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Rendering Sounds, Sales and Instructional Capabilities in a Virtual World

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JVWR Assembled 2020 presents our final contribution to a focused effort within the capacity of Virtual Worlds. This issue includes three articles covering 360 audio technologies, instructional use, and the topic of purchase intentions in Virtual Worlds. The issue is led by devoted research partners who have worked together previously. Dr. Angie Cox, Professor of Business Technology and Process Improvement & Professor at the Air Force Institute of Technology, acts as the prime editor. Dr. Ryan Durbin, at the Washington State Patrol, and Dr. Vernell Hall, of Trident American Intercontinental University, act as the co-editors. The team is a perfect match of diverse perspectives and experience and, when combined, construct a splendid read for academia and practitioners.

In Hui Xiong and Weijie Yu’s manuscript “Virtual Goods Purchase, Game Satisfaction and Perceived Justice: An Empirical Study of Players of PVP Mobile Games” the authors look at the perceptions of fairness associated with ‘freemium’ in mobile games. In these games, applications are free of charge but players can purchase goods. The thought behind this was virtual goods consumption should affect players’ perceived justice of the game, while game satisfaction should also have a part in this. They found this to be true and also found players’ utilitarian satisfaction had more influence than hedonic satisfaction. Game developers can use this knowledge to mold their strategy leading to sales by concentrating on game satisfaction.

Next, Kenneth Lim and Lionel Jun Ting Lim present an experimental study titled “Redstone Jammin’: Conversational analysis from a collaborative music-making activity in Minecraft.” The study explores Minecraft’s affordances, how learning within a collaborative group can happen
differently, with each participant having diverse backgrounds in music and Minecraft, and how they may use this to their advantage. The authors used Diana Laurillard’s “Conversational Framework and its practicality in applying to a targeted group of the same age to explore how the conflation of both teaching and learning will occur in the game overworld.” A great deal of the study emphasized how novices can step up and guide others in areas they are more proficient in since a collaborative task is given to them. The data collected from two unique settings and separate groups of participants helped the authors draw upon their findings and conclusion. The study found the conversational framework to be valid teaching-learning process, “as the participants engaged in the music-making activity while learning more about how the pre-constructed tutorial environment had its relation to their real world, and this was so through the resemblance present in both the objects presented to them in Minecraft and practical electronics circuitry.” Furthermore, the authors conclude that Minecraft is a suitable platform that helps novices gain knowledge in a virtual world with less intervention from teachers and experts.

Lastly, Richard Ferdig, Karl Kosko, and Enrico Gandolfi present the use of ambisonic audio when paired with 360 videos is explored by researchers in the study titled “Effect and influence of ambisonic audio in viewing 360 videos.” This study examines how auditory influences and multi-dimensional stimulation impacts how participants perceive, respond, and recall content. This exciting research addresses a void in virtual reality (VR) studies. It could help change the priorities placed on the auditory sense as it pertains to virtual environments and student learning outcomes. This study compared how participants performed when instruction material was presented using both monophonic and ambisonic audio stimuli. Researchers identified differentiation between the two groups, primarily noting an increased level of focus for participants experiencing ambisonic audio stimulation.