# Decoding Digital Curation for Cultural Heritage: A Survey and Extended Proposal

Tugce Karatas, Vincenzo Lombardo

Department of Computer Science, Università degli Studi di Torino tugce.karatas@unito.it, vincenzo.lombardo@unito.it

#### **Abstract:**

Digital curation in cultural heritage (CH) organizations is becoming more and more established as a practice as empirical research into tools, techniques, skills, standards and best practices in particular contexts emerge. This research is twofold:

- formulates a definition of digital curation and the involved activities with the roles and responsibilities of the digital curators
- unpacks the notions of semantic encoding and argues for the importance of data lifecycle and metadata for digital curation.

### What is Digital Curation (Shi et al., 2016)

It is the process of overcoming the challenges raised by the

- selection
- preservation,
- maintenance,
- collection,
- archiving

of digital assets of cultural heritage for present and future use.

### **Design tools and Technologies For CH**

- Data Acquisition and Selection: Wireless Sensor Networks (WSNs), Electrical Resistivity Tomography (ERT), 3D laser scanning, Spectral Imaging, Digital Photogrammetry etc...
- Data Curation and Preservation: Vocabularies, Thesauruses, ontologies, EDM(Europeana Data Model Documentation etc...
- Maintenance and collection: The Digital Archaeological Record (tDAR), ARIADNEplus, ICOM-CIDOC, PREFORMA, EffeHDDT...
- Archiving: Cloud networks, Artificial Intelligence...
- **User Experience:** Wearable technologies and platforms, Augmented Reality (AR), Virtual Reality, Mixed Reality (XR), Internet of Things, Teleimmersion...

What are the criteria for designing and curating **digital tools** that helps to realize an effective **communication?**Is it possible to create a **unified framework** of digital curation for cultural heritage?

## **Architecture of Digital Curation for Cultural Heritage**

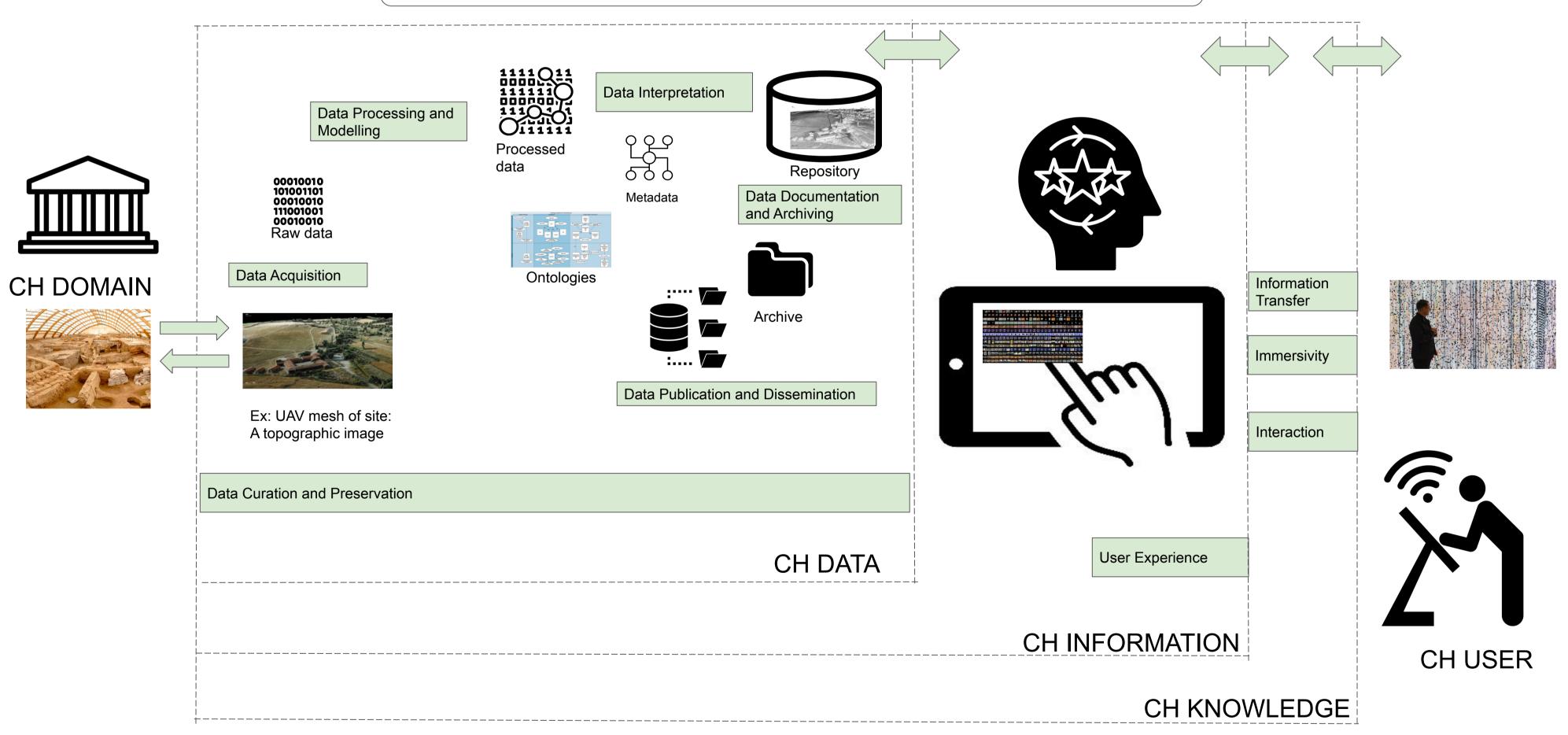


Image Source:ÇatalhöyükResearch Project Archive, 2017

#### Methodology:

Review tasks through existing models and frameworks



Compare
frameworks and
test effectiveness
in CH tasks



Development of an unified digital curation framework



Test validation of the framework on real project











