CRAEFT

Data Management Plan

Project Acronym	Craeft
Project Title	Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity
Project Number	101094349
Deliverable Number	D8.5
Deliverable Title	Data Management Plan
Work Package	8
Authors	Nikolaos Partarakis and Xenophon Zabulis

This project has received funding from the European Commission, under the Horizon Europe research and innovation programme, Grant Agreement No 101094349.

http://www.craeft.eu/

Executive summary

The Data Management Plan (DMP) describes the data management life cycle for all datasets to be collected, processed, or generated by the Craeft project. This deliverable, produced in month 6 of the project is the first version of the Craeft DMP, which outlines the initial set of procedures and templates to be adopted. An updated version of the DMP is scheduled to be produced in months 12, 24, and 36 which is expected to cover the data management life cycle for all data that will be collected, processed, or generated by the project. The final version will also cover post-project data preservation provisions.

The guidelines for data management in the projects carried out within the Horizon Europe scheme are set out by the European Commission (EC) Directorate-General for Research & Innovation. Accordingly, the Craeft project participates in the Open Research Data Pilot (ORDP), an initiative aimed at maximising the reuse of research data. This document will discuss the efforts made by the Consortium to meet the standards of the Craeft in the context of the project's data management planning and how it intends to provide open access to information where possible.

The main objectives of this document are to identify some of the key considerations in data management and to describe the process adopted in developing the Craeft DMP. The criteria for identifying the distinct datasets and how they are curated throughout the project are discussed in detail.

The contents of this deliverable are organized as follows.

In Section 1, we provide an introduction.

In Section 2, we associate the data to be collected with the project objectives (Section 2.1) and, then, we categorise these data into data types and formats (Section 2.2).

In Section 3, we describe how we follow the guidelines pertinent to FAIR data management.

In Section 4, we describe the security measures taken to prevent unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of the collected data.

In Section 5, we present how we treat data and publications that we intend to provide Open Access to.

In Section 6, we present the ethical aspects related to the collected and stored data. These regard the participation of humans in research and the provisions regarding the collection of personal data.

In Section 7, we present the way that we organise the collected data. We follow a hierarchical organisation for the produced data sets that results in a single large dataset for the entire project, organised into sub-datasets. These-sub datasets regard the project pilots and the Representative Craft Instances (RCIs). For each RCI, we classify the data into topics.

In Section 8, we follow the organisation introduced in Section 7 and define the name spaces for the datasets. Moreover, for each RCI topic identified we present a description of the data foreseen to be acquired, the way of acquisition, and the way of storage.

In Section 9, we present the online storage facility we use for sharing data between consortium partners. We use the Nextcloud infrastructure for this purpose.

In Section 10, we briefly discuss how other platforms are used in the day-to-day collaboration between consortium partners.

This deliverable has been updated on M12 with a report of the data that were collected during the first year of the project. This update is reported in Section 11. No other changes were made to the DMP. Moreover, in M12, an appendix has been added with the consent forms used in ethnographic recordings.

This deliverable has been updated in M12 with the collaboration of the External Ethics Advisor.

Document history

Date	Author	Affiliation	Comment
10/04/2023	Nikolaos Partarakis & Xenophon Zabulis	FORTH	First version
22/06/2023	David Arnaud	CERFAV	Deliverable Review
03/07/2023	Nikolaos Partarakis & Xenophon Zabulis	FORTH	Updated version
22/01/2024	Xenophon Zabulis	FORTH	Updated version for data collected until M12.

Abbreviations

AI	Artificial Intelligence
AIFF	Audio Interchange File Format
API	Application Programming Interface
AR	Augmented Reality
AVI	Audio Video Interleave
BIM	Building Information Modeling
BVH	Bounding Volume Hierarchy
CA	Consortium Agreement
CAP	Craeft Authoring Platform
CC	Creative Commons
CERN	Conseil Européen pour la Recherche Nucléaire
CH	Cultural Heritage
CH	Cultural Heritage
CHI	Cultural Heritage Institutions
CIDOC-CRM	CIDOC Conceptual Reference Model
CityGML	City Geography Markup Language
CNC	Computer Numerical Control
CrO	Crafts Ontology

CSS	Cascading Style Sheets
DCI	Digital Cinema Initiative
DMP	Data Management Plan
DOI	Digital Object Identifier
EDM	Europeana Data Model
FAIR	Findability, Accessibility, Interoperability, and Reusability
FPS	Frames per Second
GIS	Geographic Information System
GL	Graphics Library
GLB	GL Transmission Format Binary file
glTF	GL Transmission Format (glTF)
HC	Heritage Craft
HD	High Definition
HTML	HyperText Markup Language
IMU	Inertial Measurement Unit
IP	Intellectual Property
IPR	Intellectual Property Rights
ISO	International Organization for Standardisation
JPG	Joint Photographic Graphics image format
LHTs	Living Human Treasures
LOD	Level Of Detail
MNO	Museum Narratives Ontology
MoCap	Motion Capture
MP3	MPEG (Motion Picture Experts Group) Layer-3 sound file
MPEG4	Motion Picture Experts Group (File Allocation Table) 4-layer
MR	Mixed Reality
OBJ	geometry definition file format
ORDP	Open Research Data Pilot
PNG	Portable Network Graphics image format
PURL	Persistent URL
RAID	Redundant Array of Inexpensive Disks
RCI	Representative Craft Instance
RDF	Resource Description Framework
RGB	Red Green Blue
RGB-D	RGB-Depth
Some	Social Media
SSL	Secure Sockets Layer
STL	Standard Triangle Language
TB	Terabyte
UHD	Ultra-High Definition
UML	Unified Modelling Language
UNESCO	United Nations Educational, Scientific and Cultural Organization
VMs	Virtual Machines
VR	Virtual Reality
WP	Work Package

Table of contents

1. Introduction

Effective data management is crucial for maximizing the value and impact of research findings. The Craeft project recognizes the paramount importance of structured and strategic data management to facilitate not only the seamless execution of project activities but also to ensure compliance with the highest standards of data stewardship as set forth by the European Commission (EC) Directorate-General for Research & Innovation. This introduction sets the stage for the comprehensive Data Management Plan (DMP) outlined in this deliverable, which marks a foundational step in the project's commitment to exemplary data management practices.

The Craeft project, with its diverse and rich datasets to be collected, processed, and generated, necessitates a robust framework to navigate the complexities of data management across its lifecycle. This deliverable, produced in the sixth month of the project, serves as the inaugural version of the Craeft DMP. It encapsulates the initial procedures and templates that have been adopted, laying down a solid foundation for the project's data management infrastructure. This initial version is designed to evolve, with subsequent updates scheduled at critical junctures of the project timeline—months 12, 24, and 36—to ensure the DMP remains responsive to the project's evolving needs and the data it encompasses.

Participation in the Open Research Data Pilot (ORDP) underscores the project's alignment with the European Commission's vision of maximizing the reuse of research data. By adhering to the principles of open access and the FAIR data management guidelines—making data Findable, Accessible, Interoperable, and Reusable—the Craeft project endeavours to contribute to a culture of transparency and collaboration within the research community. This document, therefore, does not merely serve as a procedural manual but as a testament to the project's commitment to the highest standards of data management. It aims to articulate the thoughtful and methodical approach adopted in developing the Craeft DMP, detailing the criteria for data identification, curation, and preservation. Furthermore, it elaborates on the project's adherence to ethical standards, security measures, and the overarching strategy for data organization and sharing.

The subsequent sections of this deliverable are meticulously organized to provide a clear and comprehensive guide to the Craeft project's data management practices. From the classification of data types and formats to the ethical considerations and security protocols, each section builds upon the last to present a holistic view of the project's data management landscape. This document is not only a blueprint for the project's data management strategy but also a resource for stakeholders to understand the project's commitment to data excellence and integrity.

Data of different natures will be collected, processed, and generated during the lifetime of the Craeft project. Some of these data might contain sensitive information and thus require a clear data management plan (DMP) on how they are to be handled, i.e., stored, processed, accessed, and protected against unauthorized or improper use, etc.

Following the guidelines on data management in Horizon Europe, the DMP should cover the following sections: dataset reference and name, dataset description, standards and metadata, data sharing, archiving, and preservation (including storage and backup).

Based on these guidelines, the main goals of the Craeft DMP are to:

- Outline the types of data collected and generated (or foreseen for generation) during the Craeft project. The analysis of data concerning the project objectives is presented in Section

2.1 while their categorisation in terms of data types and data formats is presented in Section 2.2.

- Describe the methodology and standards required, but also identify whether and how data will be collected, shared, exploited, re-used, or made accessible for verification, and how they will be curated and preserved. This goal is covered by several sections of this deliverable. More specifically, general principles of data reuse and applicability of domain standards are presented in Section 2.4. Section 3 provides an analysis of specific measures to be taken by the project to make data (i) findable, (ii) openly accessible, (iii) interoperable, and (iv) increase data reuse. In terms of data curation in Section 7 the structure of the Craeft Dataset is presented while Section 8 expands on the required definitions for the curation of each specific data collection.
- Specify the degree of privacy and confidentiality of the collected/generated data, and outline the considerations and measures that are foreseen for the adequate management of the data from legal, ethical, and security points of view including data sensitivity during and after the project. Privacy, confidentiality and ethical aspects are covered in section 6 while data security is covered in Section 4.
- Outline the guidelines that will be followed by the Craeft consortium concerning the Open Data initiatives that are covered in detail in Section 5.

2. Data Summary

Craeft will support the free circulation of research, scientific knowledge, and technology by giving free online access (open access) to the results to improve knowledge circulation and thus innovation. Special care will be taken to preserve commercial value while providing scientists with valuable data. Craeft will take measures to preserve anonymity and appropriately process the collected data. The aim is to gather data valuable for the technological and scientific evaluation of the project achievements respecting privacy-related issues and legislation. Thus, it is important to render the research data discoverable, accessible, assessable intelligible, useable beyond the original purpose for which it was collected, and interoperable to specific quality standards. Craeft capitalizes on the development of a well-defined DMP, including Data Types, Formats, Standards, and Capture Methods, Ethics and IP, Access, Data Sharing, and Reuse, Resourcing, Deposit and Long-Term Preservation, Short-Term Storage and Data Management.

2.1. Purposes of data collection and generation

The activities supported by the collected data are the following.

- **Craft practice documentation:** Craeft, will develop representations of tacit knowledge and "training prescriptions" to efficiently develop skill and creativity with little and remote assistance. This includes action plans, activity diagrams in UML, audio-visual recordings of craft practice, haptic recordings and MoCap.
- **Crafting activity understanding and simulation:** Generative representations are important to be able to capture practical and tacit knowledge and reuse it in different crafting contexts. Training data and trained models for craft-specific simulators are considered data types of Craeft and valorise multimodal and semantically annotated data recordings of craft actions.
- **Vocational training:** Craeft will implement virtual workspaces enhanced through VR and MR and interactively augmented by haptic devices to develop immersive training environments that enable realistic vocational training.
- **Design:** Craeft will catalyze creative exchange between crafting and design communities, facilitate the transmission of practical knowledge, enhance practitioner capabilities, and increase income streams from design and traditional know-how. New designs will be also stored following this DMP.
- **Craft context documentation:** Multimodal digital content to document the social and historical context of each RCI.
- **Immersive interaction, immersive experiences and storytelling:** Craeft will develop haptic training aids and will develop ways of tacit knowledge transmission. Relevant data regarding training data and simulation results to support training aids during a real-time interaction.

2.2. Relation of data to the objectives of the project

Data are considered an integral part of the objectives of the Craeft project since several activities generate data or are supported by previously collected and/or post-processed data. As such, we analyse the relation of data per project objective as presented below:

2.2.1. O1-Understanding crafting actions and processes, in a Maker-Material-Negotiation model

Regarding O1 the following data categories will be considered:

- **Descriptors of craft taxonomies**: Through a unifying model, the mechanical, perceptual, and intellectual components of crafting activities will be brought together, as the *negotiation* between the maker and the material. Relevant data types include text, vocabularies, ontology, and visual depictions of conceptual models.
- **Actions descriptors for material transformation:** Action is "the unit activity attended by a practitioner". Action plans are hypotheses for the achievement of goals, under prescribed conditions on the state and the spatial arrangement of materials. Plans require power and affordances, availed by working spaces, hands & body, and tools, and agents of, heat, moisture, chemical reaction, or colour pigmentation. Relevant data types include text, visual depictions of actions, text, visual and semantic representation of affordances, digital representation of working spaces, hands & body, and tools.
- **Tools: Actions upon materials are mediated by tools and/or hands. During the action, the practitioner** attends to external (sensory) and internal (somatosensory) stimuli that inform the course of the action. Relevant data types include photographic documentation, 3D documentation, and digitization of tools and materials.
- **Techniques:** A technique or crafting process combines actions in an "umbrella plan" called a process schema. Crafting processes interchange between work of risk and certainty. Relevant data types include Activity Diagrams in visual form, Process schemas and their visual depictions, and semantic representations of process schemas.
- **Digitization** of crafting objects and activities as **signals** include surfaces, anaglyphs, solids, human & tool motion, material deformation, sounds, and sometimes heat, humidity, and other properties. Their analysis yields grips, postures, and gesture representations that aim for understanding and reenactment. Craeft brings advanced background digitization methods that will be extended for materials frequently encountered in crafts, such as transparent, translucent, and shiny, but also surface textures (tactile sensation) that exhibit digitization challenges. Relevant data types include photographic documentation, 3D documentation, digitization, advanced digitization of surfaces including $2^{1/2}$D digitization and digitisation of challenging materials
- **Qualia:** Memories of internal signals (qualia) will be verbally testified, but also recognized out of simulated imagery generated by audio, visual, or haptic rendering. The particular rendering is, then, a digitization of the sensory imagery the practitioner "feels". The use of tacit knowledge is revealed by psychophysical analytics on perceptual performance (i.e., two-alternative forced-choice) tools. Relevant data types include verbal testimonies, simulated imagery, audio-visual data, and data for haptic rendering.
- **Advanced ethnographic observations** will be designed and applied in eight RCIs spanning the range of techniques and materials. Comparative studies ensure their accurate modelling through differences and similarities. Ethnography will include contextualization narratives on the technological, social, historical, and economic context of RCI evolution until today. Data types include audiovisual documentation of advanced ethnographies and their segmentation into actions, digitization of fieldwork notes, transcripts of interviews, audio recordings of interviews, etc.
- **Ontologies:** An ontology for crafts (CrO) will be extended to associate semantics and signals for the new entities (hypotheses, affordances). Data types include mainly ontology specifications in RDF.

2.2.2. O2-Digital reenactment of craft actions and processes

Regarding O2 the following data categories will be considered:

- **Archetypal** simulators will digitally reenact the basic classes of actions, abstracting mechanics via computational modelling of operation principles of (1) Add/Subtract by Constructive Solid Geometry, (2) Interlock by Knot/Textile Algebras, and (3) Free-form by mass-preserving, free-form 3D and 2D transforms. Simulators will model mechanical affordances as Archimedean Simple Machines (e.g. a knife is a wedge) or physical & chemical (conditioning) agents i.e., heat, moisture, chemical, etc. Relevant data types include initialization data for archetypal simulators, models of mechanical affordances, and outputs of engineering simulations on the basic operation principles.
- **Action simulators** will visualize techniques, enable modulation of action parameters, space, and time, offer inventories of tools, and predict the results of the action on the material. Relevant data types include initialization data for action simulators, digitization of tools, and simulator outputs.
- **Process simulators** will organize actions and bring together partial results, considering fabrication constraints (e.g. order, concurrency, decision points) and spatial constraints of the workshop. Relevent data types include initialization Data for process simulators, simulator outputs, 3D models of tools, machines, and workshops. 3D models of the human anatomy or parts of the human anatomy.
- **The simulation result,** a realistic virtual artefact, is regarded as (simulated) mental imagery. Simulation analytics log the material quantity used or wasted, energy and time spent, work gestures, and “choreography” collaborating practitioners (left). Relevant data types include simulation results in visual form possibly rendered in 3D and exported in commonly used formats.

2.2.3. O3-Education

Regarding O3 the following data categories will be considered:

Educational material per craft, to: (a) Introduce vocabulary, principles of material treatment, crafting processes, workspace configuration, recipes, work gestures, and measurement tools (e.g., tape measure, level), (b) Guide across the inventory of techniques and learn to plan workflows, (c) Develop critical thinking and judgment on treating craft as a problem-solving process and learn principles of continuous design and improvisation, as well as the handling of errors (inset shows practitioner judgment required in detaching a glass body from the blowpipe, depending on its viscosity/temperature). Relevant data types include educational material composed out of the data collected from O1-O2 including vocabularies, descriptions of crafting processes, crafting recipes, etc.

2.2.4. O4-Training

Regarding O4 the following data categories will be considered:

O4-A Educate attention and learn to detect and attend to perceptual stimuli and interpret their meaning in the monitoring and control of the action at hand. These stimuli are (a) external (e.g. audio/video), signifying material qualities, properties, and events, and (b) internal (e.g., proprioceptive, tactile), on awareness of hand & body posture, modulation of applied force/tension, incidence angle, etc. Relevant data types include audio/visual material, input data for simulators, and data for haptic rendering.

O4-B Train actuation regards the development of dexterous manipulation for tools of risk. In handwork, tactile interaction is essential to achieve realistic and beneficial training experiences for training both active perception and perceptive actuation. Relevant data types include Initialisation data for simulators and haptic devices, 3D representations of training objects, tools, machines, and simulation results.

O4-C Social interaction in the workshop is important for knowledge transmission. Craft materiality imposes a need for co-presence to teach the interpretation of stimuli. Communication is important because part of this knowledge is tacit and understood by the common stimuli shared by the instructor and apprentice. Relevant data types include Training material composed out of the data collected from O1-O3, virtual workshop environments, and audiovisual craft instructions.

2.2.5. O5-Design

Regarding O5 the following data categories will be considered:

New ideas, techniques, styles, and designs. The Design Studio will use Craft Studio as an audio, visual, and haptic rendering engine to develop a 3D virtual workspace for the design, manufacturing, and presentation of artefacts. The Design Studio will provide Haptic interfaces, Craft-specific 3D editing tools, Craft-specific computer-aided design tools, Manufacture specialized aids, and Visual & haptic artefact previews. Relevant data types include 3D models of virtual workspaces, intermediate 3D design results, specialized aids in printable 3D format, designs in formats compatible with subtractive manufacturing technologies, etc.

Regarding the data created by users when using these design tools, these will be stored locally in each user's profile and will not be made available online through automated cloud-based synchronization methods. Users will be able to manually upload such data to their online spaces either hosted by Craeft or any other platform meant for communication of their work.

2.2.6. O6-Preservation & revival

Regarding O6 the following data categories will be considered:

O6-1 Certification and skill acknowledgement: educational programs aided by the codesign and adoption of digital aids in knowledge transmission and training and certify digital design and fabrication capacities, across the range of materials and ways of formal and informal learning. Relevant data types include educational material for educational programs, digital assets for fabrication aids, etc.

O6-2 Income stream diversification: Tutoring supports "earning a living from craft […] through teaching". Relevant data types include tutorials, lessons, step-by-step guides, training exercises, etc.

O6-3 Community service: Portal services will include Craft education & training multimodal technique demonstrations, instructions, technical assistance, remote tutoring, exercises, design inventories, and activities for young members with appropriate, simplified, and "satisfied" introductory content, serious digital games, and safe, printable toys and DIY illustrated instructions. For valorisation, Branding, and Reputation the portal will support individual product registration (artefacts & digital assets), personal portfolios, personal pages that register certificates & credentials, practitioner interviews & masterclasses, reputation building, liaison with income streams, integration with SoMe channels and online markets for crafts (e.g., etsy.com). Online preview. Realistic 3D and environment-embedded (AR/VR) previews of products, in their environment. Regarding new technologies and new products, Craeft will develop serious games (digital), toys (physical) for young age and life-long learning, an association of digital dimensions to individual artefacts. Finally, Craeft will boost the awareness and promotion of European Crafts and Identity. The Community Portal will provide a preliminary inventory regarding all eight RCIs. Summarising the data types of the community includes

a plethora of data types such as audio-visual data, illustrations, 3D models, designs, instruction manuals, etc. that support the community.

2.2.7. O7-Product valorisation

Regarding O7 the following data categories will be considered:

O7-2 New products proposed as serious & creative digital games and physical toys for all ages. Toys will be designed and developed in Design Studio either simplified for younger audiences or designed to engage creative activities for elders. The digital blueprints of these toys can be marketed in printable formats as electronic products. Relevant data types include data for open designs, digital games, and toys.

2.3. Data types

Craeft is expected to work on various data types. From these, the primary data types will be:

- **Audio/video** recordings of craft practitioners.
- **Audio/video archives-documentaries** will be produced including subtitles.
- **Motion data** acquired by MoCap and inertial sensors.
- **Image and text archives** that either existed before the project initiation or were digitised by the project.
- **New images** acquired by photographic documentation.
- **Data for 3D reconstruction** such as laser scanning and digital images.
- **Reconstructed 3D models** created from laser scanning and digital images.
- **Craft descriptions**, including noted activity diagrams, illustrations, manuals, vocabulary of artefacts, basic materials, tools, or machinery.
- **Social and historical sources**, including documents on the timeline of craft instances, temporal mapping of craft instance evolution, and conceptual knowledge.
- **Consent/copyright forms and questionnaires** are to be collected and securely stored in hardcopy.
- **Consent/copyright forms:** delivered, signed, collected, and securely stored in hardcopy.
- **Questionnaires:** collected in hard copy.

These data will be used in the project for a variety of purposes including the formulation of training datasets for AI algorithms, the generation of simulation results, online communication material, as well as the production of new digital assets compatible with additive and subtractive manufacturing technologies.

2.3.1. Video and ambient audio recordings

The Video and audio streams will be stored using the following encoding:

- AVI file format
- HD 1920x1080 pixels 50FPS video with MPEG4 codec, 4K UHD 3840 x 2160 pixels 30FPS video with MPEG4 codec and DCI 4K 4096 x 2160 pixels 30FPS video with MPEG4 codec
- 320 Kbps stereo audio with MP3 codec

2.3.2. Audio/video archives-documentaries

The Video and audio streams of the archives-documentaries will be resampled and homogenized using the following encoding:

- AVI file format
- 1280x720 50FPS video with MPEG4 codec
- 320 Kbps stereo audio with MP3 codec

2.3.3. Motion Capture (MoCap) Data from MoCap suit and Vicon room

Mocap Data will be saved and stored in the form of BVH files.

2.3.4. IMU data

In case recordings include IMU Data, this will be stored as plain text files containing timestamps and data streams of each sensor.

2.3.5. Images and text archives

Images and text archives will be stored in a flexible, modular, open-source repository platform with native linked-data support using the Fedora platform. (see Section “3.2. Making data openly accessible”).

2.3.6. Images captured by the project

Colour images from handheld cameras will be collected from all pilot sites. These will be used both for the enrichment of narratives including motion-based narratives and the dissemination of project results to social media platforms.

2.3.7. 3D reconstruction data

Regarding data for 3D reconstruction, the following types will be considered

- Aerial, colour images from drones will be acquired in outdoor scenes. The data will enable the reconstruction of outdoor scenes in 3D.
- Colour images from handheld cameras will be collected from all pilot sites. The data from the capture will allow the reconstruction of either indoor or outdoor scenes in 3D
- Laser scanners, stationery and handheld, will be used for high-fidelity 3D reconstructions of mainly indoor, as well as, outdoor scenes. Stationary, long-range, laser scanning will be utilized for large-scale scans; i.e., an entire room in indoor cases, or the facade of a building or a square in outdoor cases. Handheld, short-range, laser scanning will be utilized for the reconstruction of scene details with very high accuracy and precision. Collected data will be in the form of point clouds, including colour information.

2.3.8. 3D models, processed digitisations

This category regards artificial 3D models of tools, machines, and equipment of no historical significance that are used as part of craft demonstration, simulation and training. These are created in 3D modelling software and are of the same data files as 3D digitisations. Furthermore, processed 3D digitisation enhances their appearance or rectifies digitisations.

2.3.9. Trained models for AI algorithms, training data, and simulation results

Training datasets for AI algorithms that contain annotated textual and visual information, trained AI models to support AI algorithms and generative simulation results to support immersive craft training activities. Annotated visual information will be acquired during craft understanding sessions and will regard craft scenes that involve a craft practitioner executing crafting actions taken from an anthropocentric perspective.

2.3.10. Activity diagrams, illustrations, manuals

The conceptualisation of craft processes in the forms of activity diagrams, possibly accompanied by verbal information in the context of instruction manuals and enhanced with visual illustrations of abstracted craft processes.

2.3.11. Social and historical knowledge for each RCI

Social and historical knowledge for each RCI is a collection of information that is the output of the systematic study of the historical sources, including the ethnographic orientation of the studied RCI. It is mainly textual information supported by digital artefacts. As a baseline, this contains:

- A vocabulary of artefacts, basic materials, tools or machinery involved.
- A mapping of the fundamental craft tasks and processes.
- A timeline of the craft instance within the general concept of history, including a temporal mapping of craft instance evolution reaching today.
- Contextual and conceptual knowledge of the studied craft.
- References to sources.

The sources will be encoded to the Craeft Authoring Platform and all assets will be cross-linked with external open data repositories for long-term preservation.

2.3.12. Web-based material

These include audio-visual assets post-processed for web-based rendering. Videos will be encoded in MPEG4 codec using a resolution of 1280x720 30FPS and 320 Kbps stereo audio with MP3 codec. Audio files will use the same audio encoding. Multimodal text documents will be provided in HTML with CSS support. Digital assets will be provided in low-res and high-res with the support of LOD previews. Digital assets for 3D printing and milling will be provided in the format presented below. Instruction manuals and exercises will be provided in a pdf file format with support for online e-book-based rendering.

2.3.13. Digital assets compatible with additive and subtractive manufacturing technologies

3D models compatible with additive manufacturing technologies will be provided in .stl and .obj file formats. Ready to print file will be provided in .gcode format. Files for laser cutting, laser engraving and CNC cutting will be provided in .dxf format.

2.3.14. Consent/copyright forms

Following the Ethics Requirements of the project: Kept centrally by the coordinator in hard copy and scanned versions.

2.3.15. Questionnaires

Following the Ethics Requirements of the project: Kept centrally by the coordinator in hard copy and scanned versions.

2.4. Re-use of existing data and how

Existing sources of information regarding digital CH resources, scientific collections, archives, museums, libraries and CHIs published in the form of linked data repositories, to be employed by the research and innovation activities of the project will be considered. The review of existing linked data sources will also focus on collections for which sufficient access rights are provided, to allow the exploitation of the content from the scientific community and the project. The collected knowledge will be aligned with existing standards on CH such as CIDOC-CRM and the EDM to contribute towards enriching when possible existing collections.

2.5. Data storage

Considering the initial planning of the pilots and pilot content for the Craeft project it is estimated that an overall storage capacity of 2TB per pilot site will be required to store both raw and processed data.

Every dataset will be stored on hard disks provided by the partner in charge with links to the data management/exploitation portals. To avoid any data losses and ensure fast and reliable access to the data common storage/redundancy mechanisms will be utilized (e.g. RAID-1, RAID-5 etc.). Data will be also stored by FORTH in a dedicated Craeft autonomous (offline) storage system (RAID-5) together with weekly backups.

All datasets will be maintained for the entire duration of the project as well as for 3 additional years after its conclusion.

After the project ends, all datasets will be stored in a centralized facility to minimize maintenance costs. To this end, all datasets will be also made available through a European infrastructure (Zenodo) for long-term preservation and further exploitation by the scientific community. Moreover, some selected representative examples shall be available via the Craeft community on the management/exploitation portals.

3. FAIR data

According to the "Guidelines on FAIR Data Management in Horizon Europe"[1], the Craeft DMP applies to four types of data: (i) making data findable, including provisions for metadata, (ii) making data openly accessible, (iii) making data interoperable, and (iv) increase data re-use. Versioning will be supported to all datasets contributed to Zenodo and made openly available.

3.1. Making data findable, including provisions for metadata

The primary responsibility for the storage and findability of the data lies with the data creator. However, all data raw and curated data and final data products created by Craeft (i.e. 3D reconstructions) will be stored in one central archive for long-term preservation. This will be hosted by FORTH and does not preclude additional use of European and international repositories. The aim of the central hosting of data is data preservation.

All datasets will include metadata: discovery and technical metadata that defines the what, where, when, why, and how of the data. Where appropriate, the data creators will assign Digital Object Identifiers (DOIs) or a Persistent URL (PURL) to their datasets.

All datasets will be also made available through Zenodo[2] for long-term preservation and further exploitation by the scientific community.

Craeft will create a semantic Web-based search on top of the made available through the Craeft Authoring Platform.

The use of open and interoperable data and metadata standards and formats is a key aspect of technological and semantic data operability, allowing the data to be discoverable and hence promoting international and interdisciplinary access to, and use of, research data.

- For the representation of CH artefacts, the CrO ontology will be based on the Europeana Data Model (EDM), a *de facto* standard for describing and contextualizing CH artworks. The re-use of EDM in the CrO will facilitate the exchange of the descriptions produced by the project with other institutions (including Europeana itself), crossing the well-known semantic interoperability barriers.
- Craeft ontologies will rely on the CIDOC CRM[3], an ISO standard for the documentation of museum objects. The CIDOC CRM is endowed with the classes and properties for modelling events and their relationships, and for distinguishing between time-dependent (perdurant) and time-independent (endurant) entities. The model will be enriched with semantic constructs to model additional forms of information such as human motion captures and contextual information.

3.2. Making data openly accessible

Craeft will pursue the widest possible dissemination of open data but it will also apply certain restrictions to the dissemination of data to protect data with IPR issues or data that contain sensitive

[1] https://open-research-europe.ec.europa.eu/for-authors/data-guidelines
[2] https://zenodo.org/
[3] http://www.cidoc-crm.org/

user information. It is expected that Craeft will release open data processed outcomes of the project while securing at least for the project lifetime raw data that will be used by the technical developments of the project. It is foreseen that after the end of the project portion of this data will be made available for further exploitation by the research community and end users.

3.3. Making data interoperable

Craeft will use open and interoperable data and metadata standards and formats which are a key ingredient to support technological and semantic data operability, allowing the data to be discoverable and hence promoting international and interdisciplinary access to, and use of, research data.

- For the representation of CH artefacts, the ontology will be based on the Europeana Data Model (EDM), a *de facto* standard for describing and contextualizing CH artworks (http://pro.europeana.eu/share-your-data/data-guidelines/edm-documentation).
- For the representation of craft-related knowledge and contextualisation narratives, the ontology will rely on the CIDOC CRM[4], an ISO standard for the documentation of museum objects.

3.4. Increase data re-use

Craeft participates in the Pilot on Open Research Data launched by the European Commission along with the Horizon Europe Programme. The consortium believes firmly in the concepts of open science, and the large potential benefits the European innovation and economy can draw from allowing the reusing of data at a larger scale. Therefore, all data produced by the project will be published with open access. Particularly, access is provided through the Creative Commons CC0 license, for all datasets at this project stage. In any case, future iterations on the DMP will provide further information in the case where parts of the data are not to be made publicly available of course with a justification for the rationale on non-availability.

All public datasets will be available for sharing and re-use via the Craeft Authoring Platform. These portals will be the common means for exchanging data either among the partners of the project or between the consortium and third parties. The specifications of how and which of the portals will be used in the context of data sharing and reuse will be defined in the next months by the consortium. These specifications will refer to any new plugins that would have to be installed in the current portal infrastructure, for dealing with the different data manipulation needs.

[4] http://www.cidoc-crm.org/

4. Data security

Data security measures in Craeft are intended to prevent unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of the data collected by the project. Data security is part of the risk assessment methodology of the project as failure to implement data security controls could result in increased risk to subjects.

With the project's focus on utilizing data to enhance craft processes, data security becomes paramount. By systematically identifying potential risks, the organization gains heightened awareness of vulnerabilities that could compromise the confidentiality, integrity, and availability of collected data. This process becomes essential for the safeguarding of sensitive craft-related information, preventing unauthorized access, use, disclosure, disruption, modification, inspection, recording, or destruction of the data. This not only protects the interests of the subjects involved but also ensures the project's credibility and compliance with data protection regulations. Recognizing data security as an integral part of the risk assessment methodology, the project acknowledges that failure to implement robust data security controls could exponentially increase the risk to subjects, eroding trust and potentially leading to legal consequences. Therefore, integrating data security concerns into the risk identification process reinforces a culture of vigilance, foresight, and responsible data management, further strengthening the project's ability to navigate uncertainties with resilience and uphold ethical standards.

The outlined data security measures serve as a robust framework for ensuring the confidentiality, integrity, and availability of project data. By implementing these measures, the project takes critical steps to safeguard sensitive information and minimize the risks associated with data breaches or unauthorized access:

1. **Password Protection:** Data collection and storage devices, including portable hard drives, are fortified with strong passwords that adhere to a stringent criterion, comprising a combination of uppercase and lowercase characters, numerals, and special symbols. This measure acts as a formidable defence against unauthorized access to the stored data.
2. **Encryption and Central Storage:** All research data is subjected to encryption and stored centrally by FORTH, offline, utilizing established redundancy mechanisms such as RAID-1 or RAID-5. This approach ensures that even if individual devices are compromised, the encrypted data remains secure, minimizing the potential impact of breaches.
3. **Separation and Protection of Identifiers:** A robust practice of isolating identifiers, data, and encryption keys into separate, password-protected or encrypted files is adopted. The implementation of distinct passwords and storage locations for each file further enhances the security posture, making it considerably challenging for malicious actors to piece together the complete puzzle.
4. **Secure Data Transmission:** To ensure the secure transmission of data between project partners, the industry-standard Transport Layer Security (TLS), also known as SSL, is employed. The utilization of a minimum key length of 128 bits enhances the encryption strength, guaranteeing the confidentiality of electronically transmitted data.
5. **Portable Device Security:** Identifiers are not stored on easily compromised devices like smartphones, laptops, tablets, or flash drives. If portable devices are utilized for initial identifier collection, encryption of data files is imperative. Following this, identifiers are promptly transferred to a secure system. These devices are fortified with passwords, and they are physically secured when not in use, minimizing the risk of data exposure.

This project has received funding from the European Commission, under the Horizon Europe research and innovation programme, Grant Agreement No 101094349.

http://www.craeft.eu/

6. **Encrypted Communication:** All communication involving subjects or collected data is encrypted. This measure prevents any potential interception or eavesdropping, ensuring that the privacy of sensitive information is maintained throughout communication channels.
7. **Protection of Sensitive Information:** To mitigate the risk of exposure, no protected health or personal information is transmitted via email. This proactive stance aligns with data protection regulations and avoids potential vulnerabilities associated with email-based data exchange.

By diligently adhering to these comprehensive data security measures, the project not only safeguards the integrity of its research but also upholds its commitment to ethical data handling and privacy protection. These measures collectively contribute to a robust risk management strategy that fosters stakeholder trust and ensures the safe progression of the project.

5. Open access

The Craeft consortium endeavours to offer open access to its scientific results reported in publications, to the relevant scientific data and data generated throughout the project lifetime in its numerous technology evaluations and use case demonstrators. We consider that giving open access to scientific results, and important breakthroughs can speed up knowledge transfer among European researchers and industries, boosting knowledge and competitiveness in Europe. Nevertheless, where exploitation purposes mandate tighter control, IPR will be appropriately handled according to the CA that will be signed at the beginning of the project.

5.1. Open access publications

Craeft addresses open research data as a keystone in advancing EU research and fostering innovation. Craeft will target "Gold" open access and has a foreseen budget for this activity. Wherever "gold" is not possible, "green" open access will be pursued. The target is to maximise the impact on scientific excellence in ways that include publication in open-access yet highly appreciated journals as well as blogs and publicly available White Papers.

A list of publications will also be made available via the project website, which would also appropriately link to the associated repository, where possible.

5.2. Open access repositories

The Craeft project will use an open-access repository to share the publications as well as the research data, which the project members intend to designate for sharing under the ORDP, to enable third parties to access and use free of charge. The project members are free to choose the specific repositories to utilise, as long as they satisfy the free access requirements of the ORDP. Example open access repositories recommended by the OpenAIRE project[5], funded by the EC aiming to support the implementation of open access in Europe, including the Zenodo repository[6] and the Arxiv e-print service[7] facilitated by the Cornell University library.

- **OpenAIRE: Zenodo repository**

OpenAIRE is an EC-funded initiative that aims to promote open scholarship and substantially improve the discoverability and reusability of research publications and data. Zenodo, funded by the EC, OpenAIRE and CERN, enables researchers, scientists, EU projects and institutions to share, preserve and showcase multidisciplinary research results (data and publications) that are not part of existing institutional or subject-based repositories of the research communities. It provides persistent identifiers, Digital Object Identifiers (DOIs), for sharing research results.

[5] https://www.openaire.eu/
[6] http://www.zenodo.org/
[7] https://arxiv.org/

This project has received funding from the European Commission, under the Horizon Europe research and innovation programme, Grant Agreement No 101094349.
http://www.craeft.eu/

- **arXiv: e-print service**

Arxiv is an automated electronic archive and distribution server for research articles maintained and operated by the Cornell University Library.

6. Ethical aspects

In this section, we discuss ethical aspects related to the data collected and/or stored by the project. These regard the participation of humans in research, the approval of research activities by relevant ethics committees and the provisions regarding the collection of personal data.

6.1. Participation of Humans in Research Activities

Within the Craeft project, engagement with human participants beyond the Consortium members is necessary for the successful completion of the following actions:

- The digitisation of previously uninscribed elements of intangible heritage.
- The acquisition of practical insights regarding the practice of Heritage Crafts and the related dexterous activities.
- The elicitation of end-user requirements[8] for advanced digitisation will be created in the project and will be utilised in the representation of crafts.
- The evaluation of project pilot demonstrators and impact assessment of project outcomes.

Human participation regards the following research activities.

A) Organised discussion panels with the members of the consortium, as well as their participation in co-creation and impact assessment workshops. This activity regards the participation of craft practitioners and members of local craft communities.
B) Video recording and motion capture sessions.
C) Pilot evaluation sessions. This activity regards the participation of end-users of the project's demonstrators and online services.

These activities are necessary for the following reasons.

Activity A regards two necessary components of input. First, it regards the provision of insights, testimonies, or elements of the oral tradition that have not been obtained before. Second, it regards the participation of practitioners and stakeholders in the design and evaluation of project outcomes, such as craft descriptions and immersive experiences relevant to crafts. This is necessary, to ensure insightful, meaningful and high-quality results, as well as user and craft community acceptance of project outcomes.

Activity B is necessary as it regards the recording of the practice of practitioners.

Activity C regards the evaluation of project outcomes. The participation of members of the general public is necessary for the evaluation of pilot demonstrators and online services. Participation in Activity C is anonymous.

[8] Elicitation of requirements is the practice of researching and discovering the requirements of a system from users, customers, and other stakeholders.

An **informed consent procedure** will be followed when conducting workshops and digitisation of crafts.

6.2 Approval of research activities

The Craeft partners that will conduct and that will be directly involved in research activities that include the participation of humans have been identified, by the consortium. The application for ethics approval to the Research Ethics Committee (REC) of the Project Coordinator (PC) will regard the entire set of research activities that require human participation, within the Craeft project. In this application for approval, all research activities that involve human participation were thoroughly described, independently as to whether they are to be carried out or hosted by FORTH or another out of the aforementioned partners.

In this application, specific information was provided for these research activities, including a file with the informed consent forms and information sheet templates, the Grant Agreement of the Craeft project, the description of the planned human participation, and a thorough elaboration of the research activities that require human participation (in Greek). The consent forms provide information on the use and protection of personal data and information about the use and protection of the participant's data and the withdrawal options of the participants, according to the General Data Protection Regulation (EU 679/2016)[9]

The review process included one revision of the aforementioned application. The revision regarded health and safety warnings, concerning the wearable devices that will be used in the motion recordings of experts. These warnings are related to potential allergies to the Lycra, Spandex, and Memory Foam materials, from which the wearable devices are made of. The revised consent form corresponding to this activity (Activity B) contains the appropriate warnings. As Activity B includes the use of wearable devices by human participants, potential risks and health and safety warnings were provided in the corresponding forms. The consent forms and project information sheet are provided in Deliverable 10.4.

The REC of FORTH examined the information provided in the application and its revision and provided approval for the research activities of the Craeft project involving human participation. Moreover, the Project Information Sheet and the two Consent forms, have been approved for distribution at the research activities of the Craeft project. The approval document has been translated from Greek to English.

After approval by the REC of FORTH, the consent forms and project information sheet (originally in English) were translated into the Spanish, French and Greek languages for use at the local pilot sites.

In case other ethics approvals would be needed the consortium of the Craeft project is committed to requesting them before conducting the corresponding research activity.

[9] European Commission, "Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)". http://data.europa.eu/eli/reg/2016/679/oj

6.3 Collection of personal data

This section regards when and how personal data are collected and stored.

6.3.1. Collection of personal data in the context of co-creation and impact assessment

Identity data (e.g. full name, age, occupation, gender, contact details) will be collected for the study. In addition, participants will be asked to perform tasks that they usually carry out during the exercise of the craft in which they specialize. For the study, data will be collected using video and wearable devices. Selected photographs/screenshots, may be used for the communication of the study in mass media and scientific publications to inform the public and/or the scientific community. Before capturing any photographs/ screenshots, participants will be asked to give their consent vocally or their picture or other identifiable data being captured. In case they wish to opt out of the capturing, they can step away. Please note that the personal data related to video recording is handled differently, as it is a group video and it is recorded once (more in the “Right to Refuse or Withdraw” paragraph).

Data processing / Confidentiality

In the context of the study, only the personal data that is necessary for conducting the relevant research will be collected and processed through the "pseudonymization" process. Their participation in this study will remain confidential and their identity will not be stored by any means along with their replies or image/video / wearable devices’ data. Their data will receive a code number and the digital list linking their name to that number will be stored in a secure, locked digital file. When the data is used their name will not be displayed under any circumstances. The participant's data will be protected and kept safe throughout the Project. After the completion of the Project, the list linking their name to the code number of their data will be deleted. The data processing and analysis will be carried out by the processing coordinator of this study as well as by the processing coordinators of the partners. The results of the study may be published in scientific journals and conferences in an **anonymous** form.

Participation (benefits/motives)

The participation of people in this is voluntary and no financial reimbursement is provided for the volunteer participants.

6.3.2. Right to Refuse or Withdraw

As participants volunteering in the study, they are free at any time and until the end of the project to refuse to participate or withdraw their participation/consent for the data collected in the study without any adverse consequences for anyone recorded in the digital assets and without the need to justify their decision. The withdrawal of their consent shall not affect the lawfulness of processing based on consent before their withdrawal. However, they will have the right to the erasure of their data after the withdrawal of their consent.

Regarding the withdrawal of consent and the deletion of personal data related to video recording, this is not feasible according to Article 17 par.3 (d) of the GDPR. For this reason, participants will be informed and should be certain about their participation in the video in advance (it is a group video and it is recorded once).

6.3.3. Risks

Concerning the risks associated with the usage of equipment for data capturing these will be iteratively considered as new devices are introduced to the project by technical partners. In this preliminary stage of the project, the only device that is expected to be used with certainty is a motion capture suit either of the brand NanSense (owned by ARMINES) or Rokoko (Owned by FORTH). In both cases associated risks concerning the use of wearable devices are in-depth presented in the specifications and usage instructions of each device. We will follow these instructions and we make sure that the users are informed about any relevant threats (e.g. skin allergies to the fabric of the suit, etc.).

In the next version of the DMP, we expect to add further information about devices such for example custom and self-haptic devices. Currently, we do not have sufficient information on these devices.

7. Dataset structure

Craeft will follow a hierarchical organisation for the produced data sets that will result in a single large dataset for the entire project organised into sub-datasets. To do so all partners have identified the datasets that will be collected and/or generated in the different project activities. The list is provided below, while the nature and details for each dataset are given in the next sections.

This list is indicative and allows estimating the data that Craeft will produce. It may be adapted (addition/removal/modification of datasets) in the next versions of the DMP to account for the progress of the project activities.

Table 1. Craeft dataset structure.

Level	Dataset	Description of contents.
1.	Craeft	The entire collection of Craeft data.
2.	Craeft pilot – RCI [Number] – [Pilot Title]	The collection of data per RCI.
3.	RCI [1-8] - Context	The collection of contextual data per RCI.
4.	RCI [1-8] - Context representation	The collection of data for the contextual representation of the RCI (social and historical information).
4.	RCI [1-8] - Existing Digital Content	Existing content contributed by the Craeft consortium members.
3.	RCI [1-8] - Digitisation	The collection of digitisation outcomes per RCI.
4.	RCI [1-8] - 3D Digitisation	3D digitisation assets and source data per RCI.
4.	RCI [1-8] - Books-Archives	Collection of digitised books and archives per RCI.
4.	RCI [1-8] - Fieldwork_notes	Collection of digitised notes acquired during ethnographic fieldwork per RCI.
4.	RCI [1-8] - MoCap	Collection of motion recordings per RCI.
4.	RCI [1-8] - Photographic Documentation	Photographs to be acquired during the study of the RCI and ethnographic fieldwork.
4.	RCI [1-8] - Video Documentation	Video documentation of the craft during ethnographic studies.
3.	RCI [1-8] - Text-based Narratives	Compilation of the collection of knowledge per RCI in the form of fundamental text-based narratives.
3.	RCI [1-8] - Process schemas	Representation of craft processes in the form of abstracted process schemas including decision points and branching conditions.
3.	RCI [1-8] - Simulations	A collection of simulations per RCI.
4.	RCI [1-8] - Archetypal simulators	The collection of archetypal simulators that are relevant to this RCI.
4.	RCI [1-8] - Action simulators	Collection of RCI-specific action simulators.
4.	RCI [1-8] - Process simulators	Collection of RCI-specific process simulators.
3.	RCI [1-8] - New Designs and products	A collection of created new designs and products per RCI.

3.	RCI [1-8] - Games – Toys	A collection of games and toys for introducing the specific RCI.
3.	RCI [1-8] - Community	The collection of data contributed by Craeft to the online community.
4.	RCI [1-8] – Community - Craft education & training	A collection of data on “Craft education & training” shared with the community regarding the specific RCI.
4.	RCI [1-8] – Community - Valorisation, Branding, Reputation	A collection of data on ”Valorisation, Branding, Reputation”. This will be shared with the community regarding the specific RCI.
4.	RCI [1-8] – Community – Online preview	The collection of data on ”Online preview” of products and services shared with the community regarding the specific RCI.
4.	RCI [1-8] – Community - New technologies, new products	The collection of data on “New technologies, new products”. This will be shared with the community regarding the specific RCI.
4.	RCI [1-8] – Community - Awareness and promotion of European Crafts and Identity	The collection of data on “Awareness and promotion of European Crafts and Identity”. This will be shared with the community regarding the specific RCI.
3.	RCI [1-8] - Education and Training	The collection of education and training material per RCI.
3.	RCI[1-8] - Communication material	The collection of Communication material per RCI.
3.	Craeft Authoring Platform – RCI [1-8] – [Pilot Title]	The collection of CAP content per RCI.

8. Definition of Craeft datasets

8.1. Craeft pilot – RCI [Number] – [Pilot Title]

In this section, the high-level dataset structure for the storage of data regarding each Craeft pilot is presented.

DMP Component		Issues to be addressed
Dataset reference and name		Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:** • **Craeft pilot - RCI1 – Glass** • **Craeft pilot - RCI2 – Porcelain** • **Craeft pilot - RCI3 – Clay** • **Craeft pilot - RCI4 – Marble** • **Craeft pilot - RCI5 – Woodcarving** • **Craeft pilot - RCI6 – Silver** • **Craeft pilot - RCI7 – Aubusson tapestry** • **Craeft pilot - RCI8 – Cotton textiles**
Data summary		**Purpose:** This dataset contains the entire set of data for each corresponding pilot site. **Collection process:** This is a group of datasets instantiated for each pilot site. **Storage:** data will be stored following the provisions described by "Section 2.5. Data storage". **Data Source & Owner:** Craeft Consortium. **Data Size (expected):** 1 TB per pilot site.
FAIR data	Making data findable, including provisions for metadata.	This dataset will be made findable following the genera provisions described in section 3.1. Making data findable, including provisions for metadata.
	Making data openly accessible.	This dataset will be made openly accessible following the general provisions described in section 3.2. Making data openly accessible.
	Making data interoperable.	This dataset will be made interoperable and accessible following the general provisions described in section 3.3. Making data interoperable.

	Increase data reuse.	This dataset will be made reusable following the general provisions described in section 3.4. Increase data re-use.
Allocation of resources		**Cost for Open Access:** Open access has been agreed upon by the Craeft consortium in the CA and no additional Open Access costs are foreseen. **Cost for Long-Term Preservation:** FORTH as the coordinator of the Craeft project will guarantee long-term preservation of the project data for at least 3 years after the end of the project by maintaining both the Craeft Online Platform and the Fedora platform for at least three years. Both will be hosted by FORTH's data centre in dedicated VMs.
Data security		Data will be available for internal purposes within the consortium. **Data at rest:** data will be stored following the provisions described in "2.5. Data storage" and following the Data Security rules described in Section 4. **Data in transit:** secured data transfer mechanisms will be used. Data transferred will be encrypted following the Data Security rules described in Section 4. **Data in use:** local copies of data could be created only for data analysis and development purposes. **Data anonymization:** Personal data included when processing expert consultations, and video documentation. Personal data will only be processed where it is necessary for the project, and in those cases, it will be processed in full compliance with all applicable legislation. Generally, informed consent under the GDPR will be the legal basis for processing. Data will be pseudonymised and anonymised at the earliest possible stage.
Ethical aspects		In conformance with the ethical aspects presented in Section 6.

8.1.1. RCI [1-8] - Context

In this section, the dataset structure for the storage of data regarding contextual information for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:** • **RCI [1-8] - Context representation:** Basic craft knowledge elements that include curated information about an element of knowledge and links to digital assets that record it. Knowledge elements are instantiated through knowledge statements. Examples are Materials, Objects, Places, Persons and groups, Events, etc. • **RCI [1-8] - Existing Digital Content:** All forms of pre-existing documentation of the RCI.
Data summary	**Purpose:** Study the social and historical context of each RCI. **Collection process:** • Basic orientation on the topics of the craft instance, the community, and the location. • Study of Literature regarding the RCI. • Digital assets in online repositories. • Study of curated material on expressions of the craft or similar expressions of that craft in other places and times. • Consultation of local experts. **Data types:** Digital text, photographs, and video files that when formalised are capable of representing: • A timeline of craft history, representing its origins, its technical evolution, as well as its aesthetical evolution in terms of art and design history. • Historic figures, events, and objects that are of historical significance to the expression of a craft in a local community. • A collection of stories and reference artefacts that illustrate and contextualise the expression of a craft over time.

8.1.2. RCI [1-8] - Digitisation

In this section, the dataset structure for the storage of digitization outcomes for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:**

	• **RCI [1-8] - 3D Digitisation:** Surface scanning technologies have contributed to the digital documentation and 3D representation of CH monuments and artefacts. Besides preservation, the significance of accurate digitisation is of service to the physical **conservation** of artefacts and monuments. • **RCI [1-8] - Books-Archives:** Documents scanned with a flatbed or book scanner; photographs of fragile documents acquired using a full-frame DSLR camera. • **RCI [1-8] - Fieldwork_notes:** Digitised hand notes and digital notes taken during ethnographic fieldwork. • **RCI [1-8] - MoCap:** Motion Capture (or MoCap) technologies measure the movement of subjects in three dimensions, based on wearable markers whose location in 3D is estimated by corresponding sensors. As such, the resulting data are not necessarily intuitive to visualize without some post-processing. Two main technologies are used, optical-based MoCap, and inertial measurement units (IMU) MoCap. Unlike normal video, MoCap directly extracts position information of human motion. The results encapsulate human motion in 3D with great detail and therefore show a complete representation of the recorded motion. • **RCI [1-8] - Photographic Documentation:** One of the oldest but still heavily used non-destructive imaging approaches is photography. In the field of archaeology, for instance, photography has been incorporated into archaeological practice for at least a century, primarily because it is assumed to provide an "objective" pictorial record. • **RCI [1-8] - Video Documentation:** Ethnographic documentation of the practitioner's action during the execution of crafting scenarios of the RCI.
Data summary	**Purpose:** We consider as **physical assets** the objects and events, of which we wish to have **recordings**. Examples of physical assets are a pot, the brush used to decorate it, the soil, clay, and paint utilised, the stool and the wheel of the potter (which, actually has a treadle too). In addition, we also consider as a physical asset the measurable physical events related to the transformation of soil into the artefact. **Collection process:** Targeted 3D Digitisation, 2D digitization, photographic documentation MoCap acquisition, and Video documentation per RCI. **Data types:** • **STL** encodes the surface geometry of a 3D model approximately using a triangular mesh. • **OBJ** format supports both approximate and precise encoding of surface geometry. • **GLB** is the binary file format representation of 3D models saved in the GL Transmission Format (glTF). Information about 3D models such as node hierarchy, cameras, materials, animations and meshes in binary format. • **BVH** as a tree structure on a set of geometric objects for modelling MoCap data.

	• **JPG** for photographic documentation. • **MPG4** for video files.

8.1.3. RCI [1-8] - Text-based narratives

In this section, the dataset structure for the storage of text-based narratives for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	The rationalisation of the collected knowledge is encoded in the form of text-based narratives. **The following datasets will be implemented:** **RCI [1-8] - Text-based Narratives**
Data summary	**Purpose:** The narratives facilitate the outcomes of knowledge collection activities that include the contextual information — historical, economic, societal, traditional, gender roles, teaching methods etc. — relative to the RCIs targeted by Craeft. Text-based narratives are important because they: (a) facilitate the task of knowledge insertion in the knowledge model, (b) allow linking the craft to the threads and shreds of history, (c) lead to the emergence of new links between the craft and its contextual knowledge and (d) provide guidance regarding the need of further or targeted knowledge collection activities. **Collection process:** Text-based narratives are created by experts in the field with the initial objective of bounding the collected information with historical, societal, economic, and traditional contexts, to produce textual descriptions of narratives that relate to the targeted RCIs. This process aims to gather the information related to the RCI and to facilitate it to create narratives on different topics rooted in the question “What Makes Craft Unique?”. A complete answer to this question leads to the cultural significance, unique aspects, knowledge, craftspeople, and future perspective of the craft and complements the knowledge collection activities with further questions and research directions. **Data types:** Text, supported by digital assets.

8.1.4. RCI [1-8] - Process schemas

In this section, the dataset structure for the storage of process schemas for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:**

	RCI [1-8] – Process schemas: A process schema encodes the actions to be performed to execute a particular crafting process. Examples of schemas are wedding ceremonies, recipes, or soccer games. A defining feature of crafting process schemas is that they contain branching points in their workflow. The decision to take one action or another relies on the judgment of the practitioner and can be influenced by a range of factors. Visual, unambiguous, and formal encoding of schemas is borrowed from UML activity diagrams to unambiguously encode process schemas. The visual nature of activity diagrams facilitates the collaboration between technical and heritage partners.
Data summary	**Purpose:** The documentation of crafting processes **Collection process:** • Ethnographic studies identify and describe the activity of a social unit as the "textual construction of reality". • Collection of digital assets, upon the endurant and perdurant components of the crafting process. • Formulation of workflows, in the form of activity diagrams. **Data types:** Visual renderings of process schemas.

8.1.5. RCI [1-8] - Simulations

In this section, the dataset structure for the storage of simulation data for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Understanding a cognitive process means being able to recreate or simulate it. Craeft will create a craft-specific simulator, based on generative a set of adaptive archetypal action simulators. **The following datasets will be implemented:** • **RCI [1-8] - Archetypal simulators.** • **RCI [1-8] - Action simulators.** • **RCI [1-8] - Process simulators.**
Data summary	**Purpose:** • **Archetypal** simulators will digitally re-enact the basic classes of actions, abstracting mechanics via computational modelling of operation principles of (1) Add/Subtract by Constructive Solid Geometry, (2) Interlock by Knot/Textile Algebras, and (3) Free-form by mass-preserving, free-form 3D and 2D transforms.

	• **Action simulators** visualise techniques, enable modulation of action parameters, space and time, offer inventories of tools, and predict the results of the action on the material. • **Process simulators** will organise actions and bring together partial results, considering fabrication constraints (e.g. order, concurrency, decision points) and spatial constraints of the workshop. **Collection process:** Data will be collected during the development of the simulators including various versions while generative data will be stored by the simulators and extracted to enrich the dataset. **Data types:** • **Initialisation data:** 3D models of tools machines equipment, mesh geometries for materials, 3D models of the human anatomy or parts of the human anatomy, 3D model compilation of the workshop, simulation data for fundamental actions per material, action, and tool. • **Generative data:** By-products of the simulators stored for further analysis and study. • **Compiled data:** Executables of the simulators.

8.1.6. RCI [1-8] - New Designs and products

In this section, the dataset structure for the storage of new designs and products for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Craeft will support the development of new ideas, techniques, styles, and designs, first in realistic simulation (as a 'sketch') and then in the workshop, thus reducing experimentation costs. **The following datasets will be implemented:** **RCI [1-8] - New Designs and products.**
Data summary	**Purpose:** Craeft will provide computer-aided digital design and fabrication. As a result, it will create a dataset of new creative designs and products to be shared with the community, reused in the context of new creative designs and preserved as part of Craeft's legacy. **Collection process:** The outputs of the Design studio will be stored in local storage and exported to implement the dataset after their careful validation with the support of craft experts.

	Data types: Various data types for designs and products including 3D models, 3D models suitable for 3D printing, 2D patterns for laser engraving or CNC milling, supporting documentation, etc.

8.1.7. RCI [1-8] - Games – toys

In this section, the dataset structure for the storage of the designed games and toys for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	**Games and Toys** will be designed and developed in **Design Studio** either simplified for younger audiences or designed to engage creative activities for elders. **The following datasets will be implemented:** **RCI [1-8] - Games – Toys.**
Data summary	**Purpose:** The digital blueprints of these toys are valuable and should be preserved to be marketed in printable formats as electronic products. **Collection process:** During the pilots, one of the activities will be the collection of these designs for each pilot site together with their documentation material and digital assets to be preserved following the DMP. **Data types:** Various data types including 3D models, 3D models suitable for 3D printing possibly segmented into smaller parts that can be combined with other equipment, 2D patterns for laser engraving or CNC milling, supporting documentation, documentation of construction process, game instruction manuals, etc.

8.1.8. RCI [1-8] - Community

In this section, the dataset structure for the storage of community data for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:** • **RCI [1-8] – Community - Craft education & training.** • **RCI [1-8] – Community - Valorisation, Branding, Reputation.** • **RCI [1-8] – Community – Online preview.** • **RCI [1-8] – Community - New technologies, new products.** • **RCI [1-8] – Community - Awareness and promotion of European Crafts and Identity.**
Data summary	**Purpose:** Collect and preserve the following assets.

	• multimodal technique demonstrations, instructions, technical assistance, remote tutoring, exercises, design inventories, activities for young members with appropriate, simplified introductory content, serious digital games, safe, printable toys and DIY illustrated instructions. • Individual product registration (artefacts & digital assets), personal portfolios, personal pages that register certificates & credentials, practitioner interviews & masterclasses, and reputation building. • Realistic 3D and environment-embedded (AR/VR) previews of products. • Serious games (digital), toys (physical) for young age and life-long learning, an association of digital dimensions to individual artefacts. • a preliminary inventory regarding all eight RCIs and all UNESCO-inscribed European crafts, moderated content collections, digital exhibitions, technology, identity, and values, History of Art and Art movements, identification of communities that developed techniques and designs and traditions, memories, and values, and highlight common European culture due to crafts. **Collection process:** The collection process will run in parallel with the formulation of the community to collect all the Craeft-created assets. During running the community only assets with sufficient IPR rights for reuse will be collected. Individual contributions to the community with restricted access rights will not be collected and maintained only as part of the community infrastructure. **Data types:** Almost every type of digital asset will be part of this dataset including multimodal 3D objects, 2D visual data formats, text files, specialised data types for additive manufacturing technologies, web pages, multimodal web documents, animated images, etc.

8.1.9. RCI [1-8] - Education and training

In this section, the dataset structure for the storage of education and training data for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data regarding Craeft's immersive vocational training systems with haptic interaction for tactile sensing and actuation. **The following datasets will be implemented:** **RCI [1-8] - Education and Training.**
Data summary	**Purpose:** The data used in this dataset will be facilitated for: • creating training exercises in immersive simulation to train attention and interpretation of stimuli. Simulations will accustom the user to the audio environment ("soundscape") of workshops, where noise is often present.

	• Developing actuation, coordination, and synchronisation skills, through opportunities for repeated practice, particularly for free-hand operations. • Creating co-presence environments shared by the instructor and apprentice. As such their preservation is important for supporting the exploitation of project outcomes and fostering the development of new education and training applications and services. **Collection process:** Continuous during the project with emphasis on the delivery of the education and training tools and their usage during the pilots. **Data types:** A plethora of data types will be collected starting from training data, training assets and education material, data for the initialisation of the training simulators, soundscapes, and haptic interaction initialisation data for performing real-time actuation with haptic devices. Additional data types may regard data for statistical analysis of the education and training process per anonymised participant.

8.1.10. RCI [1-8] - Communication material

In this section, the dataset structure for the storage of communication material for each Craeft RCI is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:** **RCI [1-8] - Communication material**
Data summary	**Purpose:** Maintain central storage for all the Communication material of the project. **Collection process:** Continuous during the project with the support of the partner responsible for Communication. **Data types:** Various data types based on the type and form of communication including audiovisual material.

8.1.11. RCI [1-8] – Craeft Authoring Platform

In this section, the dataset structure for the storage of data from the Craeft Authoring Platform is presented.

DMP Component	Issues to be addressed
Dataset reference and name	Contains the collection of semantic knowledge for the entire project and all pilot sites

	The following dataset will be implemented: • **RCI1 – Craeft Authoring Platform.** • **RCI2 – Craeft Authoring Platform.** • **RCI3 – Craeft Authoring Platform.** • **RCI4 – Craeft Authoring Platform.** • **RCI5 – Craeft Authoring Platform.** • **RCI6 – Craeft Authoring Platform.** • **RCI7 – Craeft Authoring Platform.** • **RCI8 – Craeft Authoring Platform.**
Data summary	**Purpose:** This dataset contains data stored in the Craeft Authoring Platform per RCI. **Collection process:** Data will be collected by WP1 and WP2. **Data types:** Various data types from all other datasets.

8.1.12. RCI [1-8] – Craeft website

In this section, the dataset structure for the storage of data from the Craeft website is presented.

DMP Component	**Issues to be addressed**
Dataset reference and name	Contains the collection of assets contributed to the website of the project per RCI. **The following dataset will be implemented:** • **RCI1 – Craeft Website.** • **RCI2 – Craeft Website.** • **RCI3 – Craeft Website.** • **RCI4 – Craeft Website.** • **RCI5 – Craeft Website.** • **RCI6 – Craeft Website.** • **RCI7 – Craeft Website.** • **RCI8 – Craeft Website.**
Data summary	**Purpose:** This dataset contains data stored on the Craeft website per RCI. **Collection process:** Data will be collected by WP1 and WP2. **Data types:** Various data types from all other datasets.

8.2. Craeft documents

In this section, the dataset structure for the storage of Craeft documents is presented.

DMP Component	Issues to be addressed	
Dataset reference and name	Contains the entire set of data for each corresponding Craeft pilot. **The following datasets will be implemented:** • **Craeft - Deliverables** • **Craeft – Dissemination material** • **Craeft – Meetings** • **Craeft – Project Management** • **Craeft – Project Reviews**	
Data summary	**Purpose:** This dataset contains dissemination and communication materials, project reporting and deliverables and administrative documents on project management project meetings and reviews. **Collection process:** Generated by all activities and WP of the project. Main data collection and classification were done by the project coordinator. **Storage:** data will be stored following the provisions described by "Section 2.5. Data storage". **Data Source & Owner:** Craeft Consortium. **Data Size (expected):** maximum of 1 TB. **Data types:** Text and multimodal text documents, word files, audiovisual material, spreadsheet files, etc.	
FAIR data	Making data findable, including provisions for metadata.	This dataset will be made findable following the general provisions described in section 3.1. Making data findable, including provisions for metadata.
	Making data openly accessible.	This dataset will be made openly accessible following the general provisions described in section 3.2. Making data openly accessible.
	Making data interoperable.	This dataset will be made interoperable and accessible following the general provisions described in section 3.3. Making data interoperable.
	Increase data reuse.	This dataset will be made reusable following the general provisions described in section 3.4. Increase data re-use.
Allocation of resources	**Cost for Open Access:** Open access has been agreed upon by the Craeft consortium in the CA and no additional Open Access costs are foreseen.	

	Cost for Long-Term Preservation: FORTH as the coordinator of the Craeft project will guarantee long-term preservation of the project data for at least 3 years after the end of the project by maintaining both the Craeft Online Platform and the Fedora platform for at least three years. Both will be hosted by FORTH's data centre in dedicated VMs.
Data security	Data will be available for internal purposes within the consortium. **Data at rest:** data will be stored following the provisions described in "Section 2.5. Data storage" and following the Data Security rules described in Section 5. **Data in transit:** secured data transfer mechanisms will be used. Data transferred will be encrypted following the Data Security rules described in Section 5. **Data in use:** local copies of data could be created only for data analysis and development purposes. **Data anonymization:** Personal data of consortium members included when needed for administrative and project management purposes. No other personal data is included.
Ethical aspects	In conformance with the ethical aspects presented in Section 6.

8.3. Craeft Library

In this section, the dataset structure for the storage of the Craeft library is presented.

DMP Component	**Issues to be addressed**
Dataset reference and name	Contains the entire set of literature collected and analysed in the context of the Craeft project. This dataset will be maintained internally in Craeft for scientific purposes. The following datasets will be implemented: **Craeft – Library**
Data summary	**Purpose:** This dataset contains existing publications in all Craeft related science fields. **Collection process:** Contributed by all project partners. **Storage:** data will be stored following the provisions described by "Section 2.5. Data storage"

	Data Source & Owner: Craeft Consortium **Data Size (expected):** maximum of 100 GB **Data types:** PDF and Docx files.

9. Craeft collaboration platform

The Craeft collaboration platform is accessible only to partners of the consortium (https://cloud.craeft.eu/). It is implemented on the Nextcloud suite, which is a client-server software for creating and using file hosting services.

This platform will serve the consortium members for internal communication activities and will contain documentation of material up to, and including, Confidential (CO) dissemination level. The home page of the platform is presented in Figure 1. All members of the Project Steering Board have received their confidential credentials for access to the platform (see Figure 2).

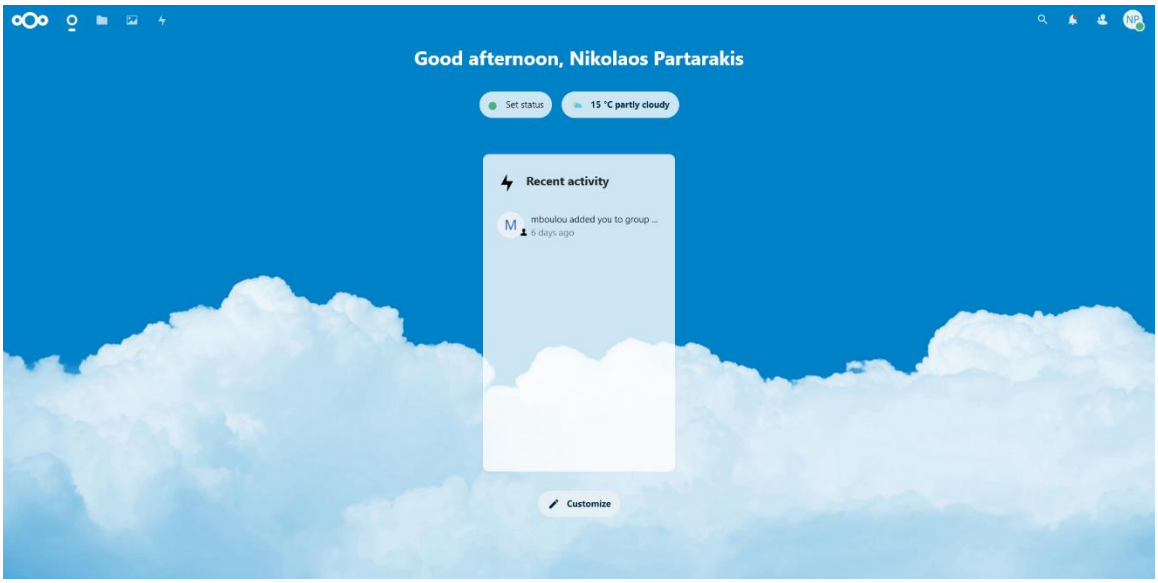

Figure 1. Craeft collaboration platform login page.

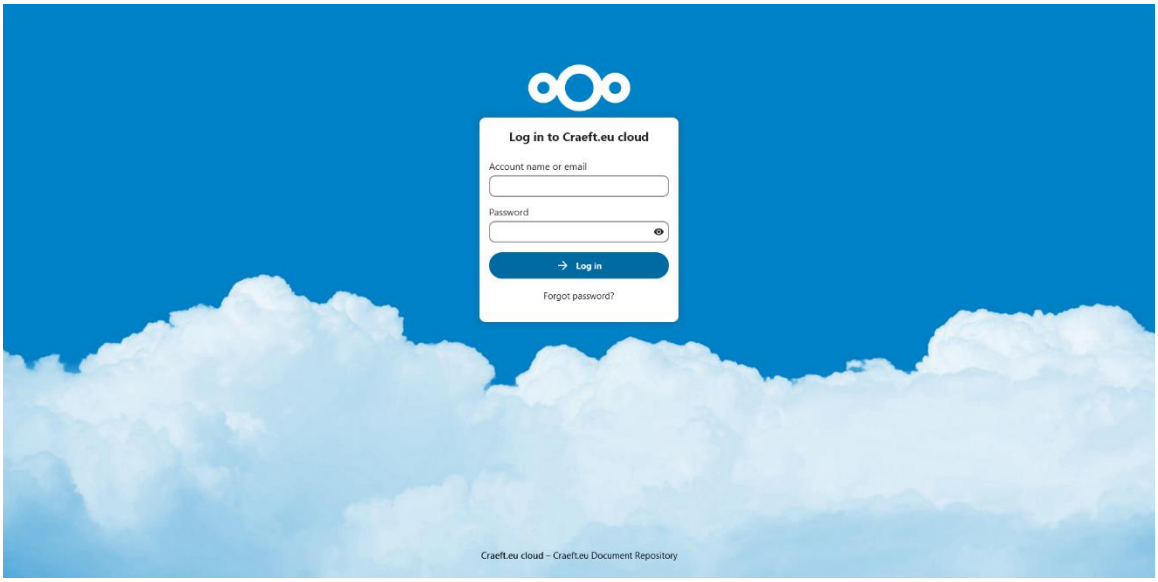

Figure 2. User home page.

The Craeft Collaboration Platform comprises several modules that serve the distinct needs of the project. The remainder of this deliverable section reports on the modules of the Craeft Collaboration Platform.

9.1 File sharing

This module is a Document Management System which acts as a single point of access for all project partners. In this module, all the deliverables, newsletters, meeting information, minutes, etc. are organised and stored together (see Figure 3). The filing procedures followed by the project, require also storing all the intermediate versions to provide versioning of deliverables.

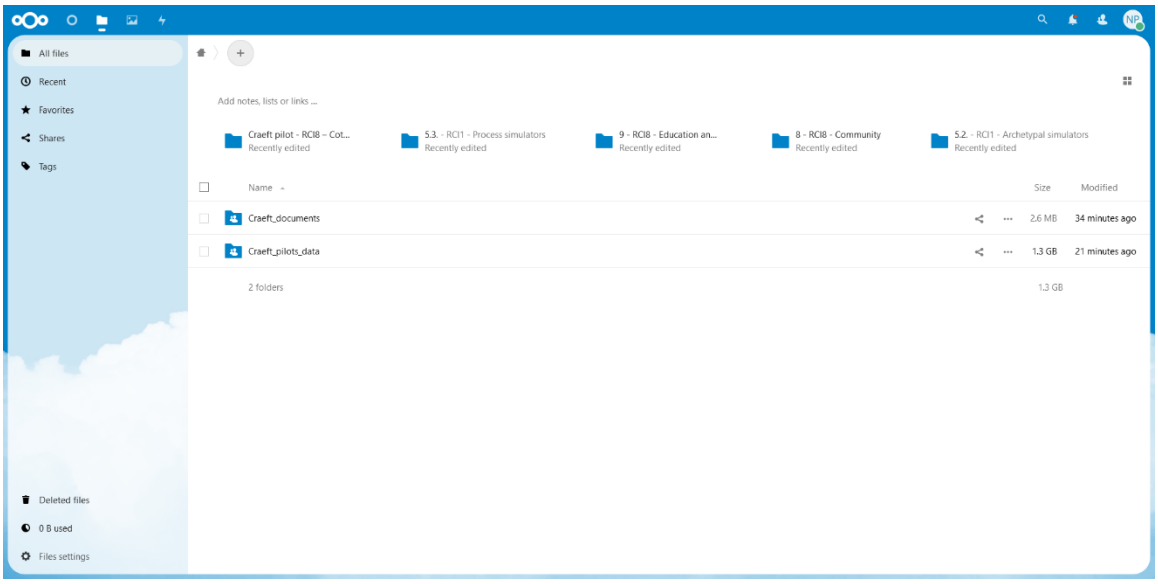

Figure 3. Shared file system.

9.2 Dissemination material

The Dissemination module offers repository space and organization for project assets, such as videos (e.g. documentaries, archives, etc.), images (e.g. meetings, recording sessions, etc.), scanned documents, 3D reconstructions, motion capture data, etc (see Figure 4). This module will be used by project partners as a pool of information and content for dissemination purposes. Furthermore, it will provide a repository of raw material for digitization operations (e.g. distribution of raw video files to partners performing motion tracking operations).

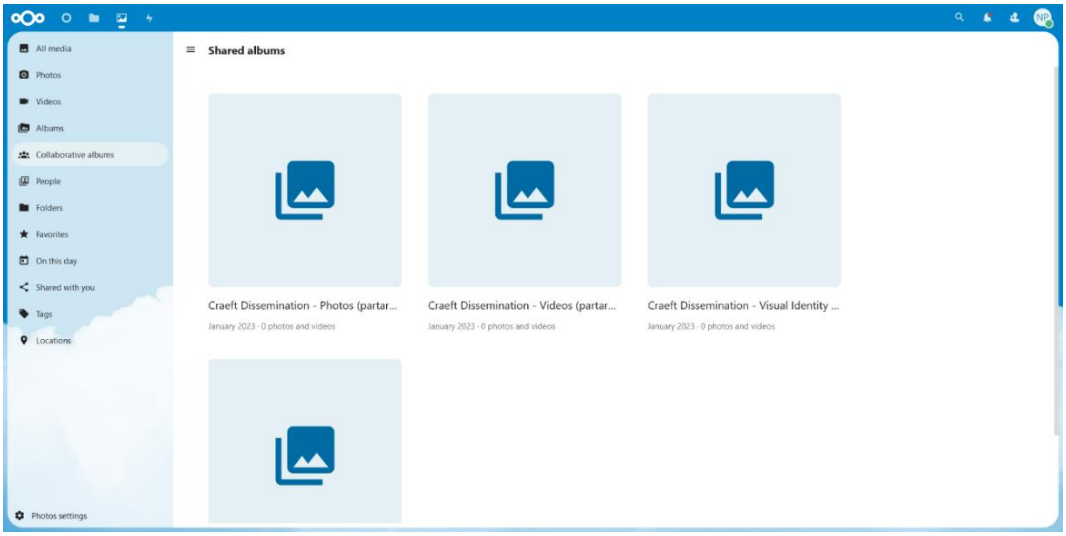

Figure 4. Dissemination material.

10. Other collaboration platforms

To further support the day-to-day collaboration between Craeft partners a few additional tools are integrated into the project's collaboration suite. This section outlines the use of Google Docs, Slack, and Zoom as tools for enhancing collaboration, communication, and operational efficiency within our research project.

Our project has adopted three tools to streamline our processes, foster effective communication, and facilitate seamless collaboration among team members across various locations.

10.1. Google Docs

Google Docs is a cloud-based document editing and sharing service that allows multiple users to collaborate on documents in real-time. This tool has been instrumental in authoring our project reports, ensuring that all team members can contribute, edit, and provide feedback simultaneously, regardless of their physical location.

The features we use are as follows:

- Team members work on the same document at the same time, making real-time contributions and revisions. This feature has significantly reduced the time required for drafting, reviewing, and finalizing reports.
- Google Docs maintains a version history, enabling us to track changes, revert to previous versions if necessary, and understand each contributor's input over time.
- The commenting and suggestion features facilitate constructive feedback and discussions directly within the document, streamlining the review process and enhancing the quality of our reports.

10.2. Slack Workspace

Slack is a communication platform designed for teams, providing organized spaces called channels for discussions, file sharing, and collaboration on specific topics or projects.

We use it as follows:

- We have set up specific channels for various aspects of the project, such as data analysis, literature review, and methodology discussions. This organization keeps our conversations focused and accessible.
- Slack integrates seamlessly with many other tools we use, including Google Docs and Zoom, allowing us to share documents and schedule meetings directly within the platform.
- Slack facilitates direct messaging and group conversations for more targeted discussions, enabling efficient resolution of specific technical queries or issues.

10.3. Zoom

Zoom is a video conferencing tool that supports virtual meetings, webinars, and collaborative sessions. It has become a cornerstone for our project coordination, especially for conducting bi-weekly meetings.

We use Zoom to host our regular project meetings, where we discuss progress, address challenges, and plan future actions. These sessions help us maintain alignment and momentum within the team.

Zoom's screen-sharing feature allows presenters to share their screens during meetings, facilitating detailed discussions on data, reports, and strategies.

During our meetings, we collaboratively keep minutes on the following Google document: https://docs.google.com/document/d/1-yhyvVo853anO_EYpSj4MW95qCUHeySZvLIUkv1TZ9c/edit?usp=sharing

11. Data collected until M12

Following the DMP, the data shared among the consortium have been stored in the following platforms.

The first is the Craeft collaboration platform described in Section 9. All partners have credentials to access this platform, through a DPO per partner that is authorised to access it. This platform is mainly used to exchange data among partners.

The second is the RAID data storage at the premises of FORTH described in Section 2.5. The data are organised there as described in Section 7. This storage is not connected to the Internet and is backed up using the RAID infrastructure. In addition, these data are backed up in external hard drives stored at a different location within FORTH.

The third is the CAP which stores craft representations, media objects, and meta-data. The CAP is described in D1.2. It is implemented on a VM at FORTH which is backed up every week. It is noted that CAP is a linked repository and only media objects that are created in Craeft are stored in its repository. A large number of media objects are presented by linking them to open online resources such as Europeana, Wikidata, Zenodo, etc. The table below counts the items currently (18 January 2024) in the platform.

Table 1. Media objects and knowledge entities in the CAP.

	Glass	Porcelain	Clay	Marble	Wood	Silver	Tapestry	Textiles
3D Models	117	0	0	1	0	0	0	93
3D Motions	140	0	0	0	0	0	0	43
Embedded Videos	1	0	5	0	1	0	0	58
Events	376	106	76	100	144	108	220	1044
Fabulae	4	3	3	3	2	3	2	17
Images	889	65	106	111	96	91	126	3169
Locations	34	18	13	14	25	33	23	136
Materials	8	11	9	5	6	8	7	43
Narratives	4	1	3	2	2	3	2	17
Persons	29	8	3	15	17	6	35	142
Process Schemas	3	1	1	1	1	1	1	2
Processes	2	1	1	1	1	1	1	2
Products	8	1	0	1	15	0	0	326
Social Groups	18	9	10	4	14	20	2	18
Tools	29	12	17	17	22	17	12	34
Videos	230	0	0	0	0	0	0	27

Data shared publicly are stored in Zenodo and added to the OpenAIRE and Craeft communities on this platform. In addition, they are linked to Craeft through the funding metadata that the Zenodo platform offers. In this way, these datasets appear in the Participant Portal under Craeft. Currently, there are 12 such datasets. Currently, all of these datasets are images and 3D models of craft artefacts and workspaces. No datasets currently exist in which humans are recorded. These datasets are reported below in the list, along with their DOIs.

- Digitisation of traditional textiles and their designs: 10.5281/zenodo.10276954,

- Demonstration data supporting the publication of a close-range photogrammetric scanner developed and published: 10.5281/zenodo.8163499, 10.5281/zenodo.8163499
- 3D digitisations of traditional, handcrafted dresses, shoes, handbags, and fabrics. These items are manufactured during the 21st century following traditional manufacturing methods and utilising designs and motifs from Greek antiquities: 10.5281/zenodo.8098709, 10.5281/zenodo.8100830, 10.5281/zenodo.8098819, 10.5281/zenodo.8409134, 10.5281/zenodo.8337684, 10.5281/zenodo.8176947, 10.5281/zenodo.8321918.
- Photorealistic reconstructions and video presentations of Greek antiquities (Palace of Malia and Palace of Knossos) from which the dresses above have been inspired: 10.5281/zenodo.7767023, 10.5281/zenodo.7756574

During the first year of the Craeft, we collected ethnographic data in the form of recordings and interviews. Recordings took place at the following sites.

- CERFAV (Glass)
- CETEM (Wood)
- PIOP at Ioannina (Silver)
- PIOP at Tinos (Marble)
- CNAM at Limoges (Porcelain)
- CNAM at Aubusson (Wool)

The collected data are comprised of video, audio, and images. The videos are recordings of craft practice and interviews. The images capture craft artefacts, craft tools and machines, craft practice, and craft workspaces.

Videos with interviews contain the faces of the persons speaking.

In some cases the videos are dual, meaning that they are synchronously acquired from two viewpoints. The first video is acquired from a static viewpoint that observes the workspace. In this case, the video camera has been mounted on a tripod. This type of video is focused on the working activity and the hands of the person. It may contain images of the person's face but it is not intended to do so, neither the face of the person is of interest to us. The second video is acquired by a camera that is mounted on a headset that the practitioner wears. The acquired video shows a first-person, or "egocentric" recording of the activity and contains mainly the interaction of the practitioner's hands with the tools and materials. The second type of video does not contain any faces at all.

These data are currently stored in the RAID infrastructure of FORTH.

In all of the recordings, the practitioner signed an informed consent form in their native language. The consent form templates can be found in Appendix A.

Up to the date of writing this deliverable 15 consent forms have been collected.

Appendix. Project Information Sheets and Consent Forms

This appendix is formatted as a booklet that serves practical purposes and in particular the in-the-field researchers who need to print the simplest kind of printer the project information sheet and the informed consent form required for collecting human participant data, as prescribed by the Ethics evaluation of the Craeft RIA.

English (ENG)

Please do not print this page.

Project: "CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity" (Grant Agreement Number: 101094349) funded under Horizon Europe

Project duration: 36 months

Starting date: 1st March 2023.

Ending date: 27th February 2026.

Project Coordinator: Xenophon Zabulis (FORTH)

Project Description

CRAEFT will deepen our understanding of making activities that include care, judgement, and dexterity standing on Anthropology, Knowledge Representation, Cognitive Science, Art History, Advanced Digitisation, Audiovisual & Haptic Immersivity, and Computational Intelligence to cover the multifaceted expression of crafts as living and developing heritage, as a sustainable source of income, and as the expression of the mind through imagery, technology, and sedimented knowledge. CRAEFT will catalyse craft education and training with intuitive digital aids, telecommunications, craft-specific simulators, advanced immersivity, and high-end digitisation, to widen access, economise learning, increase exercisability, and relax remoteness constraints in craft learning. The integration of haptics intelligence haptics in digital design connects tacit knowledge in computer-aided craft-specific design tools. Workflow simulation will support experimental archaeology for the recovery of lost techniques. The analytic workflow analysis leads to material savings and reuse, and a reduction of energy consumption. Digital conservation and reenactable preservation will avoid possibilities to be neglected and inferior forms of craftmanship to be taken for granted.

Project objective

The scientific core of this application is the generality of understanding the making process, as the purposeful interaction of the mind with the world through senses and actions. Formal representation of knowledge is essential for reenactable preservation, but also computational understanding of human creative tasks, enabling us to provide more specific tools for its aid. Generative, realistic reenaction (simulation) and simulated imagery allow us to assess the correctness of the representation of elusive concepts such as tacit knowledge. Craft-specific simulation is a powerful tool for learning but also for optimising workflow efficiency. Knowledge representation will be validated by pilots in eight sites (Germany, France, Spain, and Greece) that serve as proof-of-concept and demonstrate their value in use and exploitation by stakeholders.

Activities involving participants external to the Consortium partners

The overall implementation approach adopted by CRAEFT is based on best practices in User-Centered Design (UCD) as advocated by the ISO standard 13407. Using this methodology, relevant stakeholder groups (i.e., Museums & CH institutions, curators, CH professionals, museum educators, researchers, craft practitioners, tourism professionals, visitors and tourists, etc.) will participate in all CRAEFT phases, including staff from each partner organization, as well as representatives of the stakeholder groups. The UCD methodology and approach followed will be further enhanced for involving end-users along with all

groups of relevant stakeholders toward the co-design and co-development of all project results (end-users, museum personnel, curators). End-users will be reached through connections provided by the academic partners and CHIs of the consortium. Three pilot sites will be involved in CRAEFT's activities involving internal and external participants. These are Germany, France, Spain, and Greece.

End-users will be involved in the following activities:

1. *Video, audio, and motion recording of experts:* Experts' gestural know-how will be recorded and digitised with the use of high-precision motion capture and high-fidelity audio/video technologies.
2. *Evaluation:* All applications in the pilot sites will be evaluated with actual visitors during the pilot period to assess usability and user experience.

In the context of the above research activities, the personal data of the external participants will be collected and processed using a combination of any of the following methods (depending on the particular requirements of each study):

- Questionnaires
- In-situ observations
- Interviews
- Video recordings and body movement sensor recordings
- Audio recordings

In the case of the evaluation of the produced applications in the pilot sites with actual visitors, no personal data will be collected. All information will be collected anonymously.

FORTH will not conduct any of the above research activities involving external participants on its premises or elsewhere and thus will not collect any personal data during the project. In addition, FORTH as the Coordinator of the project will prepare and provide all partners with User Consent Form templates to be followed for their respective research activities. The templates have been reviewed by FORTH's DPO. Each partner is responsible for translating the form into their language and making any needed adjustments following their national laws and regulations.

Informed consent Form to participate in research activities of the Project

"CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity"

Please read carefully this document before you sign

Data Controller

Foundation for Research and Technology Hellas (FORTH), N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece.

Scientific Coordinator / Contact Details

Dr. Xenophon Zabulis, Principal Researcher, at the Institute of Computer Science (ICS) of the Foundation for Research and Technology - Hellas (FORTH), email: zabulis@ics.forth.gr, tel. +302810391696, address: Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece.

Key information about the Project:

Call: HORIZON-CL2-2022-HERITAGE-01. Type of Action: HORIZON-RIA. Acronym: Craeft. Contract Number: 101094349. Duration: 36 months. Start Date: 01 Mar 2023.

Data collected by:

Name	Signature, date

Project Coordinator: Foundation for Research and Technology – Hellas (FORTH)

Funding Program: Horizon Europe

Website and contacts of the project: http://www.craeft.eu/

Description of the Research Project

This study is conducted in the context of the project “CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity”, which has as a goal to catalyse craft education and training with intuitive digital aids, telecommunications, craft-specific simulators, advanced immersivity, and high-end digitisation, to widen access, economise learning, increase exercisability, and relax remoteness constraints in craft learning. The project lasts 3 years and is funded by the European Commission (contract no. 101094349), within the context of the Horizon Europe programme. There are 10 participants from 7 European countries and in particular:

- Foundation for Research and Technology Hellas
- Consiglio Nazionale delle Ricerche
- Association pour la Recherche & Développement des Méthodes Industriels
- Khora ApS
- Furniture and Wood R&D centre
- Conservatoire National des Arts et Métiers
- Piraeus Bank Group Cultural Foundation
- Centre Européen de Recherches et de Formation aux Arts Verriers
- Mad’ In Europe
- Eidgenössische Technische Hochschule Zürich

More information can be found at the project website: http://www.craeft.eu/

Purpose of the study and of data collection

The purpose of this study is the recording of motions of specialized practitioners in the domain of heritage crafts. The information that will be collect will help to determine an open library of motions and gestures which will be developed in the context of the Project.

Personal Data

Identity data (e.g. full name, age, occupation, gender, contact details) will be collected for the purposes of the study. In addition, you will be asked to perform tasks that you usually carry out during the exercise of the craft at which you specialize. For the purpose of the study, data will be collected using **video** and **wearable devices**. **Selected photographs/screenshots, may be used for the communication of the study in mass media and scientific publications to inform the public and / or the scientific community. Before capturing any photographs/ screenshots, you will be asked to give your consent vocally on your picture or other identifiable data being captured. In case you wish to opt out from the capturing, you can step away. Please note that the personal data related to video recording is handled differently, as it is a group video and it is recorded once (more in “Right to Refuse or Withdraw” paragraph).**

Data processing / Confidentiality

In the context of the study, only the personal data that is absolutely necessary for conducting the relevant research will be collected and processed through the "pseudonymization" process. Your participation in

this study will remain confidential and your identity will not be stored by any means along with your replies or image / video / wearable devices' data. Your personal data will receive a code number and the digital list linking your name to that number will be stored in a secure, locked digital file. When the data is used your name will not be displayed under any circumstances. The participants' data are protected and kept safe throughout the Project. After the completion of the Project, the list linking your name to the code number of your data will be deleted. The data processing and analysis will be carried out by the coordinator of this study as well as by the partners on site. The results of the study may be published in scientific journals and conferences in an **anonymous** form. If video or images will be published, only the pseudonymised data will be published.

Participation (benefits / motives)

Your participation in the present study is on a voluntary basis and no financial reimbursement is provided for the volunteer participants.

Right to Refuse or Withdraw

As participants volunteering in the study, you are free at any time and until the end of the project to refuse to participate, or withdraw your participation / consent for the data collected in the study without any adverse consequences for you and without the need to justify your decision. The withdrawal of your consent shall not affect the lawfulness of processing based on consent before your withdrawal. However, you have the right to erasure your personal data after the withdrawal of your consent.

You can withdraw your consent to this study at any time, in writing to the Scientific Coordinator of the study, Dr. Xenophon Zabulis (see contact details at the beginning of this document).

Important: Regarding the withdrawal of your consent and the deletion of your personal data related to video recording, please note that this is not feasible according to the Article 17 par.3 (d) of the GDPR. For this reason, you should be absolutely certain about your participation in the video in advance (it is a group video and it is recorded once).

Risks

With respect to the use of wearable devices, the specifications and usage instructions will be followed, as defined by the manufacturer.

You will not be pressured or coerced into participating in this research activity. You are free to leave at any point, with no negative consequences.

Applicable regulations

The protection of natural persons in relation to the processing of personal data is a fundamental right. The law provides specific rights for natural persons (data subjects) and sets specific obligations for those who keep and process such data (controllers). All applicable EU and national legal frameworks and guidelines on the protection of personal data, as derived from the application of the "General Data Protection Regulation (EU 679/2016)", are being considered in this study.

Rights of participants

In accordance with principles of research ethics and EU data protection regulations, you have rights regarding how your personal data is processed. Personal data collected in the present study is processed on the basis of Art 6 par 1(a) of the General Data Protection Regulation.

You have the right to be informed about your personal data collected in and for the purposes of this study and to have access to them, and the right for these data to be in a portable and easily accessible form. You also have the right to request that your personal data be corrected, updated or deleted, the right to have the processing restricted, and the right to object, with the reservation of any exceptions provided for in existing European and national legislation. We acknowledge also to you, that in accordance with the aforementioned Regulation, you have the right to file a complaint to the corresponding national Data Protection Authority (complaints@dpa.gr).

We aim to fulfil all requests. In accordance with data protection legislation, some requests may be rejected.

Who to contact if you have questions

In order to exercise your rights, as far as this study is concerned, you may contact the Scientific Responsible of the study Dr. Xenophon Zabulis. For any further information regarding FORTH's personal data protection policy, you may visit the website (www.forth.gr) or contact the Data Protection Officer of FORTH at: dpo@admin.forth.gr.

Certificate of Consent

I, the undersigned …… (name) hereby declare that I agree to participate in this study, in the context of the CRAEFT (Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity) project.

The purpose of the study, the respective activities and my rights have been explained to me in writing (in the information sheet).

I am participating voluntarily and understand that I can withdraw[10] from the research activities without repercussions, at any time and have my data deleted. I explicitly declare that I have understood that the withdrawal of my personal data related to video recording is not feasible.

I am satisfied that the assurances of responsible and strict data governance, given by the CRAEFT project, will be upheld.

I understand that my personal data are kept and treated as confidential as far as this research program is concerned.

I know and understand that my personal data will be kept in a secure environment and that the processing coordinator will take all the necessary and appropriate measures to protect the security, and in particular the confidentiality and integrity, of personal data, according to data protection legislation and the relevant guidelines.

I explicitly declare that I agree with the publication of the results of this study in anonymous form and with **the publication of selected photographs and video in anonymous form for the promotion of the study in mass media,** and / or scientific publications aimed at informing the public and / or the scientific community.

Print name (participant)	Print name (researcher)
……	……
Signature (participant)	Signature (researcher)
……	……
Date	Date
……	……

[10] You may withdraw your consent to this study at any time, in writing to the Scientific Coordinator of the study, Dr. Xenophon Zabulis, at the Institute of Computer Science (ICS) of the Foundation for Research and Technology - Hellas (FORTH), email: zabulis@ics.forth.gr, tel. tel. +302810391696, address: Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece.

French (FR)

Please do not print this page.

Projet : "CRAEFT : Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity » (Numéro de convention de subvention : 101094349) financé par Horizon Europe

Durée du projet : 36 mois

Date de début : 1er mars 2023.

Date de fin : 27 février 2026.

Coordinateur du projet : Xenophon Zabulis (FORTH)

Description du projet

CRAEFT approfondira notre compréhension des activités de fabrication qui comprennent le soin, le jugement et la dextérité en s'appuyant sur l'anthropologie, la représentation des connaissances, les sciences cognitives, l'histoire de l'art, la numérisation avancée, les immersions audiovisuelle et haptique et l'intelligence informatique pour couvrir l'expression multiforme de l'artisanat en tant que patrimoine vivant et en développement, en tant que source de revenus durable et en tant qu'expression de l'esprit à travers l'imagerie, la technologie et les connaissances sélectionnées. CRAEFT stimulera l'éducation et la formation à l'artisanat grâce à des aides numériques intuitives, des moyens de télécommunication, des simulateurs spécifiques à l'artisanat, une immersion avancée et une numérisation haut de gamme, afin d'élargir l'accès, d'optimiser l'apprentissage, d'augmenter les possibilités d'exercice et de réduire les contraintes liées à l'éloignement dans le cadre de l'apprentissage de l'artisanat. L'intégration de l'intelligence haptique dans la conception numérique permet de relier les connaissances tacites dans les outils de conception artisanale assistée par ordinateur. La simulation du flux de travail appuiera l'archéologie expérimentale pour la récupération des techniques disparues. L'analyse du flux de travail permet d'économiser et de réutiliser des matériaux et de réduire la consommation d'énergie. La conservation numérique et la préservation reconstitution éviteront que des opportunités soient négligées et que des formes inférieures d'artisanat soient considérées comme allant de soi.

Objectif du projet

Le cœur scientifique de cette application est la compréhension générale du processus de fabrication, en tant qu'interaction réfléchie de l'esprit avec le monde par le biais des sens et des actions. La représentation formelle des connaissances est essentielle pour la préservation de la reproduction, mais aussi la compréhension informatique des tâches créatives humaines, ce qui nous permet de fournir des outils plus spécifiques pour l'aider. La reconstitution génératrice et réaliste (simulation) et l'imagerie simulée nous permettent d'évaluer l'exactitude de la représentation de concepts insaisissables tels que la connaissance tacite. La simulation spécifique à un métier est un outil puissant pour l'apprentissage, mais aussi pour l'optimisation de l'efficacité du flux de travail. La représentation des connaissances sera validée par des projets pilotes dans huit sites (Allemagne, France, Espagne et Grèce...) qui serviront de preuve de concept et démontreront leur valeur en termes d'utilisation et d'exploitation par les parties prenantes.

Activités impliquant des participants extérieurs aux partenaires du Consortium

L'approche globale de mise en œuvre adoptée par CRAEFT est basée sur les meilleures pratiques de conception centrée sur l'utilisateur (UCD) telles que préconisées par la norme ISO 13407. En utilisant cette

méthodologie, les groupes de partenaires concernés (c'est-à-dire les musées et les institutions de conservation, les conservateurs, les professionnels de la conservation, les enseignants des musées, les chercheurs, les artisans, les professionnels du tourisme, les visiteurs et les touristes, etc.) participeront à toutes les phases de CRAEFT, y compris le personnel de chaque organisation partenaire, ainsi que les représentants des groupes de partenaires. La méthodologie et l'approche UCD suivies seront encore améliorées pour impliquer les utilisateurs finaux ainsi que tous les groupes de parties prenantes concernés dans la co-conception et le co-développement de tous les résultats du projet (utilisateurs finaux, personnel des musées, conservateurs). Les utilisateurs finaux seront contactés par le biais des contacts fournis par les partenaires universitaires et les ISC du consortium. Quatre sites pilotes seront impliqués dans les activités de CRAEFT avec des participants internes et externes. Il s'agit de l'Allemagne, de la France, de l'Espagne et de la Grèce.

Les utilisateurs finaux seront impliqués dans les activités suivantes :

1.Enregistrement vidéo, audio et de mouvements d'experts : Le savoir-faire gestuel des experts sera enregistré et numérisé à l'aide de technologies de capture de mouvement de haute précision.

2.Évaluation : Toutes les applications des sites pilotes seront évaluées avec des visiteurs réels pendant la période pilote afin d'évaluer la convivialité et l'expérience de l'utilisateur.

Dans le cadre des activités de recherche susmentionnées, les données à caractère personnel des participants externes seront collectées et traitées à l'aide d'une combinaison des méthodes suivantes (en fonction des exigences particulières de chaque étude) :

- Questionnaires
- Observations in situ
- Entretiens
- Enregistrements vidéo et enregistrements de capteurs de mouvements corporels
- Enregistrements audios

Dans le cas de l'évaluation des applications produites dans les sites pilotes avec des visiteurs réels, aucune donnée personnelle ne sera collectée. Toutes les informations seront collectées de manière anonyme.

FORTH ne mènera aucune des activités de recherche susmentionnées impliquant des participants externes dans ses locaux ou ailleurs et ne collectera donc aucune donnée personnelle au cours du projet. En outre, le FORTH, en tant que coordinateur du projet, préparera et fournira à tous les partenaires des modèles de formulaires de consentement de l'utilisateur à suivre pour leurs activités de recherche respectives. Les modèles ont été examinés par le DPD de FORTH. Chaque partenaire est responsable de la traduction du formulaire dans sa langue et des ajustements nécessaires conformément à ses lois et réglementations nationales.

Formulaire de consentement éclairé pour participer aux activités de recherche du projet

« CRAEFT : compréhension artisanale, éducation, formation et préservation pour la postérité et la prospérité »

Veuillez lire attentivement ce document avant de signer

Contrôleur de données

Fondation pour la recherche et la technologie Hellas (FORTH), N. Plastira 100, Vassilika Vouton, GR-700 13 Héraklion, Crète, Grèce.

Coordinateur scientifique / Coordonnées

Dr. Xenophon Zabulis, chercheur principal, à l'Institut d'informatique (ICS) de la Fondation pour la recherche et la technologie - Hellas (FORTH), email : zabulis@ics.forth.gr, tél. +302810391696, adresse : Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, G R-700 13 Heraklion, Crète, Grèce.

Informations clés sur le projet :

Appelez : HORIZON-CL2-2022-HERITAGE-01. Type d'action : HORIZON-RIA. Acronyme : Craeft. Numéro de contrat : 101094349. Durée : 36 mois. Date de début : 1er Mars 2023

Données collectées par :

Nom	Signature, date

Coordinateur de projet : Fondation pour la recherche et la technologie – Hellas (FORTH)

Programme de financement : Horizon Europe

Site internet et contacts du projet : http://www.craeft.eu/

Description du projet de recherche

Cette étude est menée dans le cadre du projet "CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity", qui a pour objectif de stimuler et favoriser l'éducation et la formation artisanales grâce à des aides numériques intuitives, des systèmes de télécommunications, des simulateurs spécifiques pour l'artisanat. , immersivité avancée et numérisation haut de gamme, pour élargir l'accès, optimiser l'apprentissage, augmenter les aptitudes à l'exercice et réduire les contraintes d'éloignement dans l'apprentissage artisanal. Le projet dure 3 ans et est financé par la Commission européenne (contrat n° 101094349), dans le cadre du programme Horizon Europe. Il y a 10 participants de 7 pays européens et en particulier :

Foundation for Research and Technology Hellas

- Consiglio Nazionale delle Ricerche
- Association pour la Recherche & Développement des Méthodes Industriels
- Khora ApS
- Furniture and Wood R&D centre
- Conservatoire National des Arts et Métiers
- Piraeus Bank Group Cultural Foundation
- Centre Européen de Recherches et de Formation aux Arts Verriers
- Mad' In Europe
- Eidgenössische Technische Hochschule Zürich

Plus d'informations peuvent être trouvées sur le site Web du projet: http://www.craeft.eu/

Objectif de l'étude et de la collecte des données

L'objet de cette étude est de recueillir des données des praticiens spécialisés dans le domaine des métiers du patrimoine. Les informations qui seront recueillies permettront de constituer une bibliothèque ouverte de mouvements et de gestes qui sera développée dans le cadre du projet.

Données personnelles

Les données d'identité (par exemple, nom complet, âge, profession, sexe, coordonnées) seront collectées pour les besoins de l'étude. De plus, il vous sera demandé d'effectuer des tâches que vous réalisez habituellement lors de l'exercice du métier dans lequel vous vous spécialisez. Pour les besoins de l'étude, les données seront recueillies à l'aide d'appareils vidéo et **portables. Photographies / captures d'écran sélectionnées, pourra être utilisée pour la communication de l'étude dans les médias et publications scientifiques afin d'informer le public et/ou la communauté scientifique. Avant de capturer des photographies / captures d'écran, il vous sera demandé de donner votre consentement oral pour l'enregistrement de votre photo ou d'autres données identifiables capturées. Si vous souhaitez ne pas participer à la capture, vous pouvez vous retirer. Veuillez noter que les données personnelles liées à l'enregistrement vidéo sont traitées différemment, car il s'agit de vidéos de groupe et elles sont enregistrées une fois (en savoir plus dans le paragraphe "Droit de refus ou de retrait") .**

Traitement des données / Confidentialité

Dans le cadre de l'étude, seules les données personnelles absolument nécessaires à la conduite de la recherche pertinente seront collectées et traitées par le procédé de "pseudonymisation". Votre participation à cette étude restera confidentielle et votre identité ne sera en aucun cas stockée avec vos réponses ou les données des images/vidéos/appareils portables. Vos données personnelles recevront un numéro de code et la liste numérique reliant votre nom à ce numéro sera stockée dans un fichier numérique sécurisé et verrouillée. Lorsque les données sont utilisées, votre nom ne sera en aucun cas affiché. Les données des participants sont protégées et conservées en toute sécurité tout au long du Projet. Après la réalisation du Projet, la liste liant votre nom au numéro de code de vos données sera supprimée. Le traitement et l'analyse des données seront effectués par le coordinateur de cette étude ainsi que par les partenaires sur place. Les résultats de l'étude peuvent être publiés dans des revues scientifiques et des conférences sous une forme **anonyme**. Si des vidéos ou des images seront publiées, seules les données pseudonymisées seront publiées.

Participation (avantages / motivations)

Votre participation à la présente étude est sur une base volontaire et aucun remboursement financier n'est prévu pour les participants volontaires.

Droit de refus ou de rétractation

En tant que participants volontaires à l'étude, vous êtes libres à tout moment et jusqu'à la fin du projet de refuser de participer, ou de retirer votre participation/consentement pour les données collectées dans l'étude sans conséquences négatives pour vous et sans avoir à justifier votre décision. Le retrait de votre consentement n'affecte pas la légalité du traitement fondé sur le consentement avant le retrait. Toutefois, vous avez le droit d'effacer vos données à caractère personnel après le retrait de votre consentement.

Vous pouvez retirer votre consentement à cette étude à tout moment, en écrivant au coordinateur scientifique de l'étude, le Dr Xenophon Zabulis (voir les coordonnées au début de ce document).

Important : Concernant le retrait de votre consentement et la suppression de vos données personnelles liées à l'enregistrement vidéo, veuillez noter que cela n'est pas possible conformément à l'article 17, paragraphe 3 (d) du RGPD. Pour cette raison, vous devez être absolument certain de votre participation à la vidéo à l'avance (il s'agit d'une vidéo de groupe et elle est enregistrée une seule fois).

Des risques

En ce qui concerne l'utilisation d'appareils portables, les spécifications et les instructions d'utilisation seront suivies, telles que définies par le fabricant.

Vous ne subirez aucune pression ou contrainte pour participer à cette activité de recherche. Vous êtes libre de partir à tout moment, sans conséquences négatives.

Règlementation applicable

La protection des personnes physiques à l'égard du traitement des données à caractère personnel est un droit fondamental. La loi prévoit des droits spécifiques pour les personnes physiques (personnes concernées) et fixe des obligations spécifiques pour ceux qui conservent et traitent ces données (responsables du traitement). Tous les cadres juridiques et directives européennes et nationaux applicables en matière de protection des données à caractère personnel, tels qu'ils découlent de l'application du "Règlement général sur la protection des données (UE 679/2016)", sont pris en compte dans cette étude.

Droits des participants

Conformément aux principes d'éthique de la recherche et aux règlementations européennes sur la protection des données, vous avez des droits concernant la manière dont vos données personnelles sont traitées. Les données personnelles collectées dans la présente étude sont traitées sur la base de l'article 6, paragraphe 1, point a), du règlement général sur la protection des données.

Vous avez le droit d'être informé de vos données personnelles collectées dans et pour les besoins de cette étude et d'y avoir accès, et le droit que ces données soient sous une forme portable et facilement accessible. Vous avez également le droit de demander la rectification, la mise à jour ou la suppression de vos données personnelles, le droit d'en limiter le traitement et le droit de vous opposer, sous réserve des exceptions prévues par la législation européenne et nationale en vigueur. Nous vous informons également que, conformément au règlement susmentionné, vous avez le droit de déposer une plainte auprès de l'autorité nationale compétente en matière de protection des données (complaints@dpa.gr)

Nous visons à répondre à toutes les demandes. Conformément à la législation sur la protection des données, certaines demandes peuvent être rejetées.

Qui contacter si vous avez des questions

Pour exercer vos droits, en ce qui concerne cette étude, vous pouvez contacter le Responsable Scientifique de l'étude Dr Xénophon Zabulis. Pour toute information complémentaire concernant la politique de protection des données personnelles de FORTH, vous pouvez visiter le site Web (www.forth.gr) ou contacter le délégué à la protection des données de FORTH à l'adresse : dpo@admin.forth.gr.

Certificat de consentement

Je, soussigné(e) …… (nom) déclare par la présente que j'accepte de participer à cette étude, dans le cadre du projet CRAEFT (Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity - Compréhension, éducation, formation et préservation de l'artisanat pour la postérité et la prospérité).

Le but de l'étude, les activités respectives et mes droits m'ont été expliqués par écrit (dans la fiche d'information).

Je participe volontairement et comprends que je peux me retirer [11]des activités de recherche sans répercussion, à tout moment, et faire supprimer mes données. Je déclare explicitement avoir compris que le retrait de mes données personnelles liées à l'enregistrement vidéo n'est pas possible. Je suis convaincu(e) que les garanties d'une gouvernance responsable et stricte des données, par et pour le projet CRAEFT, seront respectées.

Je comprends que mes données personnelles sont conservées et traitées de manière confidentielle en ce qui concerne ce programme de recherche.

Je sais et comprends que mes données personnelles seront conservées dans un environnement sécurisé et que le coordinateur du traitement prendra toutes les mesures nécessaires et appropriées pour protéger la sécurité, et en particulier la confidentialité et l'intégrité, des données personnelles, conformément à la législation sur la protection des données et les lignes directrices pertinentes.

Je déclare explicitement que je suis d'accord avec **la publication de photographies et de vidéos sélectionnées sous forme anonyme pour la promotion de l'étude dans les médias** et/ou les publications scientifiques visant à informer le public et/ou la communauté scientifique.

Nom en caractères d'imprimerie (participant)	Nom en caractères d'imprimerie (chercheur)
……	……
Signature (participant)	Signature (chercheur)
……	……
Date	Date
……	……

[11] Vous pouvez retirer votre consentement à cette étude à tout moment, en écrivant au coordinateur scientifique de l'étude, le Dr Xenophon Zabulis, à l'Institut d'informatique (ICS) de la Fondation pour la recherche et la technologie - Hellas (FORTH), email : zabulis@ics.forth.gr , tél. tél. +302810391696, adresse : Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crète, Grèce.

Spanish (ES)

Please do not print this page.

Proyecto: CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity (acuerdo de subvención n.º 101094349), financiado por el programa Horizonte Europa

Duración del proyecto: 36 meses

Fecha de inicio: 1 de marzo de 2023

Fecha de finalización: 27 de febrero de 2026

Coordinador del proyecto: Xenophon Zabulis (FORTH)

Descripción del proyecto:

CRAEFT mejorará nuestra comprensión de las actividades artesanales que requieren cuidado, criterio y destreza valiéndose de la antropología, la representación del conocimiento, la ciencia cognitiva, la historia del arte, la digitalización avanzada, la inmersión audiovisual y táctil, y la inteligencia computacional para cubrir la expresión polifacética de la artesanía como patrimonio vivo y en desarrollo, como fuente sostenible de ingresos y como expresión de la mente a través de imágenes, tecnología y conocimiento sedimentado. Además, catalizará la educación y la formación en el sector artesano mediante medios digitales intuitivos, telecomunicaciones, simuladores de procesos artesanos, inmersión avanzada y digitalización de alta gama para ampliar el acceso, economizar el aprendizaje, aumentar la ejercitabilidad y flexibilizar las restricciones que derivan de la distancia en el aprendizaje de la actividad artesanal. La integración de la tecnología háptica en el diseño digital conecta el conocimiento tácito con herramientas de diseño artesanal asistido por ordenador. La simulación del flujo de trabajo servirá de apoyo a la arqueología experimental en la recuperación de técnicas perdidas. El análisis del flujo de trabajo analítico permite ahorrar materiales y reutilizarlos, y reducir el consumo energético. La conservación digital y la preservación recreable evitarán descuidar las posibilidades y dar por sentado las formas artesanales inferiores.

Objetivo del proyecto

La base científica de esta aplicación es la generalidad de entender el proceso de creación artesana como la interacción intencionada de la mente con el mundo a través de los sentidos y de las acciones. La representación formal del conocimiento es esencial para la preservación recreable, pero también lo es la comprensión computacional de las tareas creativas humanas, lo que nos permite ofrecer herramientas más específicas para su ayuda. La recreación generativa y realista (simulación) y las imágenes simuladas nos permiten evaluar la correcta representación de conceptos elusivos, como el conocimiento tácito. Los simuladores de procesos artesanos son una herramienta poderosa para aprender, pero también para optimizar la eficiencia del flujo de trabajo. La representación del conocimiento se validará mediante los pilotos en ocho organismos de Alemania, Francia, España y Grecia que servirán de prueba de concepto y demostrarán su valor de uso y su aprovechamiento por las partes interesadas.

Actividades que involucran a participantes externos a los socios del consorcio

El enfoque general de implementación adoptado por CRAEFT se basa en las buenas prácticas del diseño centrado en el usuario, como describe el estándar ISO 13407. Gracias a esta metodología, las partes interesadas relevantes —como museos e instituciones responsables del patrimonio cultural, responsables

de contenidos, educadores de museos, investigadores, artesanos, profesionales del turismo, visitantes y turistas, etc.— participarán en todas las fases de CRAEFT. También colaborarán el personal de las organizaciones socias y los representantes de los diferentes grupos interesados. La metodología y el enfoque centrado en el usuario escogidos se mejorarán para involucrar a los usuarios finales junto con los grupos interesados —personal de museos y responsables de contenidos— en el codiseño y el codesarrollo de los resultados del proyecto. Nos pondremos en contacto con los usuarios finales a través de los medios que proporcionen los socios académicos y los organismos del consorcio responsables del patrimonio cultural. Las pruebas piloto del proyecto, que incluyen actividades con participantes internos y externos, se realizarán en cuatro países: Alemania, Francia, España y Grecia.

Los usuarios finales participarán en las siguientes actividades:

1. *Grabación de vídeos, audios y movimientos de expertos.* Gracias a las tecnologías de grabación de alta precisión, podremos grabar y digitalizar el saber hacer de los expertos.
2. *Evaluación.* Para evaluar las aplicaciones durante la fase piloto, contaremos con visitantes reales que valorarán la usabilidad y la experiencia de usuario.

En el contexto de las actividades de investigación descritas, se recopilarán y tratarán los datos personales de los participantes externos utilizando una combinación de los siguientes métodos, dependiendo de los requisitos particulares de cada estudio:

- Cuestionarios
- Observaciones *in situ*
- Entrevistas
- Grabaciones de vídeos y grabaciones con sensores de movimiento
- Grabaciones de audio

En el caso de la evaluación de las aplicaciones producidas en la fase piloto con visitantes reales, no se recopilarán datos personales. Toda la información se recopilará de forma anónima.

FORTH no realizará ninguna de las actividades de investigación mencionadas que involucren a participantes externos en sus instalaciones u otras localizaciones y, por tanto, no recopilará datos personales durante el proyecto. Por otro lado, como coordinador, preparará y proporcionará a todos los socios una plantilla para el consentimiento informado que habrán de utilizar en sendas actividades de investigación. Las plantillas han sido revisadas por el DPO de FORTH. Cada socio es responsable de traducir el formulario a su idioma y hacer los ajustes necesarios de acuerdo con sus leyes y reglamentos nacionales.

Formulario de consentimiento informado para participar en las actividades de investigación del proyecto

CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity"

Lea atentamente el siguiente documento antes de firmarlo

Responsable del tratamiento de datos

Fundación para la Investigación y la Tecnología de Hellas (FORTH), N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Creta, Grecia.

Coordinador científico y datos de contacto

Dr. Xenophon Zabulis, investigador principal del Instituto de Ciencias Informáticas de FORTH, correo electrónico: zabulis@ics.forth.gr, teléfono: +302810391696, dirección postal: Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece.

Información importante sobre el proyecto:

Convocatoria: HORIZON-CL2-2022-HERITAGE-01

Tipo de acción: HORIZON-RIA

Acrónimo: Craeft

Número de contrato: 101094349

Duración: 36 meses

Fecha de inicio: 1 de marzo de 2023

Coordinador del proyecto: Foundation for Research and Technology – Hellas (FORTH)

Programa de financiación: Horizonte Europe

Página web y contacto del proyecto: http://www.craeft.eu/

Descripción del proyecto de investigación

Este estudio se realiza dentro del proyecto CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity (Comprensión, Educación, Formación y Preservación de la Artesanía para la Posteridad y la Prosperidad), cuyo objetivo es catalizar la educación y la formación en el sector artesano mediante medios digitales intuitivos, telecomunicaciones, simuladores de procesos artesanos, inmersión avanzada y digitalización de alta gama para ampliar el acceso, economizar el aprendizaje, aumentar la ejercitabilidad y flexibilizar las restricciones que derivan de la distancia en el aprendizaje de la actividad artesanal. El proyecto tiene una duración de tres años y está financiado por el programa Horizonte Europa de la Comisión Europea (acuerdo de subvención n.º 101094349).

El proyecto cuenta con diez participantes de siete países europeos, a saber:

- Foundation for Research and Technology Hellas
- Consiglio Nazionale delle Ricerche
- Association pour la Recherche & Développement des Méthodes Industriels
- Khora ApS
- Furniture and Wood R&D centre
- Conservatoire National des Arts et Métiers
- Piraeus Bank Group Cultural Foundation
- Centre Européen de Recherches et de Formation aux Arts Verriers
- Mad' In Europe
- Eidgenössische Technische Hochschule Zürich

Para más información, puede visitar la web del proyecto: http://www.craeft.eu/

Finalidad del estudio y de la recopilación de datos

El objetivo de este estudio es la grabación de movimientos de profesionales de la artesanía tradicional. La información que se va a recopilar contribuirá a crear una biblioteca de movimientos y gestos, de acceso libre, que se desarrollará durante el proyecto.

Datos personales

La información personal de identificación, como el nombre completo, la edad, la ocupación, el género y los datos de contacto, se recopilarán exclusivamente para la investigación. Además, se le pedirá realizar tareas que normalmente realiza durante la actividad artesanal en la que está especializado. Con fines de investigación, los datos se recopilarán mediante **dispositivos de grabación de vídeo** y **dispositivos *wearable***. **Las fotografías y capturas de pantalla seleccionadas podrán usarse para informar sobre el estudio, en medios de comunicación y publicaciones científicas, al público y a la comunidad científica. Antes de realizar grabaciones en vídeo o fotografías, le pediremos su consentimiento verbal para la captura de imágenes u otra información de identificación. Si cambiara de opinión, puede retirar su consentimiento. Le informamos de que el tratamiento de los datos personales vinculados a la grabación en vídeo es diferente, puesto que es un vídeo grupal que se graba una única vez. Para más información, lea el párrafo «Derecho a negarse o a retirar el consentimiento».**

Tratamiento de datos/confidencialidad

En el contexto de este estudio, solo se recopilarán los datos personales que sean absolutamente necesarios para realizar la investigación. Además, se someterán a un proceso de seudonimización. Su participación en el estudio se mantendrá con confidencialidad y su identidad, así como los datos extraídos de sus respuestas y de las imágenes, vídeos, dispositivos no se almacenarán. Sus datos personales recibirán un código numérico y el listado digital que relacione su nombre a ese número se almacenará de forma segura en un documento digital protegido. Cuando se utilicen dichos datos, su nombre no aparecerá bajo ningún concepto. Los datos de los participantes están especialmente protegidos durante el proyecto. Una vez que finalice el proyecto, se eliminará la lista que relaciona su nombre con el código de sus datos. El procesamiento y análisis de datos será realizado por el coordinador de este estudio, así como por los socios en el sitio. Los resultados del estudio podrán ser publicados en revistas científicas y congresos de forma anónima. Si se publicarán videos o imágenes, solo se publicarán los datos seudonimizados.

Participación (beneficios/motivos)

Su participación en este estudio es voluntaria y, como tal, no conlleva ningún tipo de beneficio económico.

Derecho a negarse o a retirar el consentimiento

Como participante voluntario en el estudio, puede negarse a participar en cualquier momento o retirar su participación o su consentimiento para que se recopilen datos durante el estudio sin consecuencia alguna y sin la necesidad de justificar su decisión. La retirada de su consentimiento no afectará a la legalidad del tratamiento basado en el consentimiento previo a la retirada. No obstante, tiene derecho a suprimir sus datos personales una vez se retire su consentimiento.

Puede retirar su consentimiento en cualquier momento dirigiéndose al coordinador científico del estudio, el Dr. Xenophon Zabulis. Encontrará sus datos de contacto al inicio de este documento.

Importante : En relación con la retirada de su consentimiento y la supresión de sus datos personales de las grabaciones en vídeo, le informamos que no es posible según el Artículo 17 par. 3 (d) del RGPD. Por ello y con antelación a la grabación del vídeo —el vídeo será grupal y se grabará una única vez—, debe estar completamente seguro de participar en él.

Riesgos

Con respecto al uso de dispositivos *wearable*, habrán de seguirse las especificaciones e instrucciones de uso definidas por el fabricante.

No se le presionará ni coaccionará para participar en esta actividad. Puede abandonar voluntariamente en cualquier momento sin que haya consecuencias.

Reglamento aplicable

La protección de personas naturales en relación con el tratamiento de datos personales es un derecho fundamental. La legislación específica ofrece derechos específicos a las personas naturales (titulares de los datos) y establece un conjunto de obligaciones para aquellos que mantienen y tratan dichos datos. Para este estudio, se consideran todos los marcos jurídicos (reguladores) y directrices, tanto de la UE como nacionales, como deriva de la aplicación del Reglamento General de Protección de Datos (EU 679/2016).

Derechos de los participants

En cumplimiento de los principios éticos de esta investigación y de la regulación de protección de datos de la UE, usted tiene derechos en materia de tratamiento de datos. Los datos personales recopilados en el presente estudio se procesan sobre la base del artículo 6, apartado 1, letra a), del Reglamento general de protección de datos.

Tiene derecho a ser informado sobre los datos personales que recopilen de usted en y para el objetivo de este estudio, a acceder a ellos y a la portabilidad de dichos datos en un documento accesible. Además, tiene derecho a solicitar la supresión, rectificación y actualización de sus datos, a que el tratamiento sea limitado y a poner objeciones, con la reserva de posibles excepciones manifestadas en la legislación europea y nacional existentes. En cumplimiento de la mencionada regulación, también le informamos de que tiene derecho a presentar una queja a la autoridad de protección de datos correspondiente en su país a través de la dirección de correo electrónico complaints@dpa.gr.

Responderemos a todas las peticiones. En cumplimiento de la normativa de protección de datos, puede que algunas se denieguen.

Contacto en caso de dudas

Para ejercer los derechos relacionados con este estudio, puede ponerse en contacto con el responsable científico, el Dr. Xenophon Zabulis. Para más información sobre la política de protección de datos personales, puede visitar la página web (www.forth.gr) o ponerse en contacto con el responsable de protección de datos de FORTH en la siguiente dirección de correo: dpo@admin.forth.gr.

Declaración de consentimiento informado

Yo, …… (nombre y apellidos) declaro que acepto participar en este estudio, dentro del proyecto CRAEFT (Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity)

He recibido información acerca del objetivo de este estudio, de sus respectivas actividades y de mis derechos (documento informativo).

Mi participación es voluntaria y comprendo que puedo retirarme de las actividades de investigación de este estudio cuando quiera [12] sin que esto repercuta, así como eliminar mis datos personales. Declaro que entiendo que no es posible retirar mis datos personales de la grabación de vídeo.

Estoy satisfecho con la ratificación de la garantía que ofrece el responsable y la estricta gobernanza de datos por parte del proyecto CRAEFT.

Entiendo que mis datos personales se almacenarán y tratarán de forma confidencial durante todo el programa de investigación.

He recibido información y comprendo que mis datos personales se almacenarán de forma segura y que el coordinador tomará las medidas adecuadas para proteger la seguridad y, en concreto, la confidencialidad y la integridad de los datos personales, en cumplimiento de la normativa de protección de datos.

Declaro expresamente que estoy de acuerdo con la publicación, de forma anónima, de los resultados de este estudio y con **la publicación de fotografías y videos seleccionados en forma anónima para la promoción del estudio en los medios de comunicación** o en publicaciones científicas destinadas a informar al público o a la comunidad científica.

Nombre completo (participante)	Nombre completo (investigador)
……	……
Firma (participante)	Firma (investigador)
……	……
Fecha	Fecha
……	……

[12] Puede retirar su consentimiento en cualquier momento dirigiéndose al coordinador científico del estudio, el Dr. Xenophon Zabulis, del ICS (Instituto de Ciencias Informáticas) de FORTH (Foundation for Research and Technology - Hellas), al correo electrónico: zabulis@ics.forth.gr, tel.: +302810391696, dirección: Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, N. Plastira 100, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece.

Greek (GR)

Please do not print this page.

Έργο : «CRAEFT: Craft Understanding, Education, Training and Preservation for Posterity and Prosperity» (Αριθμός Συμφωνίας Επιχορήγησης: 101094349) που χρηματοδοτείται από το Horizon Europe

Διάρκεια έργου : 36 μήνες

Ημερομηνία έναρξης : 1 Μαρτίου 2023.

Ημερομηνία λήξης : 27 Φεβρουαρίου 2026 .

Συντονιστής Έργου : Ξενοφών Ζαμπούλης (ITE)

Περιγραφή Έργου

Το CRAEFT θα εμβαθύνει την κατανόησή μας όσον αφορά τη δημιουργία δραστηριοτήτων που περιλαμβάνουν φροντίδα, κρίση και επιδεξιότητα σε θέματα Ανθρωπολογίας, Αναπαράστασης Γνώσης, Γνωσιακής Επιστήμης, Ιστορίας της Τέχνης, Προηγμένης Ψηφιοποίησης, Οπτικοακουστικής & Απτικής Εμβύθισης και Υπολογιστικής Νοημοσύνης για να καλύψει την πολύπλευρη έκφραση των χειροτεχνιών ως ζωντανών και την ανάπτυξη της κληρονομιάς, ως βιώσιμης πηγής εισοδήματος και ως έκφραση του μυαλού μέσω εικόνων, τεχνολογίας και ιζηματοποιημένης γνώσης. Το CRAEFT θα καταλύσει την εκπαίδευση και την κατάρτιση στη χειροτεχνία με διαισθητικά ψηφιακά βοηθήματα, τηλεπικοινωνίες, προσομοιωτές ειδικών τεχνών, προηγμένη εμβύθιση και ψηφιοποίηση υψηλής τεχνολογίας, για να διευρύνει την πρόσβαση, να εξοικονομήσει τη μάθηση, να αυξήσει την ικανότητα άσκησης και να χαλαρώσει τους περιορισμούς της απόστασης στην εκμάθηση χειροτεχνίας. Η ενσωμάτωση απτικής νοημοσύνης στον ψηφιακό σχεδιασμό συνδέει τη γνώση ψηφιακά με εργαλεία σχεδιασμού ειδικά για χειροτεχνία. Η προσομοίωση ροής εργασίας θα υποστηρίξει την πειραματική αρχαιολογία για την ανάκτηση χαμένων τεχνικών. Η αναλυτική ανάλυση ροής εργασιών οδηγεί σε εξοικονόμηση υλικών και επαναχρησιμοποίηση και μείωση της κατανάλωσης ενέργειας. Η ψηφιακή διατήρηση και η επαναλήψιμη διατήρηση θα αποτρέψουν τις πιθανότητες να παραμεληθούν ή να θεωρηθούν δεδομένες οι κατώτερες μορφές χειροτεχνίας.

Στόχος του έργου

Ο επιστημονικός πυρήνας αυτής της εφαρμογής είναι η γενικότητα της κατανόησης της διαδικασίας δημιουργίας, ως η σκόπιμη αλληλεπίδραση του νου με τον κόσμο μέσω των αισθήσεων και των ενεργειών. Η επίσημη αναπαράσταση της γνώσης είναι απαραίτητη για την επαναλήψιμη διατήρηση, αλλά και την υπολογιστική κατανόηση των ανθρώπινων δημιουργικών εργασιών, επιτρέποντάς μας να παρέχουμε πιο συγκεκριμένα εργαλεία για τη βοήθειά της. Η παραγωγική, ρεαλιστική αναπαράσταση (προσομοίωση) μας επιτρέπει να αξιολογήσουμε την ορθότητα της αναπαράστασης άπιαστων εννοιών όπως η σιωπηρή γνώση. Η προσομοίωση ειδικά για τη χειροτεχνία είναι ένα ισχυρό εργαλείο για τη μάθηση αλλά και για τη βελτιστοποίηση της αποτελεσματικότητας της ροής εργασίας. Η εκπροσώπηση της γνώσης θα επικυρωθεί από πιλότους σε οκτώ τοποθεσίες (Γερμανία, Γαλλία, Ισπανία και Ελλάδα) που χρησιμεύουν ως απόδειξη της ιδέας και καταδεικνύουν την αξία τους στη χρήση και την εκμετάλλευσή τους από τα ενδιαφερόμενα μέρη.

Δραστηριότητες στις οποίες συμμετέχουν συμμετέχοντες εκτός των εταίρων της Κοινοπραξίας

Η συνολική προσέγγιση υλοποίησης που υιοθετήθηκε από το CRAEFT βασίζεται στις βέλτιστες πρακτικές στον Χρηστοκεντρικό Σχεδιασμό (UCD) όπως υποστηρίζεται από το πρότυπο ISO 13407. Χρησιμοποιώντας αυτήν τη μεθοδολογία, οι σχετικές ομάδες ενδιαφερομένων (π.χ. Μουσεία & ιδρύματα CH, επιμελητές, επαγγελματίες CH, μουσειοπαιδαγωγοί, ερευνητές, επαγγελματίες χειροτεχνίας, επαγγελματίες του τουρισμού, επισκέπτες και τουρίστες, κ.λπ.) θα συμμετέχουν σε όλες τις φάσεις του CRAEFT , συμπεριλαμβανομένου του προσωπικού από κάθε οργανισμό εταίρου, καθώς και εκπροσώπων των ομάδων ενδιαφερομένων. Η μεθοδολογία και η προσέγγιση UCD που ακολουθείται θα βελτιωθεί περαιτέρω για τη συμμετοχή τελικών χρηστών μαζί με όλες τις ομάδες σχετικών ενδιαφερομένων στον συν-σχεδιασμό και από κοινού ανάπτυξη όλων των αποτελεσμάτων του έργου (τελικοί χρήστες, προσωπικό μουσείων, επιμελητές). Οι τελικοί χρήστες θα προσεγγιστούν μέσω συνδέσεων που παρέχονται από τους ακαδημαϊκούς εταίρους και τα CHI της κοινοπραξίας. Τρεις πιλοτικές τοποθεσίες θα συμμετάσχουν στις δραστηριότητες του CRAEFT με τη συμμετοχή εσωτερικών και εξωτερικών συμμετεχόντων. Αυτές είναι η Γερμανία, η Γαλλία, η Ισπανία και η Ελλάδα.

Οι τελικοί χρήστες θα συμμετάσχουν στις ακόλουθες δραστηριότητες:

1. *Εγγραφή βίντεο, ήχου και κίνησης από ειδικούς:* Η τεχνογνωσία χειρονομίας των ειδικών θα καταγραφεί και θα ψηφιοποιηθεί με τη χρήση τεχνολογιών καταγραφής κίνησης υψηλής ακρίβειας.
2. *Αξιολόγηση:* Όλες οι εφαρμογές στις πιλοτικές τοποθεσίες θα αξιολογηθούν με πραγματικούς επισκέπτες κατά τη διάρκεια της πιλοτικής περιόδου για την αξιολόγηση της χρηστικότητας και της εμπειρίας χρήστη.

Στο πλαίσιο των παραπάνω ερευνητικών δραστηριοτήτων, τα προσωπικά δεδομένα των εξωτερικών συμμετεχόντων θα συλλέγονται και θα υποβάλλονται σε επεξεργασία χρησιμοποιώντας έναν συνδυασμό οποιασδήποτε από τις ακόλουθες μεθόδους (ανάλογα με τις ιδιαίτερες απαιτήσεις κάθε μελέτης):

- Ερωτηματολόγια
- Επιτόπιες παρατηρήσεις
- Συνεντεύξεις
- Εγγραφές βίντεο και εγγραφές με αισθητήρα κίνησης σώματος
- Ηχογραφήσεις

Σε περίπτωση αξιολόγησης των παραγόμενων εφαρμογών στους πιλοτικούς ιστότοπους με πραγματικούς επισκέπτες, δεν θα συλλέγονται προσωπικά δεδομένα. Όλες οι πληροφορίες θα συλλέγονται ανώνυμα.

Το ΙΤΕ δεν θα διεξάγει καμία από τις παραπάνω ερευνητικές δραστηριότητες που αφορούν εξωτερικούς συμμετέχοντες στις εγκαταστάσεις του ή αλλού και ως εκ τούτου δεν θα συλλέγει προσωπικά δεδομένα κατά τη διάρκεια του έργου. Επιπλέον, το ΙΤΕ ως Συντονιστής του έργου θα προετοιμάσει και θα παρέχει σε όλους τους εταίρους πρότυπα Φόρμας Συναίνεσης Χρηστών που θα πρέπει να ακολουθούνται για τις αντίστοιχες ερευνητικές τους δραστηριότητες. Τα πρότυπα έχουν ελεγχθεί από τον ΥΠΔ του ΙΤΕ. Κάθε εταίρος είναι υπεύθυνος για τη μετάφραση του εντύπου στη γλώσσα του και για τις απαραίτητες προσαρμογές σύμφωνα με τους εθνικούς του νόμους και κανονισμούς.

Έντυπο ενημερωμένης συγκατάθεσης για συμμετοχή σε ερευνητικές δραστηριότητες του Έργου

«CRAEFT: Κατανόηση, Εκπαίδευση, Κατάρτιση και Διατήρηση Τεχνών για τις Μελλοντικές Γενιές και την Ευημερία»

Διαβάστε προσεκτικά αυτό το έγγραφο πριν υπογράψετε

Υπεύθυνος επεξεργασίας δεδομένων

Ίδρυμα Έρευνας και Τεχνολογίας Ελλάς (ITE), Ν. Πλαστήρα 100, Βασιλικά Βουτών, GR-700 13 Ηράκλειο, Κρήτη, Ελλάδα .

Επιστημονικός Συντονιστής / Στοιχεία Επικοινωνίας

Δρ Ξενοφών Ζαμπούλης, Κύριος Ερευνητής, στο Ινστιτούτο Επιστήμης Υπολογιστών (ΙΠΕ) του Ιδρύματος Τεχνολογίας και Έρευνας (ITE), email: zabulis@ics.forth.gr, τηλ. +302810391696, διεύθυνση: Ίδρυμα Έρευνας και Τεχνολογίας - Ελλάς (ITE), Ινστιτούτο Επιστήμης Υπολογιστών, Ν. Πλαστήρα 100, Βασιλικά Βουτών, G R-700 13 Ηράκλειο, Κρήτη, Ελλάδα.

Συλλογή δεδομένων :

Όνομα	Υπογραφή, Ημερομηνία

Βασικές πληροφορίες για το Έργο :

Πρόσκληση: HORIZON-CL2-2022-HERITAGE-01. Είδος Δράσης: HORIZON-RIA. Ακρωνύμιο: Craeft. Αριθμός Σύμβασης: 101094349. Διάρκεια: 36 μήνες. Ημερομηνία έναρξης: 01 Μαρτίου 2023

Συντονιστής του έργου: Ίδρυμα Έρευνας και Τεχνολογίας – Ελλάς (ITE)

Πρόγραμμα Χρηματοδότησης: Horizon Europe

Ιστοσελίδα και επαφές του έργου: http://www.craeft.eu/

Περιγραφή του Ερευνητικού Έργου

Αυτή η μελέτη διεξάγεται στο πλαίσιο του έργου «CRAEFT: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity», το οποίο έχει ως στόχο να καταλύσει την εκπαίδευση και την κατάρτιση χειροτεχνίας με διαισθητικά ψηφιακά βοηθήματα, τηλεπικοινωνίες, ειδικούς προσομοιωτές χειροτεχνίας , προηγμένη εμβύθιση και ψηφιοποίηση υψηλών προδιαγραφών, για διεύρυνση της πρόσβασης, εξοικονόμηση της μάθησης, αύξηση της ικανότητας άσκησης και χαλάρωση των περιορισμών απόστασης στην εκμάθηση χειροτεχνίας. Το έργο διαρκεί 3 χρόνια και χρηματοδοτείται από την Ευρωπαϊκή Επιτροπή (αρ. σύμβασης 101094349), στο πλαίσιο του προγράμματος Horizon Europe. Συμμετέχουν 10 συμμετέχοντες από 7 ευρωπαϊκές χώρες και συγκεκριμένα:

- Ίδρυμα Έρευνας και Τεχνολογίας Ελλάς
- Consiglio Nazionale delle Ricerche
- Association pour la Recherche & Développement des Méthodes Industriels
- Khora ApS
- Furniture and Wood R&D centre
- Conservatoire National des Arts et Métiers
- Piraeus Bank Group Cultural Foundation
- Centre Européen de Recherches et de Formation aux Arts Verriers
- Mad' In Europe
- Eidgenössische Technische Hochschule Zürich

Περισσότερες πληροφορίες μπορείτε να βρείτε στον ιστότοπο του έργου: http://www.craeft.eu/

Σκοπός της μελέτης και της συλλογής δεδομένων

Σκοπός της παρούσας μελέτης είναι η καταγραφή κινήσεων εξειδικευμένων επαγγελματιών στον τομέα των χειροτεχνιών κληρονομιάς. Οι πληροφορίες που θα συλλεχθούν θα βοηθήσουν στον καθορισμό μιας ανοιχτής βιβλιοθήκης κινήσεων και χειρονομιών που θα αναπτυχθεί στο πλαίσιο του Έργου.

Προσωπικά δεδομένα

Για τους σκοπούς της μελέτης θα συλλεχθούν δεδομένα ταυτότητας (π.χ. πλήρες όνομα, ηλικία, επάγγελμα, φύλο, στοιχεία επικοινωνίας). Επιπλέον, θα σας ζητηθεί να εκτελέσετε εργασίες που συνήθως εκτελείτε κατά την άσκηση της τέχνης στην οποία ειδικεύεστε. Για τους σκοπούς της μελέτης, τα δεδομένα θα συλλεχθούν χρησιμοποιώντας συσκευές **βίντεο** και **φορητές συσκευές** . **Επιλεγμένες φωτογραφίες/στιγμιότυπα οθόνης, μπορεί να χρησιμοποιηθεί για την ανακοίνωση της μελέτης σε μέσα μαζικής ενημέρωσης και επιστημονικές δημοσιεύσεις για την ενημέρωση του κοινού ή/και της επιστημονικής κοινότητας. Πριν τραβήξετε φωτογραφίες/ στιγμιότυπα οθόνης, θα σας ζητηθεί να δώσετε τη συγκατάθεσή σας φωνητικά για τη λήψη της φωτογραφίας σας ή άλλων αναγνωρίσιμων δεδομένων. Σε περίπτωση που θέλετε να εξαιρεθείτε από τη λήψη, μπορείτε να απομακρυνθείτε. Λάβετε υπόψη ότι τα προσωπικά δεδομένα που σχετίζονται με την εγγραφή βίντεο αντιμετωπίζονται διαφορετικά, καθώς είναι ομαδικό βίντεο και ηχογραφείται μία φορά (περισσότερα στην παράγραφο «Δικαίωμα άρνησης ή υπαναχώρησης») .**

Επεξεργασία δεδομένων / Εμπιστευτικότητα

Στο πλαίσιο της μελέτης θα συλλέγονται και θα υποβάλλονται σε επεξεργασία μόνο τα προσωπικά δεδομένα που είναι απολύτως απαραίτητα για τη διεξαγωγή της σχετικής έρευνας μέσω της διαδικασίας «ψευδώνυμου». Η συμμετοχή σας σε αυτή τη μελέτη θα παραμείνει εμπιστευτική και η ταυτότητά σας δεν θα αποθηκευτεί με κανένα τρόπο μαζί με τις απαντήσεις σας ή τα δεδομένα εικόνας / βίντεο / φορητών συσκευών. Τα προσωπικά σας δεδομένα θα λάβουν έναν κωδικό αριθμό και η ψηφιακή λίστα που συνδέει το όνομά σας με αυτόν τον αριθμό θα αποθηκευτεί σε ένα ασφαλές, κλειδωμένο ψηφιακό αρχείο. Όταν χρησιμοποιούνται τα δεδομένα, το όνομά σας δεν θα εμφανίζεται σε καμία περίπτωση. Τα δεδομένα των συμμετεχόντων προστατεύονται και διατηρούνται ασφαλή καθ' όλη τη διάρκεια του Έργου. Μετά την ολοκλήρωση του Έργου, η λίστα που συνδέει το όνομά σας με τον κωδικό αριθμό των δεδομένων σας θα διαγραφεί. Η επεξεργασία και ανάλυση των δεδομένων θα πραγματοποιηθεί από τον συντονιστή αυτής της μελέτης καθώς και από τους εταίρους επιτόπου. Τα αποτελέσματα της μελέτης μπορούν να δημοσιευθούν σε επιστημονικά περιοδικά και συνέδρια σε **ανώνυμη** μορφή. Εάν δημοσιευθούν βίντεο ή εικόνες, θα δημοσιευτούν μόνο τα ψευδώνυμα δεδομένα.

Συμμετοχή (οφέλη / κίνητρα)

Η συμμετοχή σας στην παρούσα μελέτη είναι σε εθελοντική βάση και δεν προβλέπεται οικονομική αποζημίωση για τους εθελοντές συμμετέχοντες.

Δικαίωμα άρνησης ή υπαναχώρησης

Ως συμμετέχοντες εθελοντές στη μελέτη, είστε ελεύθεροι ανά πάσα στιγμή και μέχρι το τέλος του έργου να αρνηθείτε να συμμετάσχετε ή να αποσύρετε τη συμμετοχή / τη συγκατάθεσή σας για τα δεδομένα που συλλέγονται στη μελέτη χωρίς δυσμενείς συνέπειες για εσάς και χωρίς να χρειάζεται να αιτιολογήσετε η απόφασή σου. Η ανάκληση της συγκατάθεσής σας δεν επηρεάζει τη νομιμότητα της επεξεργασίας που βασίζεται στη συγκατάθεσή σας πριν από την ανάκλησή σας. Ωστόσο, έχετε το δικαίωμα να διαγράψετε τα προσωπικά σας δεδομένα μετά την ανάκληση της συγκατάθεσής σας.

Μπορείτε να αποσύρετε τη συγκατάθεσή σας για αυτήν τη μελέτη ανά πάσα στιγμή, γραπτώς στον Επιστημονικό Συντονιστή της μελέτης, Δρ Ξενοφώντα Ζαμπούλη (βλ. στοιχεία επικοινωνίας στην αρχή αυτού του εγγράφου).

Σημαντικό: Όσον αφορά την ανάκληση της συγκατάθεσής σας και τη διαγραφή των προσωπικών σας δεδομένων που σχετίζονται με την εγγραφή βίντεο, σημειώστε ότι αυτό δεν είναι εφικτό σύμφωνα με το Άρθρο 17 παρ.3 (δ) του ΓΚΠΔ. Για το λόγο αυτό, θα πρέπει να είστε απολύτως σίγουροι για τη συμμετοχή σας στο βίντεο εκ των προτέρων (είναι ομαδικό βίντεο και ηχογραφείται μία φορά).

Κίνδυνοι

Όσον αφορά τη χρήση φορητών συσκευών, θα ακολουθούνται οι προδιαγραφές και οι οδηγίες χρήσης, όπως ορίζονται από τον κατασκευαστή.

Δεν θα πιεστείτε ούτε θα εξαναγκαστείτε να συμμετάσχετε σε αυτήν την ερευνητική δραστηριότητα. Είστε ελεύθεροι να φύγετε ανά πάσα στιγμή, χωρίς αρνητικές συνέπειες.

Οι ισχύοντες κανονισμοί

Η προστασία των φυσικών προσώπων σε σχέση με την επεξεργασία δεδομένων προσωπικού χαρακτήρα αποτελεί θεμελιώδες δικαίωμα. Ο νόμος προβλέπει συγκεκριμένα δικαιώματα για τα φυσικά πρόσωπα (υποκείμενα των δεδομένων) και θέτει συγκεκριμένες υποχρεώσεις για όσους διατηρούν και επεξεργάζονται τέτοια δεδομένα (υπεύθυνοι επεξεργασίας). Όλα τα ισχύοντα κοινοτικά και εθνικά νομικά πλαίσια και κατευθυντήριες γραμμές για την προστασία των προσωπικών δεδομένων, όπως προκύπτουν από την εφαρμογή του «Γενικού Κανονισμού για την Προστασία Δεδομένων (ΕΕ 679/2016)», εξετάζονται σε αυτή τη μελέτη.

Δικαιώματα των συμμετεχόντων

Σύμφωνα με τις αρχές της δεοντολογίας της έρευνας και τους κανονισμούς προστασίας δεδομένων της ΕΕ, έχετε δικαιώματα σχετικά με τον τρόπο επεξεργασίας των προσωπικών σας δεδομένων. Τα προσωπικά δεδομένα που συλλέγονται στην παρούσα μελέτη υποβάλλονται σε επεξεργασία με βάση το άρθρο 6 παράγραφος 1 στοιχείο α) του Γενικού Κανονισμού Προστασίας Δεδομένων.

Έχετε το δικαίωμα να ενημερώνεστε για τα προσωπικά σας δεδομένα που συλλέγονται μέσα και για τους σκοπούς της παρούσας μελέτης και να έχετε πρόσβαση σε αυτά, καθώς και το δικαίωμα αυτά τα δεδομένα να είναι σε φορητή και εύκολα προσβάσιμη μορφή. Έχετε επίσης το δικαίωμα να ζητήσετε τη διόρθωση, την ενημέρωση ή τη διαγραφή των προσωπικών σας δεδομένων , το δικαίωμα περιορισμού της επεξεργασίας και το δικαίωμα αντίρρησης, με την επιφύλαξη τυχόν εξαιρέσεων που προβλέπονται στην ισχύουσα ευρωπαϊκή και εθνική νομοθεσία . Σας αναγνωρίζουμε επίσης ότι, σύμφωνα με τον προαναφερθέντα Κανονισμό, έχετε το δικαίωμα να υποβάλετε καταγγελία στην αντίστοιχη εθνική Αρχή Προστασίας Δεδομένων Προσωπικού Χαρακτήρα (compets@dpa.gr).

Στόχος μας είναι να εκπληρώσουμε όλα τα αιτήματα. Σύμφωνα με τη νομοθεσία περί προστασίας δεδομένων, ορισμένα αιτήματα ενδέχεται να απορριφθούν.

Με ποιον να επικοινωνήσετε εάν έχετε ερωτήσεις

Για να ασκήσετε τα δικαιώματά σας, όσον αφορά την παρούσα μελέτη, μπορείτε να επικοινωνήσετε με τον Επιστημονικό Υπεύθυνο της μελέτης Δρ Ξενοφών Ζαμπούλης. Για οποιαδήποτε περαιτέρω πληροφορία σχετικά με την πολιτική προστασίας προσωπικών δεδομένων του ΙΤΕ, μπορείτε να επισκεφτείτε τον ιστότοπο (www.forth.gr) ή να επικοινωνήσετε με τον Υπεύθυνο Προστασίας Δεδομένων του ΙΤΕ στη διεύθυνση: dpo@admin.forth.gr.

Πιστοποιητικό συγκατάθεσης

Εγώ, ο κάτωθι υπογεγραμμένος …… (όνομα) δηλώνω ότι συμφωνώ να συμμετάσχω στην παρούσα μελέτη, στο πλαίσιο του CRAEFT (Craft Understanding, Education, Training , and Preservation for Posterity and Prosperity).

Ο σκοπός της μελέτης, οι αντίστοιχες δραστηριότητες και τα δικαιώματά μου έχουν εξηγηθεί γραπτώς (στο φύλλο πληροφοριών).

Συμμετέχω εθελοντικά και κατανοώ ότι μπορώ να αποχωρήσω [13]από τις ερευνητικές δραστηριότητες χωρίς επιπτώσεις, ανά πάσα στιγμή και να διαγραφούν τα δεδομένα μου. Δηλώνω ρητά ότι έχω κατανοήσει ότι η απόσυρση των προσωπικών μου δεδομένων που σχετίζονται με την εγγραφή βίντεο δεν είναι εφικτή.

Είμαι ικανοποιημένος που θα τηρηθούν οι διαβεβαιώσεις υπεύθυνης και αυστηρής διαχείρισης δεδομένων, που δίνονται από το έργο CRAEFT.

Κατανοώ ότι τα προσωπικά μου δεδομένα τηρούνται και αντιμετωπίζονται ως εμπιστευτικά όσον αφορά αυτό το ερευνητικό πρόγραμμα.

Γνωρίζω και κατανοώ ότι τα προσωπικά μου δεδομένα θα φυλάσσονται σε ασφαλές περιβάλλον και ότι ο συντονιστής επεξεργασίας θα λάβει όλα τα απαραίτητα και κατάλληλα μέτρα για την προστασία της ασφάλειας, και ιδίως της εμπιστευτικότητας και ακεραιότητας, των προσωπικών δεδομένων, σύμφωνα με τη νομοθεσία περί προστασίας δεδομένων και τις σχετικές οδηγίες.

Δηλώνω ρητά ότι συμφωνώ με τη δημοσίευση των αποτελεσμάτων της παρούσας μελέτης σε ανώνυμη μορφή και με **τη δημοσίευση επιλεγμένων φωτογραφιών και βίντεο για την προώθηση της μελέτης στα μέσα μαζικής ενημέρωσης** ή/και επιστημονικές δημοσιεύσεις που στοχεύουν στην ενημέρωση του κοινού ή/και του επιστημονικού κοινότητα.

Εκτύπωση ονόματος (συμμετέχοντος)	Εκτύπωση ονόματος (ερευνητής)
……	……
Υπογραφή (συμμετέχων)	Υπογραφή (ερευνητής)
……	……
Ημερομηνία	Ημερομηνία
……	……

[13] Εσείς μπορεί να αποσύρει τη συγκατάθεσή σας για τη μελέτη αυτή ανά πάσα στιγμή, γραπτώς στον Επιστημονικό Υπεύθυνο της μελέτης, Δρ Ξενοφώντα Ζαμπούλη, στο Ινστιτούτο Επιστήμης Υπολογιστών (ΙΠ) του Ιδρύματος Έρευνας και Τεχνολογίας - Ελλάς (ITE), email: zabulis@ics.forth.gr , τηλ. τηλ. +302810391696, διεύθυνση: Ίδρυμα Έρευνας και Τεχνολογίας - Ελλάς (ITE), Ινστιτούτο Επιστήμης Υπολογιστών, Ν. Πλαστήρα 100, Βασιλικά Βουτών, GR-700 13 Ηράκλειο, Κρήτη, Ελλάδα.