Summary 1:

Evaluation of airflow effect on a VR walk

Multisensory information is important to augment the sensation and perception of immersion in a VR environment. Although airflow had been used in simulated environments to increase the perception of self-motion, its relationship with self-motion perception had not been clearly explained. The sensation of walking and the intensities of wind blowing against the skin were measured for when only airflow was provided and when other sensory information was provided with it. Four patterns were observed (airflow, airflow and vestibular (motion chair), airflow and optic flow, and airflow, vestibular, and optic). The patterns were presented in a random order during a session and 2 sessions were preformed at different walking speeds (0.9 and 1.84 m/s). Users were asked to rate the intensity of walking sensation and skin sensation from the airflow. Results showed that the sensation of walking increased with the introduction of more sensory information but not with higher simulated speeds. The combination of airflow, vestibular, and optic had the strongest sensation of walking although it is still only the sensation of around half of a real walk. The airflow against the skin was also larger than in real walking.

BibTeX:

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