ENRICH Project

Enhancing the Digital Inclusivity of Cultural and Natural Heritage

That's not inclusive at all

GOAL?

ENRICH is a collaborative research project between the 'Gabriele d'Annunzio' University of Chieti-Pescara (Italy), the University of Oviedo (Spain), and the University of Skövde (Sweden) that works on creating and testing innovative frameworks and models to improve digital accessibility at cultural and natural heritage sites. In addition to ensure that all visitors, without exception, can access and enjoy these sites.

WHO?

The **Italian team (UdA- Department of Architecture)** Emilio Rossi, Sarah Jane Cipressi, Rosita Marchetti, Francesca Caramanico, Erika Ferrara, Cristina Iacobucci, Cecilia Molon, Ester Tagliafierro
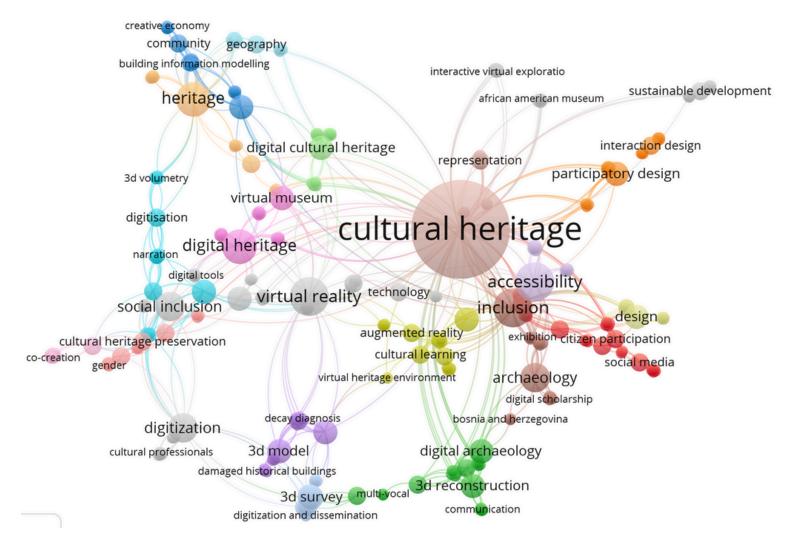
They develop a **scalable, interdisciplinary framework.**

Starting point:
Barriers are sometimes opportunities for designers to innovate

Good Design ENABLES

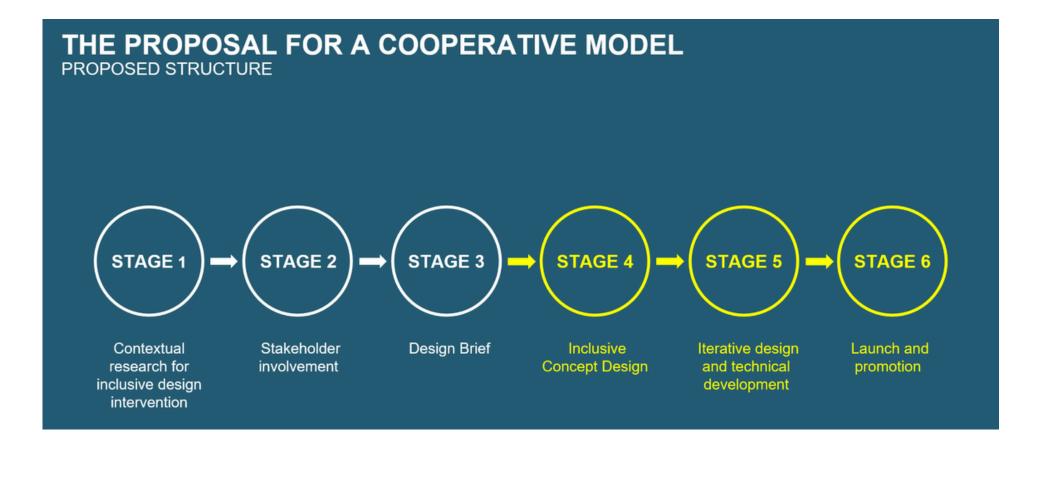AIM: to follow the EDI principles (equity, diversity and inclusion)

Keyword analysis through Co-occurrence Network

What did they find?   **OPORTUNITY**

Lack of holistic design guidelines (approaches + user involvement + design + promotion).

THE PROPOSAL FOR A COOPERATIVE MODEL
PROPOSED STRUCTURE

STAGE 1 — Contextual research for inclusive design intervention
STAGE 2 — Stakeholder involvement
STAGE 3 — Design Brief
STAGE 4 — Inclusive Concept Design
STAGE 5 — Iterative design and technical development
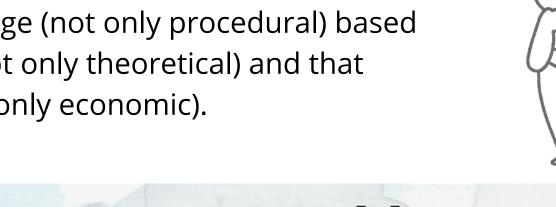STAGE 6 — Launch and promotion

---

The **Spanish team (MediaLab - UNIOVI)** Ramón Rubio, Inés Fombella, Beatriz Rayón, Silvia Gonzalez, Lucía Rodríguez, Duna Martinez & Miguel Naredo.
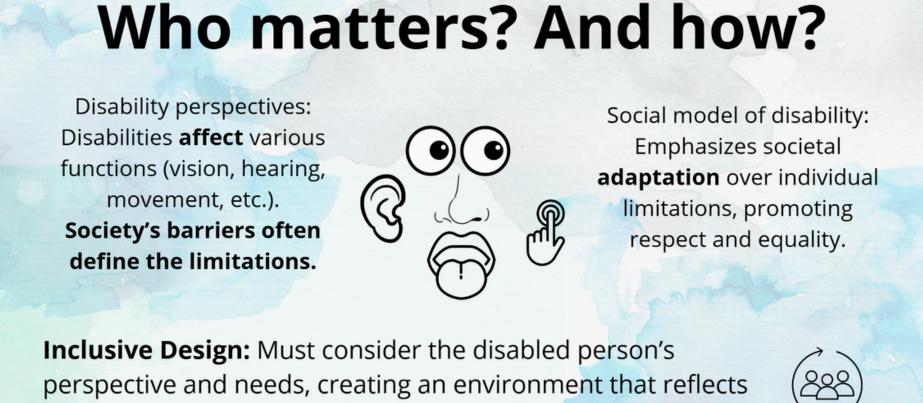
They make **digital 3D models** and manufactures them along community engagement.

Starting point:
Inclusivity is any change (not only procedural) based on understanding (not only theoretical) and that generates value (not only economic).

Who matters? And how?

Disability perspectives: Disabilities **affect** various functions (vision, hearing, movement, etc.). **Society's barriers often define the limitations.**

Social model of disability: Emphasizes societal **adaptation** over individual limitations, promoting respect and equality.

Inclusive Design: Must consider the disabled person's perspective and needs, creating an environment that reflects their abilities rather than adhering to "able-bodied" standards.

Implementing 3D solutions for everyone in a museum   **HOW?**

1 Scan heritage with photogrammetry
- Take a Drone
- Fly it around a Hórreo
- Take around 100 pictures

2 Digitally reconstruct the Hórreo

3 And print it!

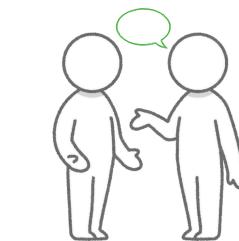
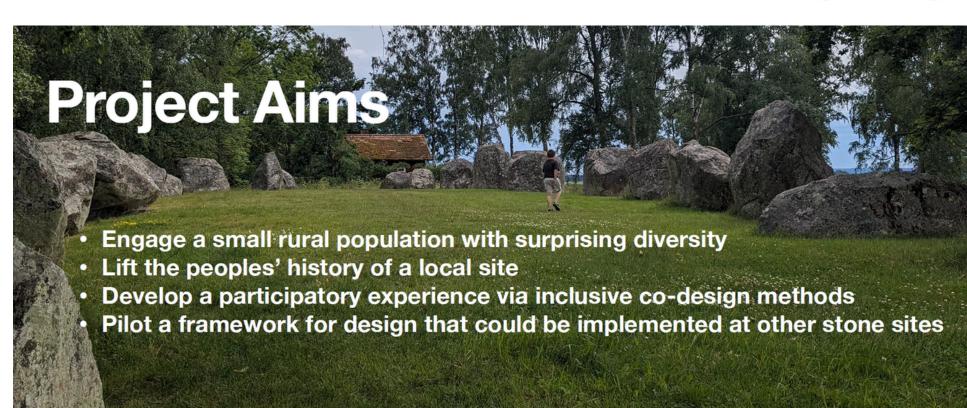The **Swedish team (HIS - PlayLab)** Rebecca Rouse, Lars Kristensen, Dawn Xiaoqing & Jamie Fawcus.

They work on **making cultural heritage more engaging, interactive and immersive** through digital storytelling, extended reality, videogames and audience-driven design.
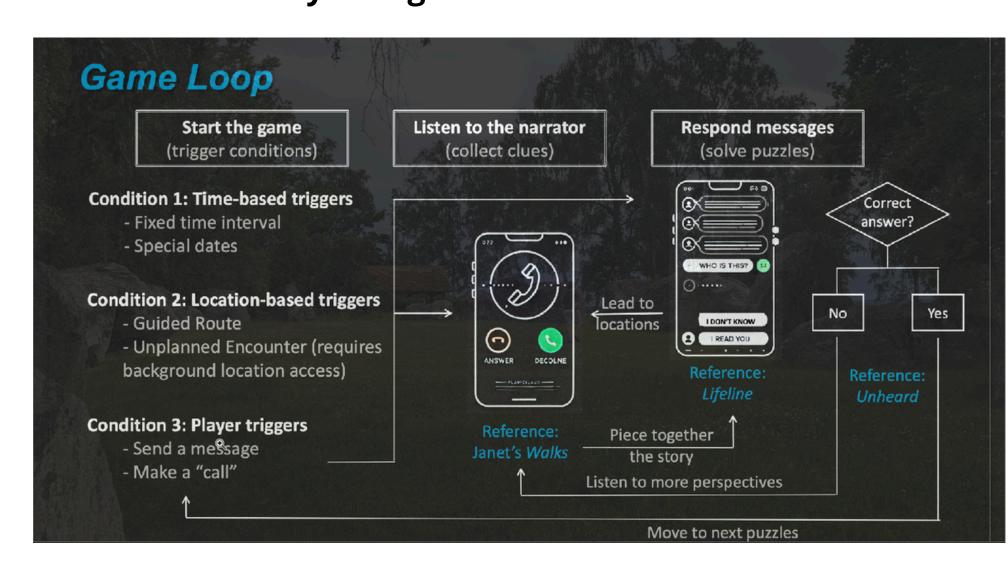
Starting point:
Storytelling enhances accessibility and engagement by creating immersive, narrative-driven experiences for cultural heritage sites.

Project Aims

- Engage a small rural population with surprising diversity
- Lift the peoples' history of a local site
- Develop a participatory experience via inclusive co-design methods
- Pilot a framework for design that could be implemented at other stone sites

Audio-Based Storytelling Game

Game Loop

Start the game (trigger conditions)
Listen to the narrator (collect clues)
Respond messages (solve puzzles)

Condition 1: Time-based triggers
- Fixed time interval
- Special dates

Condition 2: Location-based triggers
- Guided Route
- Unplanned Encounter (requires background location access)

Condition 3: Player triggers
- Send a message
- Make a "call"

Reference: Janet's Walks
Reference: Lifeline
Reference: Unheard

Lead to locations
Piece together the story
Listen to more perspectives

Correct answer? No / Yes
Move to next puzzles

By blending community **stories**, interactive **audio**, and engaging game **design**, this initiative can create a powerful, inclusive experience that strengthens the connection between people, place, and history.

Project Phases

1. Initial community engagement via local historical society and stones' steering group
2. Needs assessment and knowledge exchange with these two groups of elders
3. Initial audio recording
4. Further concept development for the participatory experience design
5. Widen the participation to include youths and migrants
6. Execute needs assessment and knowledge exchange processes again
7. Further concept development for the participatory experience design
8. Co-working production phase with whole community
9. Work toward a public prototype presentation in late Spring

---

And we also work IRL

In Skövde

In Gijón

NEXT ➡ Pescara

University of Skövde (Sweden)
University of Oviedo (Spain)
"Gabriele d'Annunzio" University of Chieti-Pescara

VALUES

Design for all   Co-design