocacy for an open sourced blockchain-based infrastructure level protocol for leveraging virtual reality along with artificial intelligence for the prevention of substance use addiction and rehabilitation of repeat offenders. This white paper is intended for general informational purposes only and does not constitute a prospectus, an offer document, an offer of securities, a solicitation for investment, or any offer to sell any product, item or asset (whether digital or otherwise). The information herein below may not be exhaustive and does not imply any elements of a contractual relationship. There is no assurance as to the accuracy or completeness of such information and no representation, warranty or undertaking is or purported to be provided as to the accuracy or completeness of such information. Where this white paper includes information that has been obtained from third party sources, the Virtual Rehab team have not independently verified the accuracy or completion of such information. Further, you acknowledge that circumstances may change and that this white paper may become outdated as a result; and the Company is under no obligation to update or correct this document in connection therewith. This white paper does not constitute any offer by the Company, the Distributor, or the Virtual Rehab team to sell any VRH (as defined herein) nor shall it or any part of it nor the fact of its presentation form the basis of, or be relied upon in connection with, any contract or investment decision. Nothing contained in this white paper is or may be relied upon as a promise, representation or undertaking as to the future performance of VIRTUAL REHAB. The agreement between the Distributor and you, in relation to any sale and purchase of VRH is to be governed by only the separate terms and conditions of such agreement. By accessing this white paper or any part thereof, you represent and warrant to the Company, its affiliates, and the VIRTUAL REHAB team as follows:

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(b) none of the Company, its affiliates, and/or the VIRTUAL REHAB team members shall be responsible for or liable for the value of VRH, the transferability and/or liquidity of VRH and/or the availability of any market for VRH through third parties or otherwise;

(c) in any decision to purchase any VRH, you have not relied on any statement set out in this white paper;

(d) you will and shall at your own expense ensure compliance with all laws, regulatory requirements, and restrictions applicable to you (as the case may be); and

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The information set out in this white paper is for community discussion only and is not legally binding. The agreement for sale and purchase of VRH and/or continued holding of VRH shall be governed by a separate set of Terms and Conditions or Token Purchase Agreement (as the case may be) setting out the terms of such purchase and/or continued holding of VRH (the Terms and

Conditions), which shall be separately provided to you or made available at https://www.virtualrehab.co/. In the event of any inconsistencies between the Terms and Conditions and this white paper, the Terms and Conditions shall prevail.

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