



New Start-up enters the VR world:

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VR Motion Learning GmbH & Co KG
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Groundbreaking educational learning program being developed by an Austrian start-up shakes up the tennis world:

Vienna, Austria / September 13th 2019 / PRNewswire/: Soon you can virtually learn how to play tennis with a perfect technique in only a fraction of time: efficiently and accurately players learn in a personalized and customized set-up how to improve their movements. This scientific project, accompanied by the Technical University of Vienna TUW and major industrial partners, is based on individual biomechanical data.

How does the Virtual Tennis Trainer work?

The player's biomechanical data are scanned and processed while the system calculates the optimal movements pattern. Then, the user puts on the VR goggles, takes the racket and starts playing tennis – on a virtual court, with virtual balls, instructed by a virtual coach and against virtual opponents.

All body movements are accurately recorded and analyzed. Any deviations of the relevant parameters, like body position, legwork, arm position, stroke etc., are visualized on a “virtual dashboard” and via a real-time and replay “shadow”. At first, the player starts the training in slow motion, secondly progresses step by step in fast modus improving the strokes and body movements in order to learn perfect ones.

Training in the Virtual Reality environment optimizes the body position, the motion, the way the player hits the ball, the game tactics and much more. The software gives instant feedback on how to improve on every important variable and hence it quickly leads to a perfect technique. For example, the user can master to place a ball on an exact spot with a defined speed and spin. The user can practice this again and again until she or he knows how to do it.

This training is embedded in an entertaining and competitive game; any progress rewards points and the player may move up from level to level. In future, the system will provide the opportunity to engage in virtual tennis matches with family and friends. Moreover, players can even play with their tennis idols.

In addition, tactical play can be practiced, as a player can use the pattern of the future opponent and find their weaknesses while playing a virtual game against them.

With a perfect technique according to the individual biomechanical data, it is possible also to prevent some injuries, for example the dreaded tennis elbow. Statistically every third player might experience this due to wrong postures for a swing.

Which technology is behind the Virtual Tennis Trainer?

The applied technologies cover video & audio fidelity in VR, highest levels of immersion, haptic feedback, real-time full body motion tracking and capture, interaction with people and objects, multiplayer games, games between locations and usage of data collection, similarity modelling, biomechanical modelling, real-time data analysis and processing using Machine Learning & Artificial Intelligence tools. The new VRML platform integrates all necessary technologies and content into powerful and universal solutions to enable multiple B2C and B2B products and to significantly improve quality and effectiveness of motion procedures.

About VR Motion Learning GmbH & Co KG:

The vision is to build a VR platform technology for many other use cases such as sports like tennis, baseball and golf, VR LBE gaming, physiotherapy & rehabilitation & fitness, VR eSports, industry applications and more.

How is VR Motion Learning GmbH & Co KG financed?

VR Motion Learning GmbH & Co KG is fully seed-financed by its own founders, backed by a grant from the FFG (Austrian Forschungsförderungsfonds – Research promotion agency). Next investment round (Series A) is scheduled for the fall 2020.

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