

Chapter 18

Projects from the Orange Foundation in Favour of People with Obstacles to Communication

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INTRODUCTION

“The spoken word is a mighty lord, and for all that it is insubstantial and imperceptible it has superhuman effects. It can put an end to fear, do away with distress, generate happiness, and increase pity”. These lines from Gorgias, one of Plato’s dialogues, sum up the power of the word, considered as one of the main vehicles (although it is important to emphasise that it is not the only one) through which people can transmit their thoughts, and communicate with each other. In fact, it could even be affirmed that the truly essential factor is

not even the spoken word, but instead the power of the individual to contact their equals, sharing their ‘inner world’, their ideas and their needs, in order to feel part of a collective and to express themselves.

However, there are several groups of people with obstacles to communication who have greater difficulties both in using the spoken word, and in finding alternative communication systems that allow them to connect with others on an equal footing. This tends to lead to a feeling of isolation and frustration, as well as the impossibility of becoming integrated into society.

DOI: 10.4018/978-1-60566-206-0.ch018

Being sensitive to this problem, the Orange foundation focuses its efforts, although not exclusively¹, on promoting communication by these social groups, fostering the creation of links between people through a series of tools that make communication possible, resorting to alternative methods when necessary, adapting the type of language to the needs of people with functional diversity. An example is the use of pictograms, which have proved to be useful for people with Autism Spectrum Disorders (ASD).

Also, the Orange Foundation especially values technological projects that offer interesting and novel solutions for people suffering from exclusion as a result of congenital or acquired disabilities. With this aim in mind, the Orange Foundation supports applied research, promoting innovative Research and Development projects, and frequently working with universities on applied research products, with the firm belief, in the words of Johan Wolfgang Goethe, that “Knowing is not enough; we must apply. Willing is not enough; we must do.”

Furthermore, in order to ensure the usability of the projects from the Orange Foundation, the testing of results is essential, from the design stage onwards. The Orange Foundation firmly believes that the close collaboration between the target group and the team experimenting on the different prototypes ensures that the definitive development of the project responds to the user’s needs.

Specifically, the Orange Foundation, created in 1998, promotes projects aimed at improving the quality of life of people with different types of disability. However, after its integration in the France Télécom Group in 2005, the work of the Foundation has become increasingly focused on six clearly defined areas in line with the work of the group’s foundations in different parts of the world: autism spectrum disorders, visual disabilities, hearing disabilities, the fight against illiteracy, the education of girls in developing countries, and vocal music.

With this approach in mind, we will now present some of the projects of the Orange Foundation, organised under the following headings: 1) Visual technologies for visual thinkers: projects aimed at people with autism; and 2) Communicating, learning and playing with technology: projects aimed at reducing the digital divide.

VISUAL TECHNOLOGIES FOR VISUAL THINKERS: PROJECTS AIMED AT PEOPLE WITH AUTISM

The world of autism is complex, and a good way of understanding it might be to listen to the words of people with autism spectrum disorders who have been able to describe their inner world, such as Temple Grandin, a professor of animal science at an American university, who has Asperger’s Syndrome. “I think in images. Words for me are like a second language. I translate spoken and written words into colour films, with a soundtrack and everything, which pass through my head like a videotape. When someone talks to me, their words are immediately translated into images.”

A number of scientific studies² have confirmed that people with ASD activate especially those areas of the brain that evoke visual and spatial images, which causes difficulties in conceptualising abstract ideas. Therefore, the methods that are most widely used today with people with autism are also highly visual, such as the TEACCH Programme and the PECS (Picture Exchange Communication System).

In this case, at the end of 2006 the Orange Foundation and the Autism and Learning Difficulties Group of the Robotics Institute of the University of Valencia, Spain, began to collaborate in order to design a series of technological solutions that could be of use for people with ASD, through the following projects:

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