R. Raya, D. Torricelli, E. Rocon, R. Ceres, A. Frizera, J.L. Pons. Feasibility in human machine interfaces for elderly people. Gerontechnology 2008; 7(2):193. One of the main challenges of social policy in European Union is to promote the autonomy of elderly and disabled people. According to the estimates of the United Nation Population Division, the class of elderly people will constitute 36% of the global population in 2050, what would represent an increase of approximately 10% respect to the present. The median age will increase to 47 years. In this scenario, Italy and Spain will presumably lead the trend, representing the two main countries with the most intense increase of seniority: considering one elderly person per ten working-age people, elderly people will respectively grow up to 6.6 and 6.8, in respect to the present values of 2.5 and 2.9[1-3]. Ideally, getting a job or education and moving freely are activities everybody should be able to do. In this sense, public investments are growing. Advances in assistive technology and rehabilitation context are producing an improvement in the quality of life of disabled people. However, the effectiveness of assistive and rehabilitation devices is often limited by the human machine interface. For this reason, this paper proposes a review of specific interfaces for such devices, identifying the keys for its design[4]. **Methods** In order to assess different interfaces, a classification is considered necessary. Addressing to assistive devices, interaction between the two actors is the main issue and this can be divided into: (i) *Mechanical*. The interaction takes place by movement of both parts; (ii) *Biometric*. The machine interacts with the body by measuring biological signals; (iii) *Human expressions*. Set of signs defining a language. Mechanical interfaces are the most conventional, e.g. a joystick or a mouse. These are used for common applications but in some cases adaptations for disabled people can be found. Biometric is a field where numerous efforts are made. Electromyography (EMG), Electrooculography (EOG) and electroencephalography (EEG) are techniques which measure electrical activity produced by muscles, corneal-retina and brain respectively. The information obtained from these signals is used in order to infer intentions of the users and create the interface. Finally, the last group describes all techniques which obtain intentions of the user from human expressions such as voice, gestures or postures. Voice recognition, eye tracking are methods widely studied offering more reliability and introducing new concepts of interfaces. **Results and discussion** The ISO 9241 standard defines three components of quality of use applicable to the design of Human Machine Interface, effectiveness, efficiency and satisfaction. According to these factors, the success of the interface in the concrete application can be evaluated. This work will expose the assistive devices considered successful in literature in order to detect the key factors for an appropriate design of a human machine interface.

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