

MUTUAL INVOLVEMENT for inclusive practices in design

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Who am I?

We define ourselves by what we do.

Who is she/he?

We tend to reduce others to
what they are not capable of doing,
thus at times making wrong assumptions.

MÁRIO

riding a bike, running on the
train rails and washing castles of dishes

BINA

playing basketball and handball,
ballroom dancing and traveling with friends

LAURA

crochet, sitting on the esplanade
to enjoy a coffee and to talk with friends

SUSANA

traveling the world by air with her boyfriend
(facing similar obstacles) and driving

SÂNCIO

preparing and serving
breakfast and snacks in a bar

ANA

traveling alone to know different cultures and scaling
castle walls to enjoy sceneries from above

Challenge

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CEREBRAL PALSY

BLINDNESS

PARAPLEGIA

TETRAPLEGIA

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CEREBRAL PALSY

BLINDNESS

PARAPLEGIA

TETRAPLEGIA

Common misconceptions

- # The blind person cannot see
- # The paraplegic cannot move the legs
- # The tetraplegic cannot move the 4 limbs
- # The person with cerebral palsy has a cognitive disorder
- # Sign language is a direct translation from the verbal/written language

... can lead to inappropriate actions

"I got to the airport and the staff insisted on accommodating me on a wheelchair. I'm blind but I have legs!"

"People see me in a wheelchair and start talking to me very loudly as if my limitations are not only mobility related"

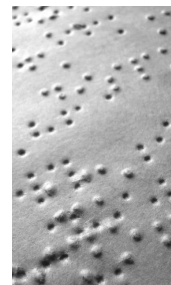
Especially for those people whose first language is sign language, reading can be a very challenging task.

... including in design

"(...) groping at all products at the supermarket? Braille on packaging is useful at home when I want to know if the can is sardine or tuna!"

"(...) when designing for blind people, projects often exclusively refer to touch. I enjoy using my residual vision and I have other senses too."

"(...) I do not know who calls that an accessible toilet bowl? My legs always get stuck in that cut when I'm trying to transfer!"



Why involve users?

to understand

- “ **diversity**
- “ how the person
does, thinks and feels differently

Julia Cassim

user involvement
is a **safeguard** for **better efficiency**
and **satisfaction**

... however it is

time consuming

... however it is

time consuming
complex

... however it has

time consuming
complex
communication challenges

... however it has

time consuming
complex
communication challenges
organizational difficulties

hinders in user involvement

time consuming
complex
communication challenges
organizational difficulties

overall

hinders in user involvement

time consuming
complex
communication challenges
organizational difficulties

overall

involving people with disabilities

arguments for user involvement

involving people with disabilities

social sustainability

inventiveness

Case studies

1. "Inclusive Design Challenge"
2. Participatory experience
3. Usability testing
4. Accessibility to exhibition content
and heritage experiences

Case 1



24 hours INCLUSIVE DESIGN CHALLENGE (Gaia and Lisboa)

Organization

Design Includes You & British Council (Portugal)

Coordination

Julia Cassim

Helen Hamlyn Centre for Design, Royal College of Art



DESIGN
INCLUDES
YOU







“ Interventions on tourism and heritage experiences

Case 1 - reflections

- # Highly implementable design interventions
- # Raising awareness on disability issues among participants
- # Initial difficulties in recruiting designer partners
- # Motivation for future collaborations
- # Beginning of network-building



Case 2

30 months PARTICIPATORY EXPERIENCE

Implementation
Cecilia Peixoto Carvalho
Industrial Design master student, FEUP

Collaboration
Basketball and Handball in wheelchair team
APD Porto (Portuguese Association of Disabled)



Case 2

- “ Exploratory/experimental research
- “ Active participation with people with mobility impairments in sports activities



- “ active participation > affective engagement > effective involvement
- “ adapted sport > inclusive practice
- “ sports practices > conviviality and social growth

Case 2 - reflections

- # Involvement process:
 - trust building
 - more open and less constrained communication
 - deeper understanding of the person
- # Improvement:
 - requirements specification and prioritization
 - ideas testing and validation
 - work group building
- # High probability for future collaborations

Case 3



3-month USABILITY TESTING

Implementation

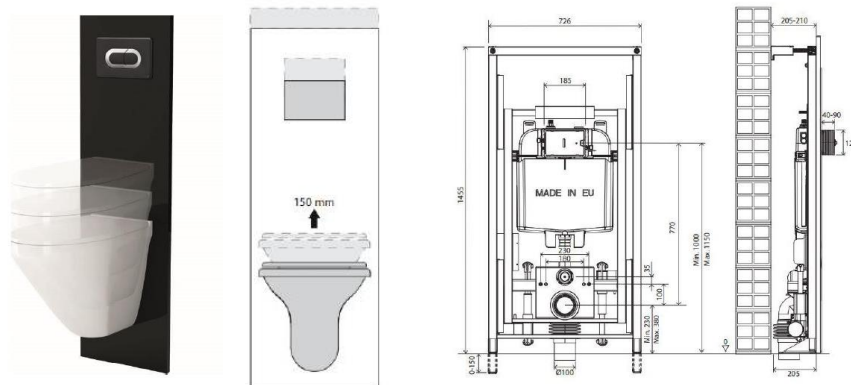
OLI (industry), **CRPG** (rehabilitation) and
FEUP (academy), **DIY** (inclusive design research)

Collaboration

**people with mobility impairments in functional
 and/or professional rehabilitation**



Case 3



- “ Protocol signed between institutions
- “ Test a mechanical system with adjustable height



- “ People and caregivers that assist people in the bathroom were initially consulted
- “ Prototype was installed in the most frequently used bathroom



- “ Defining people’s difficulties using the toilet bowl
- “ Evaluating product gains and setting possibilities for improvement

Case 3

- “ Protocol does not control the right to individual privacy
- “ There was initial resistance in disclosing personal information

Case 3

- “ Trust was the decisive factor in changing people's attitude
- “ 3-5 people experigroup sessions *in loco*

Case 3 - reflections

Trust:

- important factor for the success of this study
- worked directly and indirectly

Data gathering:

- authorized video recordings gave a broader understanding
- people were motivated to continue
- some users gave access to their home bathrooms for research

Playful methods of involvement are highly effective



Case 4

**ACCESSIBILITY TO EXHIBITION CONTENT
AND HERITAGE EXPERIENCES**

Research
Design Includes You for **Lisbon City Council**

Collaboration
people with disabilities and
design and museology researchers

DESIGN
INCLUDES
YOU

 Câmara Municipal
Lisboa



“ Guidelines for inclusive experiences in museums and heritage site

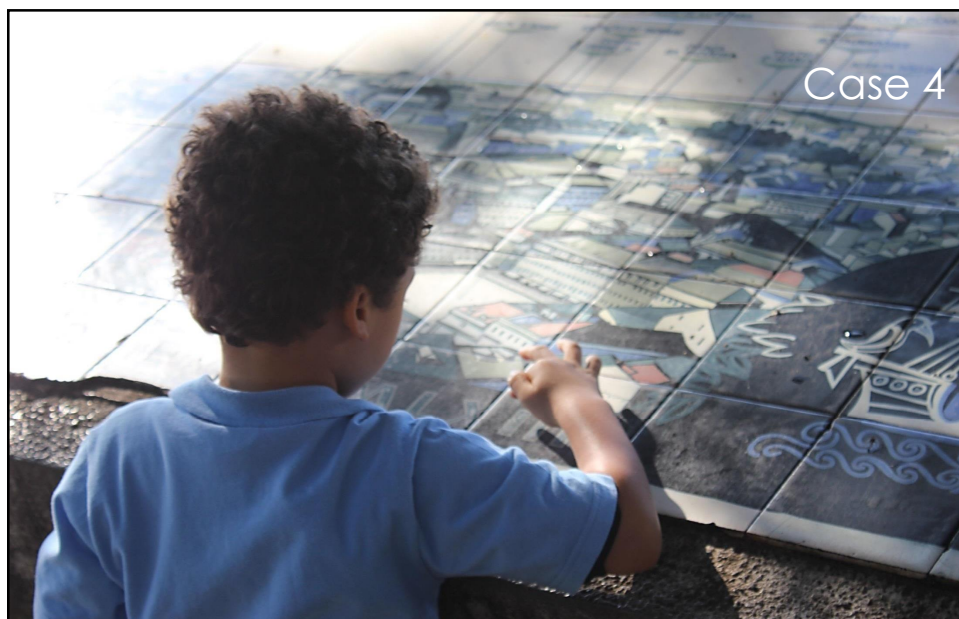


“ Participants representative of visual, hearing, physical and cognitive disabilities

“ Experiences *in loco* followed by focus groups



- “ Involvement of families
- “ Conciliate autonomy and shared experiences



- “ Multimodal and multisensorial experiences for transversal needs

Case 4 - reflections

- # Recognition of past projects regarding accessibility and inclusion of people with disabilities
- # Throughout the involvement process:
 - family, friends and group experiences contributed to initial motivation
 - hands-on experiences held motivation
 - group approaches led to a variety of perspectives
- # Broadening network within users and designers sustains future collaborations



**The task is timely and sustainable,
not one or the other.**

Martin Stewart-Weeks

Time & organizational issues

Complexity

**"mutuality is constitutive and
not the product of the intentional
act of communication"**

João Pina-Cabral

Communication

Involve and be involved

Thank you!

Obrigada!

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