A computer mouse steered with the mouth

Austria – LIFetool: IntegraMouse 3

SUMMARY OF PROJECT

IntegraMouse, initiated by the Austrian non-profit enterprise LIFetool, is a wireless computer mouse that can be operated with the human mouth for people who are unable to use their hands and fingers. LIFetool develops a variety of pedagogical software, and offers free training on the use of the IntegraMouse and other assistive devices.

"IntegraMouse has changed my life."

Prof. Sang-Mook Lee, Teacher, National University of Seoul

FACTS & FIGURES

- About 2,000 of the IntegraMouse have been produced.
- The device has been sold in more than 40 countries.
- Revenue to date is approximately 2 million Euros.

PROBLEMS TARGETED

Since the development of the first personal computers most of the technological developments and solutions regarding PCs have been produced without regard to the needs of people with disabilities, for example, keyboards for people who do not have the use of their hands. Even though there is now a market for assistive devices, people who are not able to use their hands and fingers are still in need of an alternative computer mouse, especially because none of the existing solutions is wireless, which is important to increase the mobility of people in a wheelchair.

SOLUTION & METHODOLOGY

With the IntegraMouse a computer can be operated with the use of one’s mouth, whereby minimal movements of the lips are enough to move a cursor. The IntegraMouse was developed for people with paraplegia, myasthenia, motoric nerve diseases, and amputations and is seen as a full-value replacement for a conventional computer mouse. The cursor on the screen is moved through the mouthpiece, which
can only be navigated with the lips. A left or right click can be triggered by blow and suck. All the functions of the computer mouse can be operated through the mouth; and the IntegraMouse can also be used as a joystick to play computer games.

In addition to the initial target audience, the next generation IntegraMouse will focus on game players, e.g., people with special needs who play games on mobile devices, personal computers, or game consoles. The functions of the IntegraMouse will be enhanced with an integrated microphone with voice recognition software as well as with comprehensive gaming functions. The implementation of an interface for mobile devices is also planned. Future users of the IntegraMouse will be involved in the development process from the beginning, and creative workshops will be conducted during the start-up phase of the project.

**Outlook & Transferability**

LIFEnovel has a marketing network in 40 countries worldwide, which means that the IntegraMouse can be offered throughout the whole world via local stores. In the rest of 2015 and in 2016, LIFEnovel wants to prepare the market launch of another technological solution that was developed for rehabilitation purposes, further develop the IntegraMouse3, expand the consultation network for people with special needs, and conduct research and development projects with a focus on user evaluation.
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