



ENTER 2000: VIRTUAL REALITY AND ASSISTIVE TECHNOLOGY

Conferences Frontline Issue 45 Dec 14, 2000

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London, 16-18 November 2000

'Why not go straight to the kitchen?' That was my first thought when the use of virtual reality was introduced to delegates at the virtual reality conference organised by Mencap in London's Millennium Dome. The theme of the conference was the use of virtual reality as a means of introducing various skills to people with learning and other disabilities. I am no Luddite—on the contrary, I am a strong advocate of the use of technology in the disability arena. However, this first negative thought was the challenge I had to overcome during the presentation of the various papers on the topic.

I am happy to report that my criticism was well answered during the following two days. Though there were several seminars to choose from, the areas I was particularly interested in were employment and lifeskills, the former because of the involvement of our service users in supported employment and the latter because, in my view, it is impossible to separate lifeskills and employment skills in a supported employment environment.

In a presentation by Dr Barbara Brooks from the University of East London, the construction of a 'virtual kitchen' was used to evaluate the difference between the use of virtual reality (VR) and real-world (RW) training. One of the advantages of the VR environment was its ability to simulate realistically the hazards associated with the environment. A convincing chip-pan fire was demonstrated, together with the correct procedure for dealing with it (one reason, perhaps, for *not* rushing straight to the kitchen). In many of the following presentations, VR was cited as an ideal medium for health and safety training.

The presentation by Angela Mallett and the students from the Shepherd School, along with Dr David Brown of Nottingham Trent University, described the 'Virtual Greenwood Growers', a horticultural VR trainer, again with the emphasis on health and safety training. It was impossible to enter the nursery without donning the correct safety clothing. This barrier was cited as an advantage which would be hard to duplicate in the real world. The identification of the correct tools for the job and of the chemicals associated with the horticultural world also featured as part of the program.

In the area of lifeskills, the virtual courtroom was demonstrated. This was used as both a general training tool and a means to prepare people with learning disabilities for attendance at court. The program presented a courtroom interior and the people to be found there. The legal personnel, when 'questioned', explained their roles in court. An 'embedded video' within the program also showed examples of people giving evidence.

Using VR to assess and improve localisation and tracking skills in children who are blind was demonstrated by Dr Dean P. Imman from the Oregon Research Institute. The key advantage that emerged from his presentation was the ability of VR to manipulate an environment. Children with significant sight difficulties have trouble distinguishing one noise from another, for example in order to localise a car. The ability of VR to reduce the background noise, to highlight the significant noise, and then slowly to reintroduce the background noise to real-world levels was seen as one of the major advantages of VR.

In summary, the main advantages of using VR initially rather than 'rushing straight to the kitchen' are the ability of VR to simulate health and safety situations, the ability of VR to manipulate an environment and the possibility of simulating otherwise inaccessible workplace locations. The one message running through all the papers presented was that VR augments real-world training; it does not replace it.

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