Using Virtual Reality Technology to Help Individuals With Disabilities Transition Back Into the Community

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The Virtual Reality Model Access Project (VR-MAP) plans to design and develop a prototype for the application of virtual reality technology to the enhancement of the social self-sufficiency of individuals with physical disabilities. VR-MAP will utilize Quick Time Virtual Reality software to create virtual experiences that can be computer accessed through a web page on the Internet or through provision of free CD-ROMs. The prototype created for this project will consist of 20 sites placed into virtual environments. Using the computer mouse or an adaptive device, individuals will be able to “navigate” through the various environments or access “hot spots” indicating each photographic scene. Annotations about access issues will be provided for each site. Head-mounted displays (HMD), hardware similar to goggles with small computer screens, will be available to provide individuals with an immersive experience. A “head tracking” feature on the HMD allows the user to look at a scene by simply moving the head, and when realistic audio is added, the user can be provided with an experience that simulates reality.

In order to use this prototype to assist individuals with physical disabilities integrate into society, certified therapeutic recreation specialists will be trained to access the technology. As hospital lengths of stay become shorter, helping clients ease back into society “virtually” might be a viable addition to traditional therapeutic approaches which seek to maximize self-sufficiency. By enhancing social self-sufficiency of individuals with physical disabilities, it is anticipated that carry-over into employment, independent living, family support, and economic independence will occur.