

Mirrorable, a new ecosystem for motor rehabilitation

Francesca Fedeli

www.fightthestroke.org









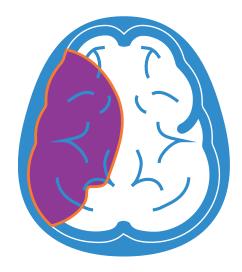




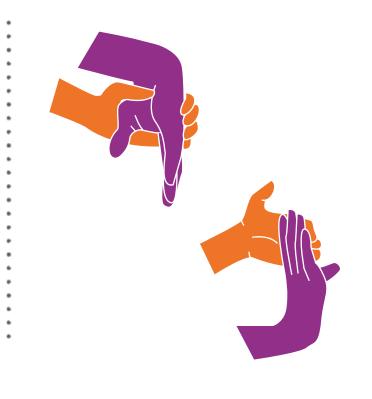


THE MOVING NEED





The stroke 23/01/2011



Current rehab proposals:

- 1. No evidence based
- 2. No saliency for the patient
- 3. No goal directed
- 4. No targeting the whole family
- 5. Late discovery → late intervention
- 6. Extensive
- 7. No peer learning
- 8. No availability out of the hospital
- 9. No data gathering = no relevance for science

10. Not effective







MIRRORABLE ONLINE PLATFORM











1. Mirroring with the master

2. Motor imagery

3. Mirroring oneself, practicing+ reinforcement learning

4. Mirroring with the best emotion-based video pal

Intensive early learning, ecological, home-based, proven approach

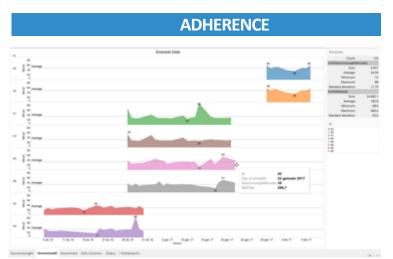
Proprietary empathy and motor matching API

Cloud architecture for data insights and AI/machine learning

MIRRORABLE ONLINE KPI









Sept 2016	Oct-Dic 2016	Jan-April 2017	May 2017-2018
Design	Development	Pilot	Results analysed and published
>50 kids enrolled, 20 families tested, 0 drop out, 280 therapies, 169h of analysed data (video, emotions, motor), 100% thinks it's easy to use			 +26% motor perf. 100% adherence +10% PAM +50% costs saving

Efficacy of a home-based platform for child-to-child interaction on hand motor function in unilateral cerebral palsy

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ABBREVIATIONS

AOT Action observation treatment

FMA Fugl-Meyer Assessment

Fugl-Meyer Assessment for FMA-UE

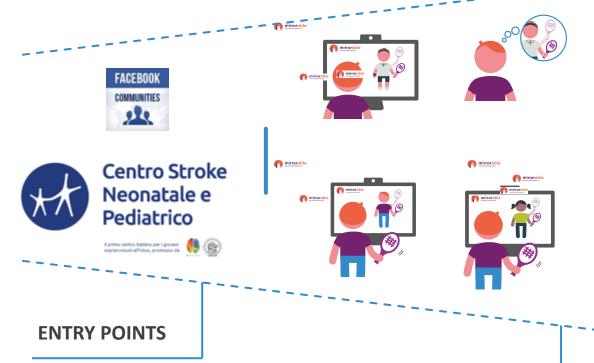
upper extremity

AIM To evaluate the feasibility and effectiveness of an action observation treatment (AOT) home-based platform promoting child-to-child interaction to improve hand motor function in unilateral cerebral palsy (CP).

METHOD Twenty children (14 males, six females; mean age 6y 7mo, standard deviation 1y 7mo; range 5y 1mo-10y 6mo) with unilateral CP underwent 20 sessions where they had to observe and then imitate a wizard performing dexterity-demanding magic tricks; a child-to-child live video-session to practise the same exercise then took place. We assessed hand-motor skill the Besta Scale, neurological motor impairment with Fugl-Meyer Assessment for upper extremity, as well as spasticity, muscle strength, visual analogue scale, and global impression

THE NEW ECOSYSTEM







INTENSIVE HOME THERAPY

CONTINUOUS LEARNING
THROUGH THE MIRRORABLE
ECOSYSTEM



Thank you for staying in touch.

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