

IMPERTIO: An Efficient Communication Interface for Cerebral Palsy Patients

Authors : M. Zaïgouche, A. Kouvahe, F. Stefanelli

Abstract : IMPERTIO is a high technology based project aiming at offering efficient assistance help in communication for persons affected by Cerebral Palsy. The systems currently available are hardly used by these patients who are not satisfied by ergonomics and response time. The project rests upon the concept that, opposite to usual master-slave communication giving power to the entity with larger range of possibilities, providing conversely the mastery to the entity with smaller range of possibilities will allow a better understanding ground for both parties. Entirely customizable, the application developed from this idea gives full freedom to the user. Through pictograms (one button linked to a word or a sentence) and adapted keyboard, noticeable improvements are brought to the response time and ease to use ergonomics.

Keywords : cerebral palsy, master-slave relation, communication interface, virtual keyboard, word construction algorithm

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