MuseIT

Multisensory, User-centred, Shared cultural Experiences through Interactive Technologies
2022 - 2025

DATAVERSE INTEGRATION OF MULTIMODALITIES WITH EXTERNAL CONTROLLED VOCABULARIES IN THE MUSEIT PROJECT

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Partners

🇸🇪	University of Borås (HB)	HÖGSKOLAN I BORÅS
🇨🇾	CataLink Limited (CTL)	catalink — The catalyst for innovation
🇬🇷	Centre for Research & Technology Hellas	CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS
🇬🇷	EXUS Software Monoprosopi (EXUS)	EXUS AI LABS
🇸🇪	ShareMusic & Performing Arts (SHMU)	SHAREMUSIC & PERFORMING ARTS
🇧🇪	Michael Culture Association (MCA)	Michael Culture Association
🇫🇷	Actronika SAS (ACTRO)	actronika
🇮🇹	Ministero Della Cultura (MIC)	MINISTERO DELLA CULTURA
🇳🇱	Netherlands Academy of Arts and Sciences/ DANS (KNAW-DANS)	KNAW
🇺🇸	Stanford University (SU)	Stanford University
🇬🇧	King's College London (KCL)	KING'S College LONDON

MuseIT

Background

According to a report by The World Bank "One billion people, or 15% of the world's population, experience some form of disability" and that "between 110 million and 190 million people, experience significant disabilities."

Basic human rights have been declared in national and international directives.

- The United Nations' Universal Declaration of Human Rights proclaims human rights for all people, including people with disabilities (article 25), "*to seek, receive and impart information* and ideas *through any media*" (article 19); "*the right to education*" (article 26), "the right to *freely participate in the cultural life and to enjoy the arts*" (article-27).

- The Charter of Fundamental Rights of the European Union, mirrors these basic rights closely.

- Similarly, the Convention on the rights of persons with disabilities is put forward in order to ensure "the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities". Article 9: Accessibility includes an equal right "to *information* and *communications*, including *information and communications technologies* and *systems*". Article 30: "the right of persons with disabilities *to take part on an equal basis with others in cultural life*" and *enjoy access* to "*cultural materials in accessible formats*" and "*places for cultural performances or services*".

https://www.un.org/en/universal-declaration-human-rights/
https://www.citizensinformation.ie/en/government_in_ireland/european_government/eu_law/charter_of_fundamental_rights.html#:~:text=The%20Charter%20of%20Fundamental%20Rights,with%20the%20Treaty%20of%20Lisbon.
https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf

Challenges

i. Accessibility of cultural assets

- by development of multisensory representations and alternative expressions to enable engagement by the public regardless of functional or sensory impairments

ii. Broader engagement with cultural assets and cultural co-creation

- achieved through development of remote inclusive co-creation services for multi-modal born-digital cultural assets, and cultural engagements by a broader public regardless of variations in abilities and perceptual modalities
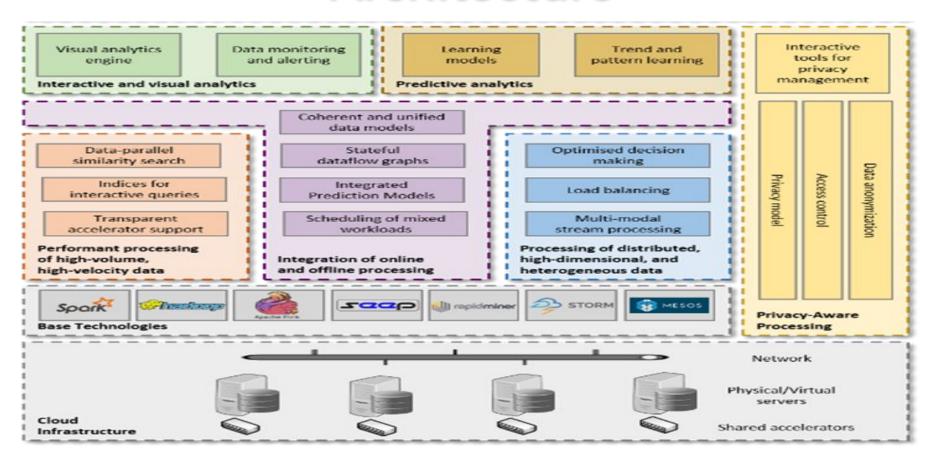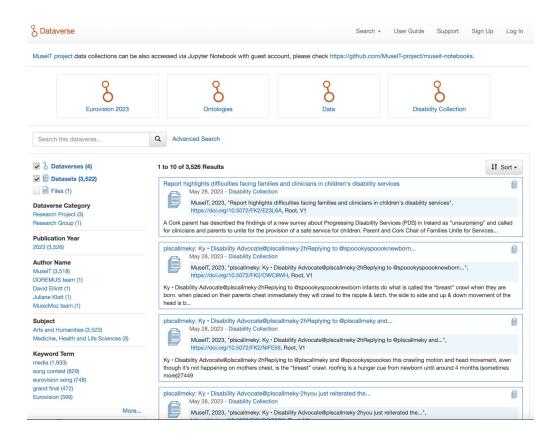
iii. Methodologies for preservation and safeguarding of cultural heritage with inclusion at its core

- achieved through formal specification and novel methodologies for multisensory, layered repository towards (long-term) preservation of cultural assets

Architecture

Interactive and visual analytics
- Visual analytics engine
- Data monitoring and alerting

Predictive analytics
- Learning models
- Trend and pattern learning

Interactive tools for privacy management

Coherent and unified data models

Performant processing of high-volume, high-velocity data
- Data-parallel similarity search
- Indices for interactive queries
- Transparent accelerator support

Integration of online and offline processing
- Stateful dataflow graphs
- Integrated Prediction Models
- Scheduling of mixed workloads

Processing of distributed, high-dimensional, and heterogeneous data
- Optimised decision making
- Load balancing
- Multi-modal stream processing

Privacy model | Access control | Data anonymization

Base Technologies
Spark | hadoop | Apache Flink | seap | rapidminer | STORM | MESOS

Privacy-Aware Processing

Cloud Infrastructure
- Network
- Physical/Virtual servers
- Shared accelerators

Dataverse in MuseIT

Overview of tasks:
- Shared data repository for all WPs
- Different data collections for various use cases: CH materials, metadata, data, ontologies
- Archiving data streams from sensors and VR devices, creating metadata
- Archiving metadata from different modalities without changing their ownerships: papers, news, articles, comments, images, video, audio and lyrics
- Applying AI/ML for metadata enrichment and linkage
- Forcing integration with shared controlled vocabularies in the knowledge graphs

Metadata in MuseIT

Root > MuseIT > Disability Collection >

Can You Get Disability For Anxiety?

Version 1.0

MuseIT, 2023, "Can You Get Disability For Anxiety?", https://doi.org/10.5072/FK2/BCQJST, Root, V1

Cite Dataset ▾   Learn about Data Citation Standards.

Contact Owner   Share

Dataset Metrics ⍰

0 Downloads ⍰

Description ⍰   If you have anxiety that disrupts your ability to care for yourself, you can file for disability. Having a lawyer assist you with the process can help. An anxiety disorders is a common mental health condition, and it's also considered a disability in some circumstances.

Subject ⍰   Arts and Humanities

Keyword ⍰   anxiety disorders, mental health, health condition, receive benefits, social security, security administration, disability benefits, disability lawyer, anxiety disorder, panic attacks, daily activities, type offers, offers benefits, security office, media

License/Data Use Agreement   Custom Dataset Terms

Vocabularies

World Health Organization

Health Topics ∨   Countries ∨   Newsroom ∨   Emergencies ∨   Data ∨   About WHO ∨

Home / Classifications / International Classification of Functioning, Disability and Health (ICF)

International Classification of Functioning, Disability and Health (ICF)

Classifications

International Classification of Functioning, Disability and Health (ICF) ∨

International Classification of Diseases (ICD) ∨

International Classification of Health Interventions (ICHI)

Other Classifications ∨

The International Classification of Functioning, Disability and Health, known more commonly as ICF, is a classification of health and health-related domains.

As the functioning and disability of an individual occurs in a context, ICF also includes a list of environmental factors.
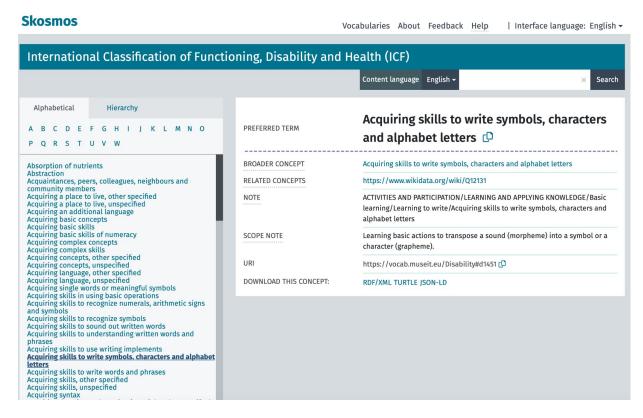
ICF is the WHO framework for measuring health and disability at both individual and population levels.

ICF was officially endorsed by all 191 WHO Member States in the Fifty-fourth World Health Assembly on 22 May 2001(resolution WHA 54.21) as the international standard to describe and measure health and disability.

ICF is based on the same foundation as ICD and ICHI and share the same set of extension codes that enable documentation at a higher level of detail.
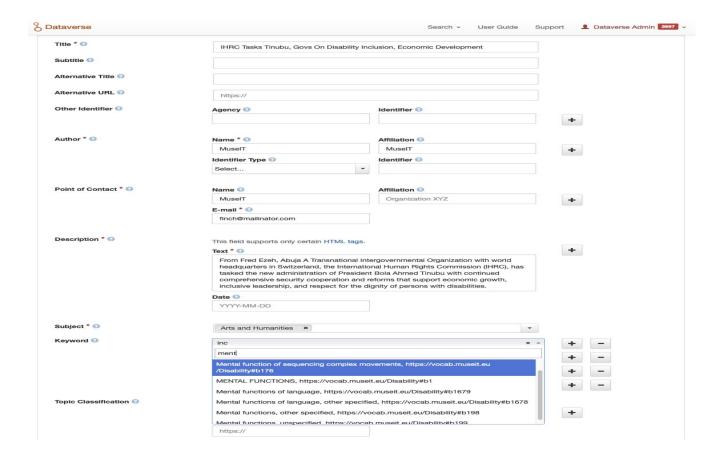
Vocabularies in SKOSMOS

- MuseIT vocabularies available in Skosmos platform
- DANS has contributed external CV integration functionality in Dataverse (2021)
- Curated and (semi)automated CV concepts linkage in metadata

Vocabularies in Dataverse

Objectives and results

Objectives

MuseIT aims to improve:
- Accessibility of cultural assets by development of multisensory representations and alternative expressions to enable engagement by the public regardless of functional or sensory impairments,
- Engagement with cultural assets and cultural co-creation by a broader public (regardless of variations in abilities and perceptual modalities),
- Methodologies for preservation and safeguarding of cultural heritage with inclusion at its core.

Expected results

- Methodologies for multisensory representations and actual multisensory rendering of cultural assets.
- A set of meaning bearing haptic patterns and related haptic maps.
- An immersive environment for virtual user experiences.
- A platform for remote co-creation and performance of music with low to zero latency.
- Methodologies, and an actual repository, for multisensory, multi-layered contents.

So far

- Work has started on all fronts and in all WPs
- Project website and communication channels have been established
- PAB and EAB have been established and expanding
- Literature reviews, Deliverables, User studies, Participatory workshops, ….
- Two public events have been held

Suggestions for collaboration

- Online meetings for knowledge sharing and exchange of ideas with related projects (2 per year)
- Collaboration on communication/dissemination activities
- Organising joint events
- Joint publications
- Open to suggestions

Contact

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For contact with the different partners in the project please see
the project website.

Small demo:
https://kg.zandbak.dans.knaw.nl/graph/text-nodes/

https://www.muse-it.eu/

https://www.youtube.com/@MuseIT-Project

https://www.linkedin.com/company/muse-it/

https://twitter.com/MuseIT_EU