

THE FAIR×CARE MATRIX

Ethical data practise for
intangible cultural heritage

Executive summary

The FAIR×CARE matrix is developed to evaluate the data governance of intangible cultural heritage (ICH) collections, aiming to establish a user-friendly and accessible data practise for sharing and linking ICH data.

Intangible cultural heritage (ICH) is very much alive: practices evolve over time and adapt to a changing world. The prime custodians of this living heritage are the communities, groups and individuals involved with the heritage practice and transmission. It's they who safeguard this heritage for future generations, through a myriad of actions. Article 15 of the 2003 UNESCO Convention for the Safeguarding of ICH clearly states that the safeguarding of ICH cannot be achieved without their **widest possible participation**.

As of today, such a deeply participatory approach to heritage care is still not customary in relation to many other types of heritage. This also implies that **existing approaches and methodologies for linking data**, which are commonly applied to *tangible heritage* items -such as paintings, manuscripts, images, etc.- **cannot and should not be directly applied within the context of (meta)dating ICH**, since most of these approaches do not premise the outspoken involvement of the communities concerned.

immaterieelerfgoed.be is a participatory website for ICH in the region of Flanders (Belgium). The website is managed by (NGO) Workshop Intangible Heritage, the lead organisation for safeguarding living heritage in Flanders involving a wide network of heritage communities and stakeholders. On the platform, these communities and stakeholders describe their practices and safeguarding actions via a registration form. The data thus collected consists of the title of the heritage, spatial and temporal data, descriptive information on the practice itself, and some categorising data. After registration, which is often done in active interaction with a staff member of the Workshop, the ICH becomes visible on immaterieelerfgoed.be. The submitter, who serves as cultural custodian for their heritage community, can edit the data via the front-end user interface at any time.

This co-creation method, which is also referred to as *shared stewardship*, enables communities to register and manage their living heritage practise themselves.

Linking data on the semantic web often starts with the premise that data should be as open as possible and have as open rights as possible. The **FAIR data principles** nuances this assumption. It stands for Findable, Accessible, Interoperable and Reusable and offers guidance on how to establish a strong, persistent data management policy. FAIR data sharing has become a matter of course in the pursued data practice in the digital ecosystem of the cultural heritage sector in Flanders in recent years. The FAIR principles thus mainly focus on creating the right conditions to make data as shareable and interoperable as possible.

The CARE Principles for Indigenous Data Governance are **people and purpose-oriented**, reflecting the crucial role of data in advancing Indigenous innovation and self-determination. These principles **complement the existing FAIR principles encouraging open and other data movements to consider both people and purpose in their advocacy and pursuits**.

GIDA, 2019, own emphasis

In 2019, the Global Indigenous Data Alliance (GIDA), an international network promoting indigenous data sovereignty and governance, published the **CARE principles**, putting the rights, people and goals of indigenous communities and their data at the centre:

CARE stands short for **Collective benefit, Authority to control, Responsibility and Ethics**.

Collective Benefit

Also known as *digital return*. The data ecosystems should focus on the benefits of data sharing for the community, meaning that the primary goal should be the safeguarding of the ICH practice, rather than the interest of the collecting institution and the general public.

Authority to Control

With free, prior, informed and sustained consent on the collection and the (re)use of the data, the ICH community must be able to determine how it is represented and how their data is stored. In this *shared stewardship* communities and heritage organisations govern ICH collections and data together. Both **shared stewardship** and **accompanying data sovereignty** presuppose a well-developed plan that takes shape as a **data governance structure**. Such **data governance structure** comprises the set of guidelines, protocols and decision-making structures around data governance in an organisation. **Data sovereignty** (AIATSIS, 2020) helps heritage communities and institutions understand their influence on the data governance:

- Who decides what data is collected?
- How is the data stored?

Responsibility

The heritage institution has the responsibility to ensure that the community comprehends how their data is being used. Transparent communication is crucial, along with data literacy within the community, which should be facilitated by the heritage institution if necessary.

Ethics

A respectful relationship with the community and regard for their well-being should be prioritised throughout all stages of the **data life cycle**, i.e. collection building, interpretation, preservation, curation and reuse of the data across the data ecosystem.

All of these factors mean that metadata on provenance, purposes/protocols, and permissions should be included. This machine-readable **cultural metadata** makes clear how the data should be treated:

- **Provenance:** Who or which community is the source of the data?
- **Protocols and purposes:** This metadata provides context about the use and goals of the data and knowledge of the ICH practice, helping to minimise potential harm from data sharing.
- **Permissions:** Information about the correct (re)use of data throughout the data lifecycle, such as intellectual property rights and/or (re)use licences.

At Workshop Intangible Heritage, we created a **method to evaluate existing practices based on the FAIR and CARE principles of data sharing**. This **FAIR × CARE matrix** (in [appendix 1](#)) aligns with the shared stewardship and data governance principles, enabling us to measure current data practices and identify necessary actions to achieve an ethical data governance.

Data governance rests on four founding principles: data quality, data stewardship, data protection and data management. Data quality corresponds with the FAIR principles. The conditions for data stewardship are outlined in the CARE principles and shared stewardship. Data protection involves intellectual property rights and copyrights, re-use licensing, GDPR compliance, and all aspects of cyber security. Data management encompasses the measures necessary to establish, adhere to, and maintain a data governance structure.

By detailing this data governance structure in a matrix, we can analyse each part of the data life cycle to the extent that the FAIR, CARE, and data governance properties fit the data practices of immaterieelerfgoed.be, both now and in the future.

The actions formulated as a result of the matrix can be divided into four main categories: those related to the registration form, the terms of use and privacy policy of the platform, the data model, and UX and back-end developments. Most actions involve establishing more checks and balances for data sharing permissions, standardising metadata to ensure data interoperability, and implementing digital developments to support these efforts.

It is important to note that **the platform does not aim to provide a comprehensive overview of all living heritage in Flanders.** Instead, the ICH practices featured on the platform are those that the involved communities wish to showcase themselves. So the question for immaterieelerfgoed.be on data sharing is not so much about restrictions on consultation, but about the use of the data once it leaves the context of immaterieelerfgoed.be.

Currently, the data practice of immaterieelerfgoed.be is limited to data collection (via the registration form) and front-end presentation. Further data sharing has been paused until ethical sharing can be ensured. This requires a clear policy and approval checks in the registration form. Users need to understand reuse licences (such as Creative Commons or Traditional Knowledge Labels), making data literacy essential in the registration process.

The registration form will be revised to allow the community to choose which data are shared and how they are presented, while maintaining mandatory fields for consistency and also allowing for consent withdrawals. Visitors of immaterieelerfgoed.be should be clearly informed about the rights and licences of the content shared by the communities. As the API opens up and data is shared according to FAIR principles, reuse licences must be included in the data model. Incorporating cultural metadata will provide users of immaterieelerfgoed.be and the API with information about the data's origin and usage guidelines.

A balance must be established between obtaining sufficient data with checks on consent while maintaining user-friendliness. It is important to note that so far, we have hardly received any questions from the communities in this respect. Co-creation and co-management are taken for granted, as the platform was set up from day one as a community platform. This allows for a **pragmatic approach to the principles** and makes it easier to find a balance between theory and practice. The goal is to **prioritise the community's data sovereignty without creating high barriers**, such as an overly complex registration form.

An essential part of data sharing is connected to legal checks to protect knowledge of the ICH communities, and/or copyright issues on images and derivative items.

The effectiveness of legal tools for safeguarding ICH practices and knowledge is limited. The main challenge in applying intellectual property rights to ICH lies in the strong focus on ownership, rather than communal interest or collectivity. Intellectual property rights seek to identify a specific owner of the creation and authorship, while living heritage is passed down from generation to generation and gradually adapted. This does not adequately protect the collective and communal aspects of ICH, as there is often no single identifiable author or creator.

Given the primary goal of immaterieelerfgoed.be, which is to provide a platform for communities to share a description on their living heritage practices with the interested public, we can assume that data and audiovisual materials can be licensed with a **Creative Commons licence**. The use of the knowledge however, like certain recipes used for commercialisation,

can be mastered with purposes and permission labels. **Traditional Knowledge Labels** might be a solution to look into, as this provides structured and machine-readable labels.

Traditional Knowledge (TK) labels, as developed by Local Contexts, identify and clarify community-specific rules and responsibilities for accessing and using traditional knowledge. These labels incorporate local protocols for the digital circulation of ICH outside the heritage community. In other words, these TK labels enable the addition of local, cultural, historical context, and cultural custodians to heritage data.

Including these cultural metadata can guide us in determining the appropriate legal protections required for sharing data on ICH. This process should be managed with great care and consideration regarding the implications for the involved communities. Additionally, we will need to further investigate the **implications of evolving technologies**, such as AI and a more integrated semantic web for heritage applications, which may extend beyond documentation and education, i.e. tourism or commercialisation.






By using the **FAIR × CARE matrix** to assess the data governance on immaterieelerfgoed.be, we aim to create a **user-friendly and accessible data method that will empower and encourage ICH communities** through a feasible and pragmatic approach.

This approach **promotes ethical data practices, maximises the impact of living heritage data, and enhances digital returns for communities.** Connecting to the semantic web is the next step in safeguarding ICH, enabling new ways of discovering, analysing, and interpreting it.

A robust digital governance structure is essential for this. By integrating FAIR and CARE principles, we aim to achieve inclusive, transparent, and ethically responsible data sharing, putting the living heritage communities and their heritage at the centre.

Sources

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- Carroll, S, et al. 2020. The CARE Principles for Indigenous Data Governance. Data Science Journal, 19: XX, pp. 1–12. <https://doi.org/10.5334/dsj-2020-042>
- Traditional Knowledge Labels, Online resource: <https://localcontexts.org/labels/traditional-knowledge-labels/>

DATA LIFE CYCLE	CARE requirements	FAIR requirements	Data sovereignty	Current situation	What actions are needed?	Action category
 Collection building	Collective Benefit			Safeguarding of ICH by reflecting on ICH, visibility, etc.		
	Authority to Control			Registration of the ICH practice is done by the community itself, in collaboration with a staff member of Workshop Intangible Heritage		
	Authority to Control			The community can edit the registration in the front-end UI		
	Authority to Control			The community cannot choose the license for data sharing	The registration form should be actualised so the community can choose a reuse license based on the datatype	Registration form
	Authority to Control		Who decides what data is collected?	The data fields of registration form is prepared by the Workshop, with mandatory fields determined by the Workshop.	Determine the minimum data required - include it in the terms of use - Mention in the registration form why we need this data (informed consent).	Registration form
	Responsibility		Transparent communication to enable informed decisions.		The registration form must provide sufficient information about the potential reuse of data.	Registration form
	Ethics		Well-being of the ICH community is put central	Personal guidance during registration - self-definition.		
	Ethics			The Workshop operates with a clear ethical framework based on the UNESCO 2003 guidelines.		
	Ethics: <i>provenance</i>			The name of the community is always included in the data.	Determine to what extent this conflicts with GDPR	Registration form
 Interpretation of the data				Not applicable since data is determined together with the community (front-end presentation is the collected data).		
		Data standards		Data export is difficult to map to current common data standards such as CIDOC-CRM and OLSO. There are many descriptive fields and a lack of authority links.	Consider data mapping to standard formats (location, time-bound data). Additionally, note that the model for ICH data in OSLO/CIDOC-CRM is still in the testing phase.	Data Model
 Data storage / Preservation			Who decides what data is stored?	Back-end and servers: The decision regarding data infrastructure is entirely made by WIE.	Determine whether communities want more input in this area. Explore how this can be organized differently or if it should be included as a fundamental condition in the terms of use.	Terms of Use
 Circulation		Findable		Front-end presentation of the data		
		Findable		Indexation by search engines		
		Accessible		On immaterieelerfgoed.be		
	Authority to Control	Accessible	Access conditions / authentication requirements	Explicit intention of ie.be to present ICH practices on the front-end	This is already included in the terms of use but needs to be made more explicit	Terms of Use + registration form
	Authority to Control	Accessible	Access conditions	Access conditions for the data: cultural custodians of the community have access to the front-end UI where they can make adjustments. Workshop staff have access to the back-end. Changes to the data are always made at the initiative of or in consultation with the community. Access conditions for users: the API is not open but is accessible via the front-end.	Determine if the community agrees that Workshop staff have access to the data. Exception: for the Inventaris Vlaanderen, no changes can be made to the data after it has been added to the list (this needs to be clarified).	Terms of Use + registration form
	Ethics	Accessible	Intellectual property rights	Automatically assigned (CC-BY-SA NC 3.0) upon data upload.	Decision tree to guide license choice + promote data literacy	Registration form
	Ethics		Intellectual property rights	Copyright for images: no standardized license. However, users must agree to the statement: "I have the rights to this image / received permission from the rights holder(s) to use it."	Decision tree to guide the selection of a CC license.	Registration form
	Responsibility		Data literacy	Explanation about assigned licenses is currently included in the terms of use.	more and simpler explanations are needed in the registration form	Registration form
	Ethics: <i>harm reduction</i>			At this time, no information that could be potentially harmful to the community is being recorded.	Sustaining a feedback culture where communities can easily contact the Workshop to report such issues.	Front-End UI
	Ethics: <i>provenance</i>		Provenance data		Add provenance data in exported data	Registration form + data model
	Ethics: <i>purposes</i>		The community can decide how the data is shared on the front-end.	Sharing practices on ie.be aligns with the goal of ie.be, which is the safeguarding of intangible cultural heritage.		
Ethics: <i>permissions</i>			All entered data is displayed on the front-end of ie.be.			
 Reuse of data				Not yet applicable: the API has not yet been enabled.		
		Interoperability			Structured data model for ie.be	Data model
		Interoperability			The export needs to be refined.	Back-end dev + datamodel
		Interoperability			Assign pURLs to ie.be practices along with the necessary approval from the community.	Data model + pURI development
		Reusable			Each data type and field must have a reuse license assigned (machine-readable).	Data model
		Reusable			Mapping out how data can be made even more reusable.	Data model
		Reusable			Open the API with the necessary protocols.	back-end dev + datamodel
	Collective Benefit: Digital Return			Beyond the front-end presentation, there have been few concrete applications so far. In 2023, data export, mapping, and data ingestion to Wikidata will be part of the Wiki Loves Living Heritage project.	Standardizing data, guiding communities towards potential applications, and establishing partnerships with other cultural partners (e.g., UitDatabank).	Guiding communities towards potential applications
	Responsibility		The community is centralised		Develop detailed reuse licenses and consider implementing labels such as Traditional Knowledge (TK) labels.	Registration form
	Responsibility		Who decides on research, policy, and reuse?	Currently, all data (except community account information) is displayed on the front-end of immaterieelerfgoed.be and is indexed by search engines. The text falls under the CC BY-SA-NC 3.0 license, but this is not communicated to visitors of the practice pages.	For each data type, assign reuse licenses and potentially labels such as Traditional Knowledge (TK) labels. Ensure clear communication on the front-end about these reuse licenses.	Registration form + front end dev



More information? Get in touch!

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