CHALLENGES WORKSHOP

8.30-9.15 am Opening: Jeffrey L. Newton - MIT Vice President, Andrea Bocelli, Authorities

Chair: L. Giarré, ABF Advisory Board and Università di Palermo

09:30-10.10 am "MIT Fifth Sense project"- S. TELLER, MIT, US, and Coworkers

10:10-10:30 am Coffee break

Assistive technologies

10.30-10:50 am "Computer vision - based assistive technology for the visually impaired"- J. COUGHLAN, Smith Kettlewell Eye Research Institute, US

10:50-11:10 am "Social sense making for the visually impaired" - M. PELILLO, Università di Venezia, IT

Neuroscience

11:10-11:30 am "Retinal prosthesis for the blind"- S. WEILAND, Doheny Retina Institute, University of Southern California, US

11:30-11:50 am "What do the eye and the hand tell us about the brain, and how this can be useful to people"- A.BICCHI*^, P. Pietrini*, E. Ricciardi*,

M. Santello^^ (*Università di Pisa, IT ^Istituto Italiano di Tecnologia, IT ^^Arizona State University, US)

Vision

11:50-12:10 am "Blind vision: perceptual and cognitive functioning in the blind"- Z. CATTANEO, Università di Milano-Bicocca, IT

12:10-12:30 pm "(Computer) Vision without sight"- R.MANDUCHI, University of California at Santa Cruz, US

12:30-1:50 pm Lunch and Exhibitions

Vision

Chair: S. Teller, MIT

1:50-2:10 pm "Interactive crowd powered access technology"- J. BIGHAM, Carnegie Mellon University, Human Computer Interaction Institute, US

2:10-2:30 pm "How visual cortex works: improving machine vision tools for the visually impaired"- T. POGGIO, MIT, US

Games and Children

2:30-2:50 pm "Learning to see late in life" - P. SINHA, MIT, US

2:50-3:10 pm "Educational game software for blind children" - L. MERABET, Harvard University, US

Assistive Technology

3:10-3:30 pm "3D tactile models from paintings: an assessment of possible computer aided methodologies" - L. GOVERNI, Università di Firenze, IT

3:30- 3:50 pm "Design for user empowerment: creating blind scientists and engineers"- R. LADNER, Washington University, US

3.50-4.10 pm "The museum of pure form"- M.BERGAMASCO, Scuola Superiore Sant'Anna, Pisa, IT

4:10-4:30 pm Coffee break

4:30-5:00 pm PANEL DISCUSSION

Chair: M. Dahleh, MIT

"Find a new understanding of the complex challenge of enabling visually impaired people in getting and achieving a better autonomous life

via a multidisciplinary approach"

5:00 - 5:10 pm Closing: L. BIANCALANI, Andrea Bocelli Foundation President