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Material Encounters with digital Cultural Heritage

Reflection on the role of co-design in a large-scale international collaboration

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Outline

- The meSch project
- The role of co-design in meSch
  - Co-design workshops
  - Exploratory labs
  - Case studies
  - Authoring feasts
- The meSch outcomes
- Reflection on the co-design process

My journey

- BSc in Cybernetics (1981)
- Career in software development
- PhD focusing on the Evaluation of Information Systems in 2001 (Bucharest, RO)
- **How do people learn/know/share in communities?**
- Software Engineering, Open Source, Global Software Development (2003-2008)
- Social Media, Communities, Location-Based Social Media (2008-2010)
- Civic engagement, DIY, Community gardens, biodiversity (2010-2013)
- Cultural Heritage (2013-2017)
- Collaborative Economy (2017-2021)

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12 partners co-creating tools and applications

Universität Stuttgart

Sheffield Hallam University

designfutures

Allard Pierson Museum

den

eCTRL

waag society

MUSEON

Strathclyde

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Museums and their visitors

+ 6 external

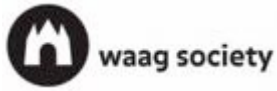
Digital heritage

HCI, co-design co-evaluation

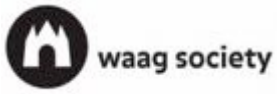
Information curation and access

Personalization contextualisation

Embedded systems, smart objects



Art, design and public making



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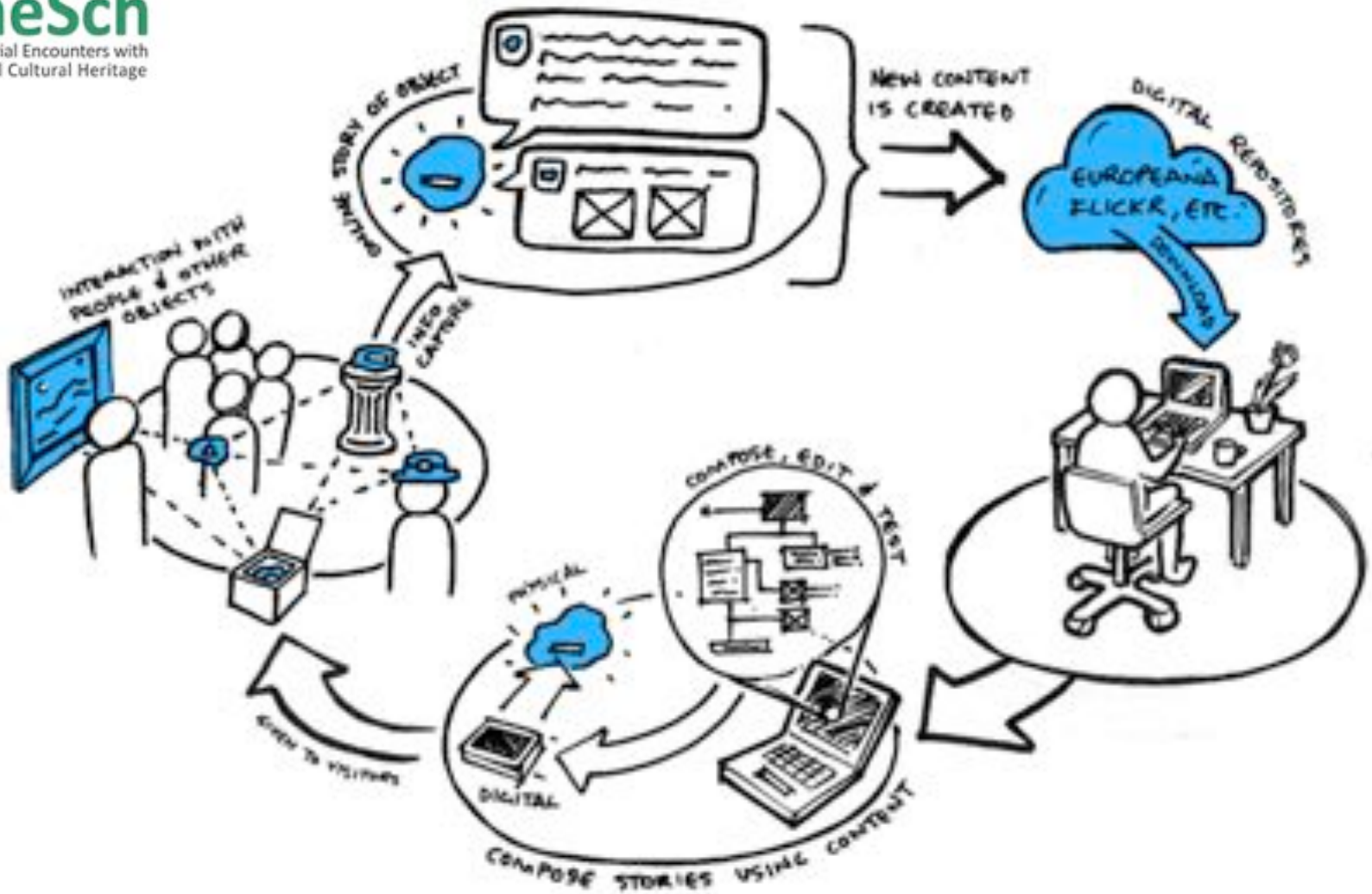

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meSch mission statement

To bridge the gap between physical and digital collections and enable cultural heritage professionals to create novel experiences that best convey the value of their institutions to their visitors onsite and online.

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Selected Publications

- Daniela Petrelli, Luigina Ciolfi, Dick van Dijk, Eva Hornecker, Elena Not, and Albrecht Schmidt. 2013. Integrating material and digital: a new way for cultural heritage. *interactions* 20, 4 (July 2013), 58-63.

- Ciolfi, L., Petrelli, D., McDermott, F., Avram, G. and van Dijk, D. (2015), "Co-Design to Empower Cultural Heritage Professionals as Technology Designers: The meSch Project", in Bihanic, D. (Ed.), Empowering Users Through Design, London: Springer, 213-224

- Mark T. Marshall, Nick Dulake, Luigina Ciolfi, Daniele Duranti, Hub Kockelkorn, and Daniela Petrelli. 2016. Using Tangible Smart Replicas as Controls for an Interactive Museum Exhibition. In *Proceedings of the TEI '16: Tenth International Conference on Tangible, Embedded, and Embodied Interaction* (TEI '16). ACM, New York, NY, USA, 159-167.

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Preparing for co-design

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Cultural Heritage Professionals

- My team knew little about these practices;
- We started with interviews and observations in Ireland and in Europe.
- PhD student embarked on ethnographic work.

Publications:

- McDermott, F., Clarke, L., Hornecker, E., Avram, G. (2013) **Challenges and opportunities faced by cultural heritage professionals in designing interactive exhibits,** Proceedings of the NODEM 2013 Conference, Stockholm, December 2013
- Maye, L., McDermott, F., Ciolfi, L., and Avram, G. (2014**) Interactive exhibitions design: what can we learn from cultural heritage professionals?** In Proceedings of the 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational (NordiCHI '14). ACM, New York, NY, USA, 598-607.

Participating museums

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Concept Generation and Prototyping

Partners collaborating with local heritage institutions and with the meSch heritage partners

Early prototypes to try out ideas and generate "templates" of interaction ("recipes")

Functionality just one aspect, design and look & feel equally important

Portability: what is the interaction concept?

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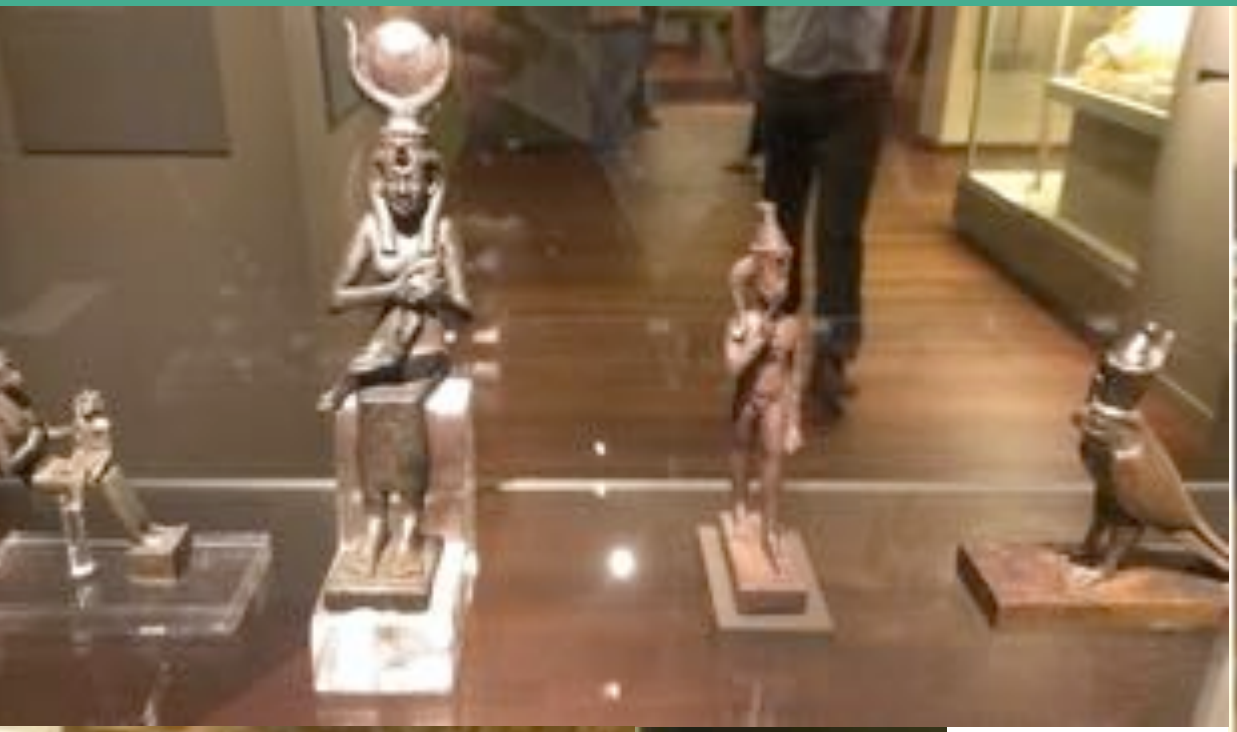
Allard Pierson Museum, Amsterdam, NL



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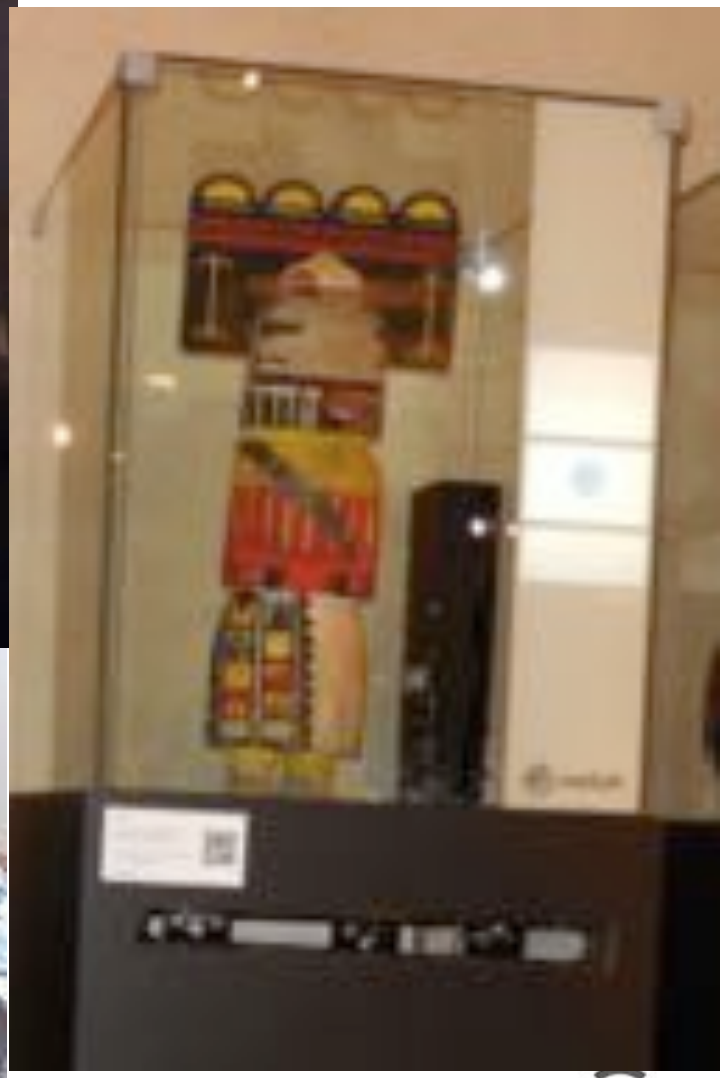
Museon, The Hague, The Netherlands



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Museo Storico della Guerra, Rovereto, Italy

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Collaboration with local Cultural Heritage Institutions: NL

- **Maritime Museum**
- **Dordrecht Museum**

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Collaboration with local Cultural Heritage Institutions: UK

- **Sheffield General Cemetery**

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Collaboration with local Cultural Heritage Institutions: IE

- **The Hunt Museum, Limerick**

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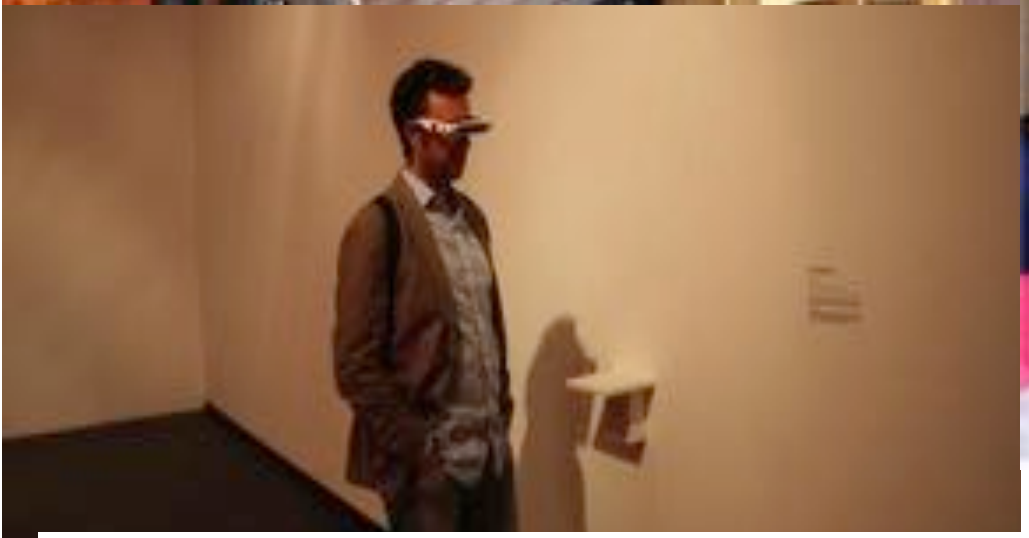
Collaboration with local Cultural Heritage Institutions: ES

Co-design at MediaLab Prado



Co-design at Centro de Arte Dos 5 de Mayo

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Collaboration with local Cultural Heritage Institutions: UK

Riverside Transport Museum,
Glasgow, UK

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Collaboration with local Cultural Heritage Institutions: DE

The Weimar Historical Cemetery

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Co-design activities

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Sheffield: Feb 2013 Kick-off - .Net Gadgeteer

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Amsterdam: June 2013- co-design from prototypes

Trento: October 2013- scenario built around artefact

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Limerick: January 2014- co-design of authoring tool

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The emphasis in co-design activities was on:

- co-design in context
- creating shared understandings
- working with actual museum artefacts

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Exploratory labs

https://youtu.be/q8NdtIYZgw8

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Comparing two co-design perspectives

- Starting from an open brief – the Compass
- Starting from a working prototype – the Egg

- Publication:

Ciolfi, L., Avram, G. , Maye, L., Dulake, N., Marshall, M.T., VanDijk, D., McDermott, F.(2016) "Articulating Co-Design in Museums: Reflections on Two Participatory Processes", In Proceedings of the 19th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '16). ACM, New York, NY, USA, pp.13-25

Designing the authoring tool

Understanding the needs of cultural heritage professionals and co-designing the tool

Publication:

Martin Risseeuw, Dario Cavada, Elena Not, Massimo Zancanaro, Mark T. Marshall, Daniela Petrelli, and Thomas Kubitza. 2016. Authoring Augmented Digital Experiences in Museums. In *Proceedings of the International Working Conference on Advanced Visual Interfaces* (AVI '16), Paolo Buono, Rosa Lanzilotti, and Maristella Matera (Eds.). ACM, New York, NY, USA, 340-341.

The Case Studies

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Applying meSch to public exhibitions

Case-studies: long-term museum exhibitions integrating meSch technology, in the hands of heritage institutions:

- “The Hague and The Atlantic Wall: War in the City of Peace” exhibition at MUSEON, The Hague (April-November 2015);
- “Feint: Unravel the Illusion of Movement in Greek Art” exhibition at Allard Pierson Museum, Amsterdam (June-August 2015);
- “Voices from Forte Pozzacchio” at Museo della Guerra, Trento (September-November 2015; March-July 2016)

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Case Study 1: The Hague and the Atlantic Wall

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The Atlantic Wall Exhibition, Museon, The Hague

https://youtu.be/sK3AdQU9kkc

Case Study 2: Feint: Unravel the Illusion of Movement in Greek Art

https://vimeo.com/146224161

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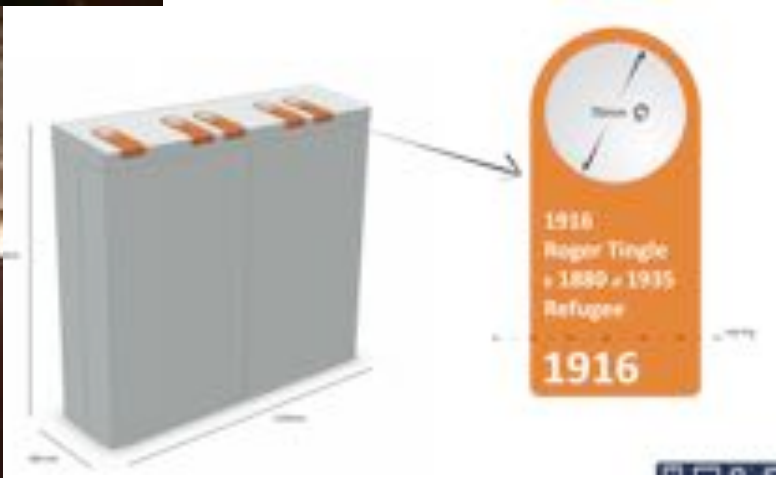
Case Study 3: “Voices from Forte Pozzacchio”



https://youtu.be/DReu2J7eWx4

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The Authoring Feasts

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Amsterdam Nov 2016

https://youtu.be/q2qw6N9X7rM

Sheffield Nov 2016

https://youtu.be/9XQtAssUm50

Limerick Jan 2017

meSch Outcomes

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Co-design resources

http://mesch-project.eu/Co-design/

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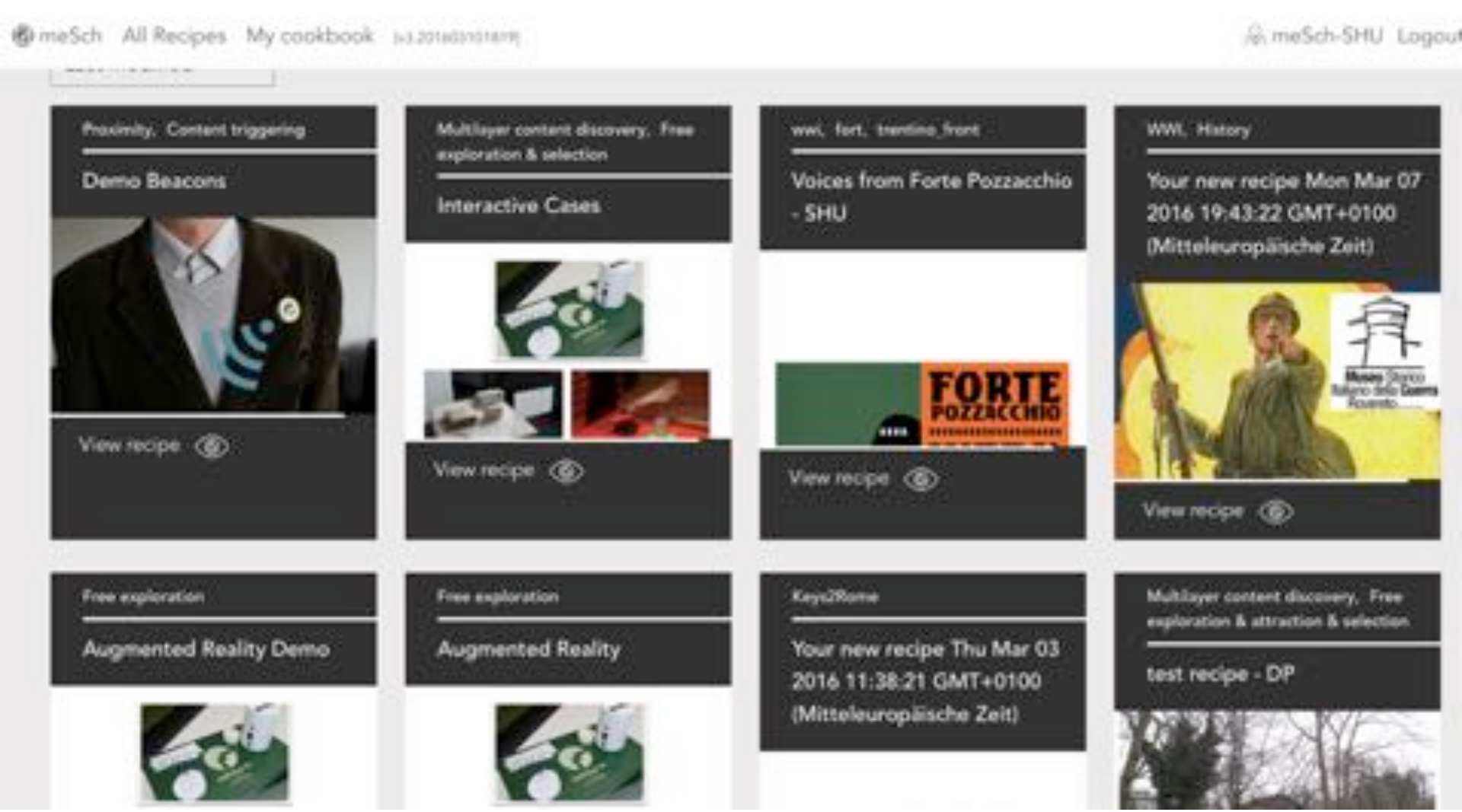
The meSch toolkit

The meSch toolkit: from hardware to software



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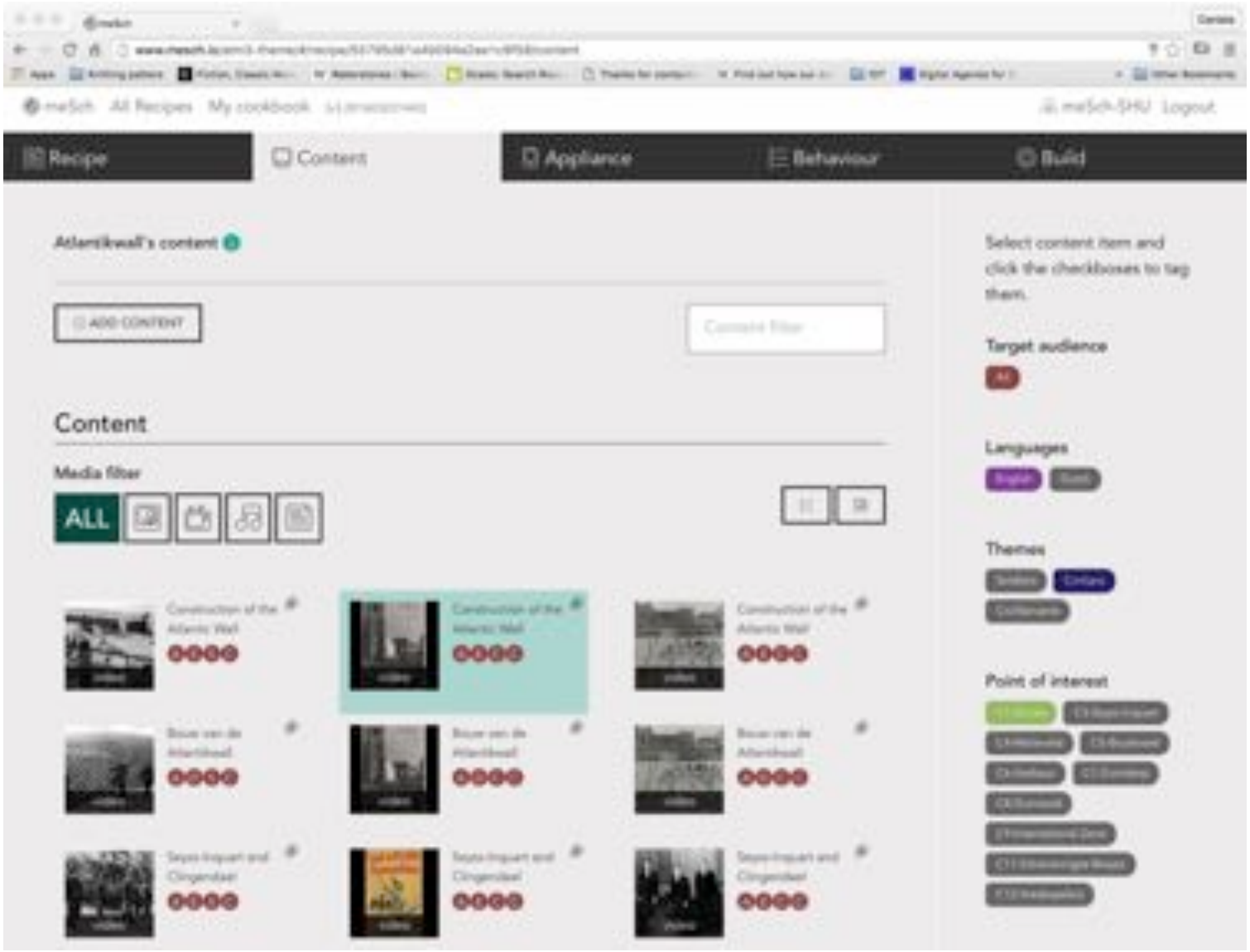
Searching, structuring and tagging content



Reflection on co-design in meSch

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Reflection on co-design and co-creation as process

- Activity or process?
- Ethos of the project
- Long term (4 years), large distributed team
- During the case studies, sustaining the co-design process outside of dedicated "activities" required effort and mediated communication
- Creation of a project team shared language (from 'brief' to 'blidget')
- Relying on each other's expertise -'transactive memory' (Wegner 1985)
- Language groups
- Putting time aside to reflect on the process

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Reflection on co-design – data collection

- Participant/non-participant observation
- Documenting each activity retrospectively; postmortem after each co-design activity;
- (facilitator: part of the group or impartial?)
- Interviews with participants involved in co-design before and after the case studies
- Curators documenting the co-design process during the case studies
- Observation during and questionnaires after the authoring feasts

Reflection on co-design: power relationships

- The brief sets the tone, the power relationships;
- Who benefits? How do we 'configure' participation?(Vines et al. 2013)
- Co-design takes time, while unilateral decisions are quick
- Intricacies, politics, lack of specific skills, lack of continuity
- The priorities of the project vs the priorities of the cultural heritage institution
- Motivations of cultural heritage professionals:
  - control over installation and content;
  - repurposing and reshaping interactive installations;
  - tangibility - the role of replicas
  - use of existing already digitised content; free content
- Is co-design feasible in a museum team? What is needed?

Reflection on co-design: the many facets

- Co-design activities:
  - the kick-off dedicated to team building and setting the tone
  - co-design workshops for understanding curatorial practices and the affordances of the technology
- Co-design of the evaluation framework
- Co-design of the authoring tool
- Co-design of the co-design resource

Conclusion

- Data analysis - still ongoing;
- How are skills and knowledge transferred across professional boundaries? Can we replicate this?
- How is the culture of the organisation influencing this process?
- Is there a way to support/scaffold team dynamics? Who creates the brief?
- How do we make the co-design process sustainable?
- Where do we go from here?
- Will cultural heritage institutions be able/willing to embrace co-design – while adopting (or not) the meSch platform?

Thank You!

For blog entries and links to publications:
http://mesch-project.eu

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The project (2013-2017) receives funding from the European Community's Seventh Framework Programme 'ICT for access to cultural resources' (ICT Call 9: FP7-ICT-2011-9) under the Grant Agreement 600851.

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SEVENTH FRAMEWORK PROGRAMME