Voices that Matter:

An Exploratory Study on Technology Preferences and
Challenges Among People with Intellectual Disabilities

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Purpose of the Research

- Explorative research in a **day centre** in Italy
- **Challenges**, **preferences** and technology **use** from **individuals with intellectual disabilities (clients)**
- **Opinions** and **influence** on clients' technology use from **educators**

Research Questions

For **individuals with intellectual disabilities (clients)**
RQ1. What is clients' current use of technology?

For **educators**
RQ2. What are educators' perspectives on the clients' use of technology?
RQ3. How do educators integrate technology into their own work practices within the day centre?

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But...

What is Intellectual Disability?

Intellectual Disability (1 of 2)

Intellectual disability refers to neurodevelopmental conditions that affect functioning in two areas:

- **Cognitive** functioning, such as **learning**, problem solving and **judgement**
- **Adaptive** functioning, activities of daily life such as **communication skills** and **social participation**

[American Psychological Association (APA), psychiatry.org]

Intellectual Disability (2 of 2)

Implications

- Impact on daily life (social and practical skills)
- Non generalisable condition

Comorbidities

- Visual, speech, hearing and mobility impairments
- Autism spectrum, Down syndrome and Epilepsy
- Varying levels of reading skills
- Non-verbality

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And…

Why include Educators?

Educators

Professional Figure

- University degree
- Develop educational plan

Impact

- Personal preferences regarding technology use can have an impact on use by clients

Methodology

Semi-Structured Interview

1 Week in a day centre in Trieste, Italy

12 Individuals with intellectual disabilities (clients)

9 Educators

Implications

Challenges in Accessibility

- High **costs**
- **Dexterity** (gestures, scrolling, tapping)
- **Complex passages** to complete actions (nested accessibility settings)
- **Information accessibility** (content, text-to-speech, plain language, Augmentative and Alternative Communication - AAC)
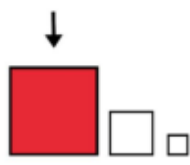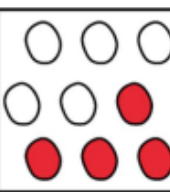
Example Plain Language and AAC

Regular Language

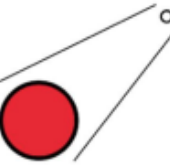The Nile crocodile is a very big crocodile that lives in some parts of Africa, typically near rivers and lakes. The Nile crocodile is carnivorous.

Plain Language

The Nile crocodile is a very big type of crocodile.
The Nile crocodile lives in some parts of Africa near rivers and lakes.
The crocodile eats meat.
This means it is a carnivore.

Training

- Need for **more structured training** (existing accessible alternatives, device use)
- Expand and support learning through **dyadic approach** (educator-client, peer-peer)
- Potential use of technology to **acquire other life skills**

Empowerment (1 of 2)

- Promote **social inclusion** and overcome stigma
- Need for **entertainment** and games to **reflect** correctly **age** and **dignity**
- Exercise the possibility to **choose** independently

Empowerment (2 of 2)

" If I have to write in a hurry, I make an audio.
But if I'm at home and I have time to write, I also like to write.
I don't want to lose the ability I have [to write] " - C12

Conclusion

Conclusion

- Need **more accessible** solutions to **better include** individuals with intellectual disabilities in technology use

- Enhance **technology use training** for both clients and educators in day centre settings with potentiality in acquiring other **life skills**

- Provide **multiple** accessible **solutions**, to encourage individual preferences

Future Work

Future Work

- Include **more participants** and other relevant parties (caregivers, family, friends)
- **Workshops** or training classes to **share knowledge** of accessible solutions
- **Longitudinal study** to understand the change of use in time
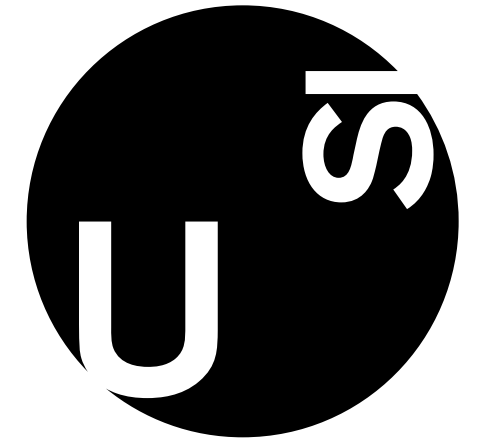
Thank you!

Questions?

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