

Interface Technologies

Summary & Main Findings



There have been many advances in Interface Technologies in the 21st Century. This includes displays such as the “interactive whiteboard”. Systems such as these connect a display board, computer and projector; to enable the user to control the computer by pointing a device such as a pen or a finger, at the display board. VEPs partners have investigated the potential of these technologies for displaying Virtual Environments, to see if they can help stakeholders engage in the public planning process.

Virtual reality interface technologies such as the interactive whiteboard (e.g. eBeam™) have been used in a variety of different locations, from community cafés, offices and even a former Ministry of Defence Air Force base. The research team found that each location offered a variety of challenges for the installation of the interactive whiteboard/eBeam. This included checking for light interference, power access, heating & ventilation (if in a small room) as well as accessibility for flight cased equipment and set-up time.

Overall, it was felt that eBeam lived up to the features claimed by the manufacturers i.e. that it offers a low weight, low cost alternative to the

traditional Interactive Whiteboard. eBeam’s navigation system is intuitive to use and its oversized “pen” input device makes it accessible to almost all members of the public.

In spite of the many advantages of using eBeam, there were concerns, such as people casting shadows over the interactive area or disturbing the projector causing the device to require recalibration. However it was concluded that the benefits significantly outweigh the concerns.

Currently, high quality virtual reality display systems are relatively expensive to purchase, plus staff must be trained to maintain and operate them. Due to these cost considerations, the systems are not financially viable for use at small-scale consultations, but are ideal for use at larger gatherings where the additional costs of set-up and hire are outweighed by the size of the audience.

Other techniques developed for working individually and in small groups include augmented reality, Virtual Reality Workbench and more recently, touch-tables. These devices are currently being used in research labs, but show promise for use more widely as the technology improves and the prices fall.

It is expected that the extensive and positive experience of using these interface technologies will strengthen the capacity for building a better place to live, work and invest in, which is addressed as the overall aim of the INTERREG IVB Programme.

Further information

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