Towards an Open Government Data policy

for Indigenous Peoples' Digital Cultural Heritage

The implementation of the CARE Principles:

an ethical issue

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DESIS café', Rovaniemi - 21.6.2023

UNIVERSITY OF LAPLAND
LAPIN YLIOPISTO

PromoTing Sustainable PRactices for
Digitalizing IndigenoUS CulTural Heritage -
Global North and South Juxtaposed (TRUST)

The implementation of the CARE Principles

Questions/Issues

- **What is Open (Government) Data and why it is/has been problematic form the point of view of Ethics and Digital Indigenous Cultural Heritage? (examples: Exploitation of Research Data, Religious and Traditional sensitive data …);**
- **Answers: provide some possible solutions.**

The implementation of the CARE Principles

Questions/Issues

- **How to open and pave a realistic way "Towards an Ethical, Accountable, Sustainable (and Resilient) Use and Re-use of "Indigenous Open Government Data"?**

✓ Targeted Legal provisions for Indigenous CH;

✓ Soft-law measures; tools like guidelines ;

✓ 'Ethics-by-design', Ethic Impact Assessment : Ethical Canvas

✓ Strong policy of Data Stewardship,

✓ Ensure Cyber security and Cyber resilience;

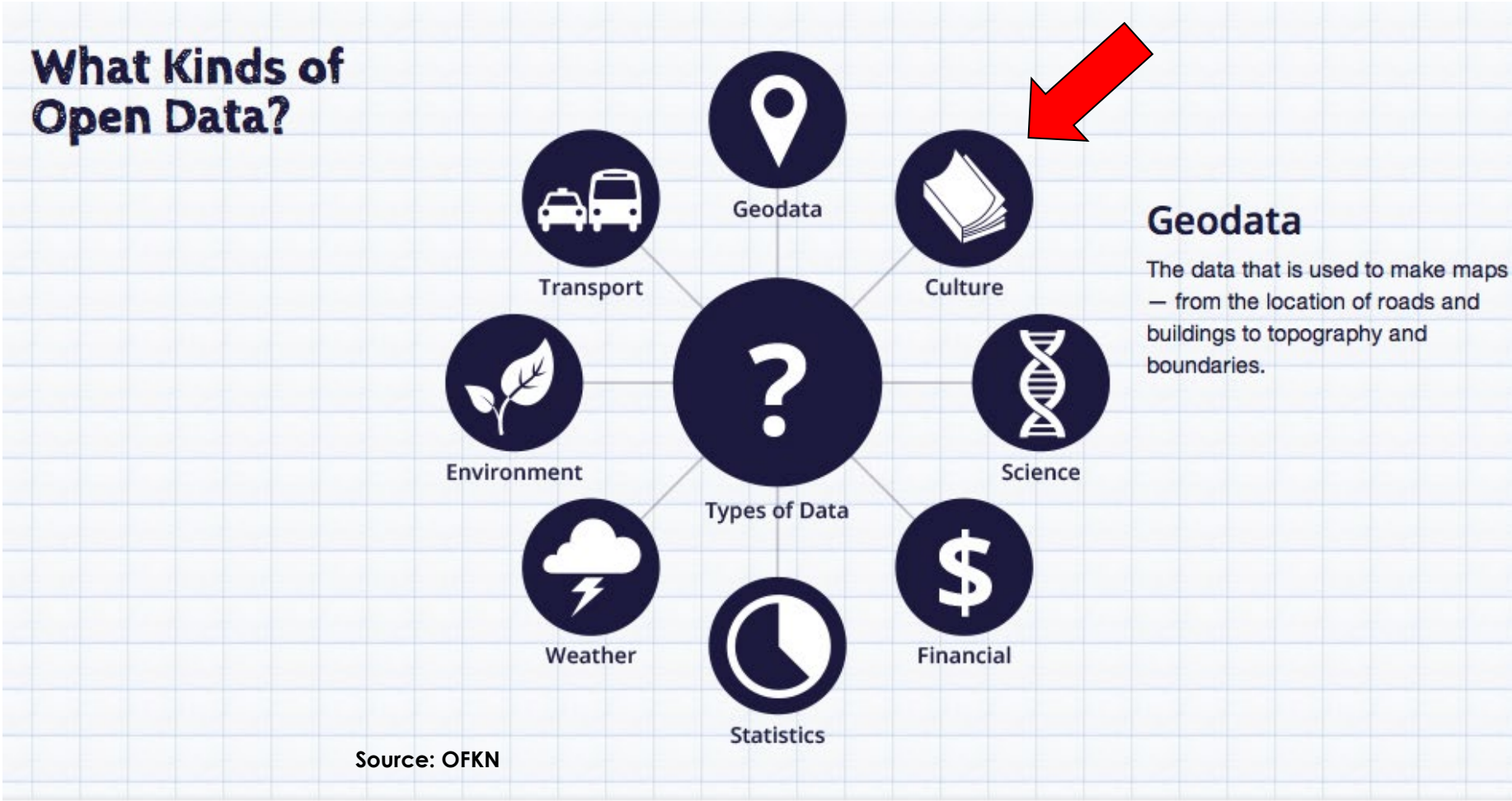
- This short presentation addresses these issues by making concrete propositions for **how to strike a fair balance** between the various interests at stake relying on different regulatory means **towards a revised and modern Open Government Data policy for Indigenous Peoples' Cultural Heritage.**

Open Data Definition

Open Data Directive
2019/1024/EU

(16) | Open data as a concept is generally understood to denote data in an open format that can be freely used, re-used and shared by anyone for any purpose. Open data policies which encourage the wide availability and re-use of public sector information for private or commercial purposes, with minimal or no legal, technical or financial constraints, and which promote the circulation of information not only for economic operators but primarily for the public, can play an important role in promoting social engagement, and kick-start and promote the development of new services based on novel ways to combine and make use of such information. Member States are therefore encouraged to promote the creation of data based on the principle of 'open by design and by default', with regard to all documents falling within the scope of this Directive. In doing so they should ensure a consistent level of protection of public interest objectives, such as public security, including where sensitive critical infrastructure protection related information are concerned. They should also ensure the protection of personal data, including where information in an individual data set does not present a risk of identifying or singling out a natural person, but when that information is combined with other available information, it could entail such a risk.

What Kinds od Open Data?



Open and Machine-readable formats identify, recognise and extract specific data

(35) A document should be considered to be in a machine-readable format if it is in a file format that is structured in such a way that software applications can easily identify, recognise and extract specific data from it. Data encoded in files that are structured in a machine-readable format should be considered to be machine-readable data. A machine-readable format can be open or proprietary. They can be formal standards or not. Documents encoded in a file format that limits automatic processing, because the data cannot, or cannot easily, be extracted from them, should not be considered to be in a machine-readable format. Member States should, where possible and appropriate, encourage the use of a Union or internationally recognised open, machine-readable format. The European interoperability framework should be taken into account, where applicable, when designing technical solutions for the re-use of documents.

Open Data Directive
2019/1024/EU

Exploitation of Cultural Heritage Resources Digitisation

(9) There are numerous cooperation arrangements between libraries, including university libraries, museums, archives and private partners, which involve digitisation of cultural resources granting exclusive rights to private partners. Practice has shown that such public-private partnerships can facilitate worthwhile use of cultural collections and at the same time accelerate access to the cultural heritage for members of the public. It is therefore appropriate to take into account current divergences between Member States with regard to digitisation of cultural resources, by a specific set of rules pertaining to agreements on digitisation of such resources. Where an exclusive right relates to digitisation of cultural resources, a certain period of exclusivity might be necessary in order to give the private partner the possibility to recoup its investment. That period should, however, be limited to as short a time as possible in order to comply with the principle that public domain material should stay in the public domain once it is digitised. The period of an exclusive right to digitise cultural resources should in general not exceed 10 years. Any period of exclusivity longer than 10 years should be subject to review, taking into account technological, financial and administrative changes in the environment since the arrangement was entered into. In addition, any public private partnership for the digitisation of cultural resources should grant the partner cultural institution full rights with respect to the post-termination use of digitised cultural resources.

Public Sector Information - PSI – Directives 2003/98/EC – 2013/37/EU -2019/1024/EU

Exploitation of (Digital) Cultural Resources
In the GLAM Sector
Indigenous Cultural Heritage Digital Assets

(14) **The scope of Directive 2003/98/EC should be extended to libraries, including university libraries, museums and archives.**

(15) **Libraries, museums and archives hold a significant amount of valuable public sector information resources**, in particular since **digitisation projects have multiplied the amount of digital public domain material**. These **cultural heritage collections and related metadata** are a **potential base for digital content products and services** and have a huge potential for innovative re-use in sectors such as learning and tourism. Wider possibilities for re-using public cultural material should, inter alia, allow Union companies to exploit its potential and contribute to economic growth and job creation.

Public Sector Information - PSI – Directives 2003/98/EC – 2013/37/EU

Exploitation of (Digital) Cultural Resources
Research Data
Indigenous Cultural Heritage Digital Assets

(9) | 'research data' means documents in a digital form, other than scientific publications, which are collected or produced in the course of scientific research activities and are used as evidence in the research process, or are commonly accepted in the research community as necessary to validate research findings and results;

Public Sector Information - PSI – Directives 2003/98/EC – 2013/37/EU

(27) | The volume of research data generated is growing exponentially and has potential for re-use beyond the scientific community. In order to be able to address mounting societal challenges efficiently and in a holistic manner, it has become crucial and urgent to be able to access, blend and re-use data from different sources, as well as across sectors and disciplines. Research data includes statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings and images. It also includes meta-data, specifications and other digital objects. Research data is different from scientific articles reporting and commenting on findings resulting from their scientific research. For many years, the open availability and re-usability of scientific research data stemming from public funding has been subject to specific policy initiatives. Open access is understood as the practice of providing online access to research outputs free of charge for the end user and without restrictions on use and re-use beyond the possibility to require acknowledgement of authorship. Open access policies aim in particular to provide researchers and the public at large with access to research data as early as possible in the dissemination process and to facilitate its use and re-use. Open access helps enhance quality, reduce the need for unnecessary duplication of research, speed up scientific progress, combat scientific fraud, and it can overall favour economic

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growth and innovation. Beside open access, commendable efforts are being made to ensure that data management planning becomes a standard scientific practice and to support the dissemination of research data that are findable, accessible, interoperable and re-usable (the FAIR principle).

Public Sector Information - PSI – Directives 2003/98/EC – 2013/37/EU

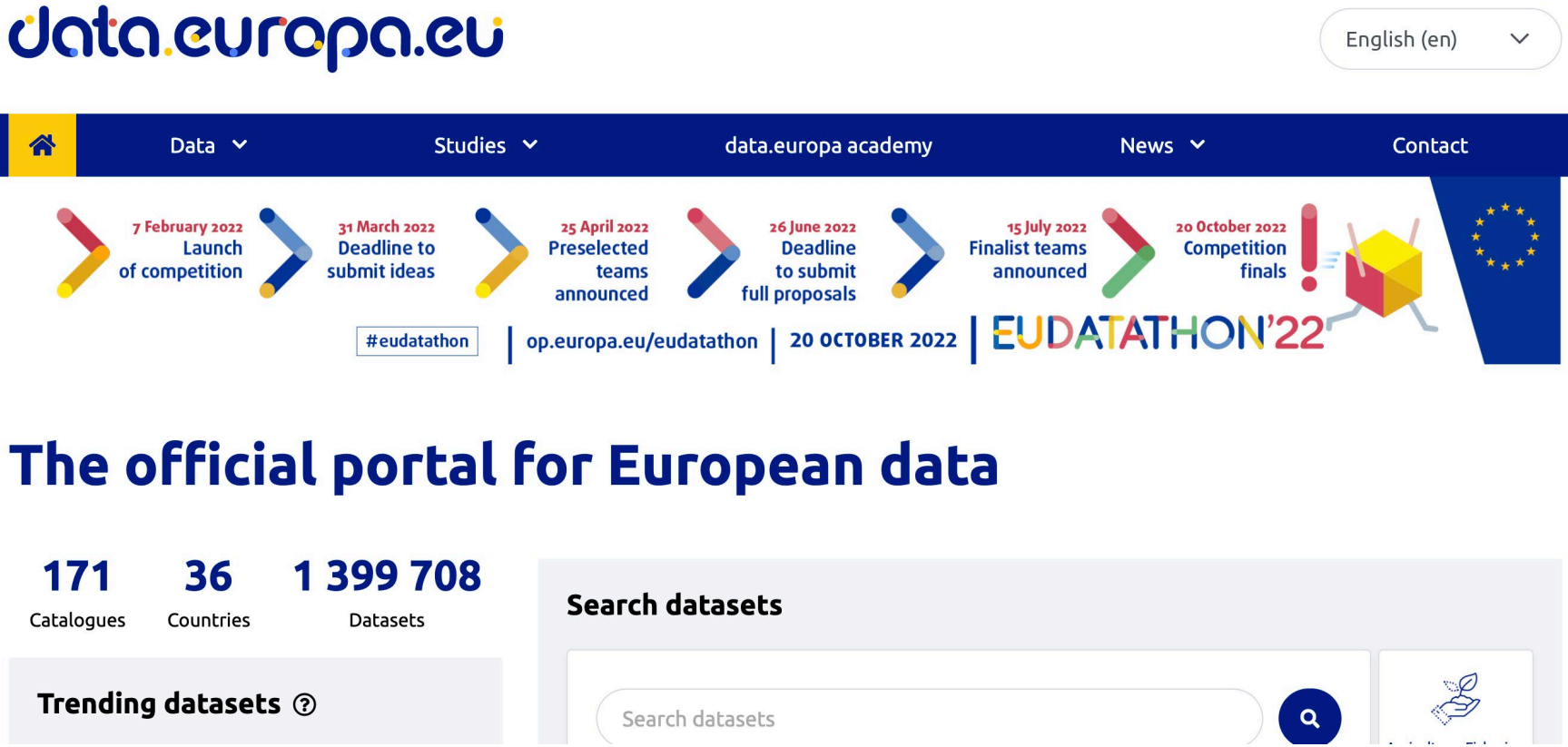
Article 10

Research data

1. Member States shall support the availability of research data by adopting national policies and relevant actions aiming at making publicly funded research data openly available ('open access policies'), following the principle of 'open by default' and compatible with the FAIR principles. In that context, concerns relating to intellectual property rights, personal data protection and confidentiality, security and legitimate commercial interests, shall be taken into account in accordance with the principle of 'as open as possible, as closed as necessary'. Those open access policies shall be addressed to research performing organisations and research funding organisations.

2. Without prejudice to point (c) of Article 1(2), research data shall be re-usable for commercial or non-commercial purposes in accordance with Chapters III and IV, insofar as they are publicly funded and researchers, research performing organisations or research funding organisations have already made them publicly available through an institutional or subject-based repository. In that context, legitimate commercial interests, knowledge transfer activities and pre-existing intellectual property rights shall be taken into account.

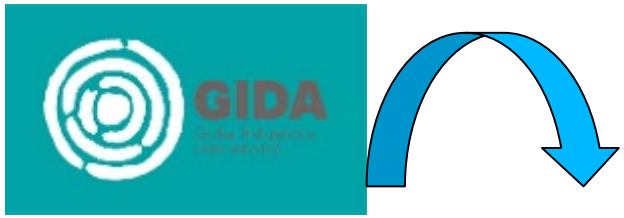
OGD - Basic website



https://data.europa.eu/fi

Current and Future Situation

- **FAIR principles for scientific data management and stewardship**
- **The Global Indigenous Data Alliance (GIDA)**



- **IMPLEMENTATION OF THE CARE Principles for Indigenous Data Governance**

CARE Principles
for Indigenous
Data Governance

Current Situation

CARE and FAIR

Image source: Global Indigenous Data Alliance (GIDA)

The CARE principles reflect the crucial role of data in advancing Indigenous innovation and self-determination. They ensure that data movements like the open data movement, whatever they're advocating and pursuing, respect the people and purpose behind the data.

The CARE principles complement the existing FAIR principles, which require data to be findable, accessible, interoperable and reusable. While the FAIR principles are about making it easier to share and reuse data, the CARE principles ensure that data is used ethically.

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Welcome to the first international conference on Sámi Research Data Governance. This conference focuses on identifying and discussing issues concerning Sámi data governance. (Registration is now closed)

With an increasing awareness of the necessity for the ethical and responsible handling of indigenous knowledge and data, there is a need to gather both sámi and non-sámi researchers for collaboration around this topic.

This conference aims to provide a forum for the sharing of knowledge and experiences in indigenous data governance and management so as to further our understanding of the important issues in this field, and with the larger goal of guiding better informed policies in the Nordic countries.

https://uit.no/research/sshf-no/project?pid=788403

GIDA
Global Indigenous Data Alliance

HOME ABOUT US CARE PRINCIPLES DATA RIGHTS RESOURCES GALL

GIDA
Global Indigenous Data Alliance

Promoting Indigenous Control of Indigenous Data

CARE Principles for Indigenous Data Governance

CARE: Indigenous rights and open data

FEATURE The development towards open science and increased access to research data is seen as great progress as well as a source of tension among indigenous peoples, as there are concerns about ethical issues as data becomes more widely available. The CARE principles are proposed as a way forward.

CARE Principles for Indigenous Data Governance

Indigenous Data Governance Principles

Collective Benefit

Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data.

Indigenous Data Governance Principles

Authority to Control

Indigenous Peoples' rights and interests in Indigenous data must be recognised and their authority to control such data be empowered. Indigenous data governance enables Indigenous Peoples and governing bodies to determine how Indigenous Peoples, as well as Indigenous lands, territories, resources, knowledges and geographical indicators, are represented and identified within data.

Indigenous Data Governance Principles

Responsibility

Those working with Indigenous data have a responsibility to share how those data are used to support Indigenous Peoples' self-determination and collective benefit. Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.

Indigenous Data Governance Principles

Ethics

Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and across the data ecosystem.

E1

For minimizing harm and maximizing benefit

Ethical data are data that do not stigmatize or portray Indigenous Peoples, cultures, or knowledges in terms of deficit. Ethical data are collected and used in ways that align with Indigenous ethical frameworks and with rights affirmed in UNDRIP. Assessing ethical benefits and harms should be done from the perspective of the Indigenous Peoples, nations, or communities to whom the data relate.

E2

For justice

Ethical processes address imbalances in power, resources, and how these affect the expression of Indigenous rights and human rights. Ethical processes must include representation from relevant Indigenous communities.

E3

For future use

Data governance should take into account the potential future use and future harm based on ethical frameworks grounded in the values and principles of the relevant Indigenous community. Metadata should acknowledge the provenance and purpose and any limitations or obligations in secondary use inclusive of issues of consent.

Need of a Multidisciplinary Approach for Preserving Indigenous Digital Cultural Heritage Dataserts

- **Economical Aspects: Charging - Business Models** - **Revenue Streams** - Cultural Heritage Institutions GLAM - Cultural Heritage Economy – Real-life cases – Good practices
- **Ethical Aspects:** Ethical principles**, Examining Biases in GLAM Data and Metadata** – Sustainability-Developing a BM Ethical Canvas for OGD – Data Stewardship
- **Legal Aspects:** Transparency – Openness - Right of Access –Right to Knowledge - Accountability - Data Protection, Copyright, Licences, Case Law
- **Digitisation and Technological and Sematic Web Aspects:** Formats – Standards – Interoperability - permanent linking - URIs – Metadata – Machine Readable – Advanced technologies, such as **3D**, **artificial intelligence, extended reality**, cloud computing, data technologies and **blockchain**, ensure a more efficient process of digitisation and **digital preservation** and a higher quality content for a wider access, use and reuse.

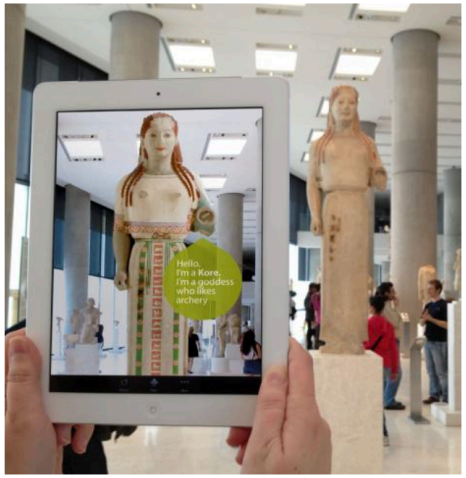
Normative at EU Level
in between the *de lege lata* and the *lege ferenda*

A European Strategy for data - European data Space for Cultural heritage

- **Directive (EU 2019/1024) on Open Data and Public Sector Information (PSI)**
- **"Data Governance Act" (EU 2022/868) - the upcoming "Data Act" (COM/2022/68 final)**
- **Artificial Intelligence Act" (COM/2021/206 final)**
- **Digital Single Market Directive" (EU 2019/790)**
- **GDPR - General Data Protection Regulation (EU 2016/679)**
- **Cybersecurity Act (EU 219/881)**
- **Commission Recommendation of 27 October 2011 on the digitisation and online accessibility of cultural material and digital preservation**

Digital cultural heritage

Cultural heritage is evolving rapidly thanks to digital technologies. The momentum is now to preserve our cultural heritage and bring it to this digital decade.



Unprecedented opportunities brought by technologies, such as Data, AI, 3D and XR brings cultural heritage sites back to life. Virtual museums offer visitors the possibility to see art works in context and experience objects or sites inaccessible to the public. The transformation of the sector is resulting in easier online access to cultural material for everybody.

The European Commission Directorate General for Communications Networks, Content & Technology has conducted extensive policy coordination and funding actions to supplement Member States' cultural policy. These actions cover the areas of digitisation, online access to cultural material and digital preservation.

The role of the European Commission

The European Commission fuels the policy debate and brings stakeholders together to improve the framework conditions for digitisation and digital preservation. It does so through its Recommendation on a common European data space for cultural heritage.

The European Commission's Expert Group on a common European Data Space for Cultural Heritage (CEDCHE) monitors progress towards the implementation of the Commission's Recommendation. The CEDCHE reviews and discusses policies for digital cultural heritage and the upcoming initiative for a common European data space. It also facilitates the exchange of information and good practices working closely with cultural institutions.

https://digital-strategy.ec.europa.eu/en/policies/cultural-heritage

Brussels, 10.11.2021
C(2021) 7953 final

COMMISSION RECOMMENDATION

of 10.11.2021

on a common European data space for cultural heritage

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011H0711

Ethical and Responsible Use and Re- use of Open Government Data Datasets

What is responsible data re-use?

The Responsible Data Forum describes responsible data as a **duty** to ensure people's rights to **consent, privacy, security and ownership** around the information processes of **collection, analysis, storage, presentation and re-use**, while also respecting the values of **transparency and openness.**

Responsible re-use of government data is an absolute must for any organization that seeks to have a reputational profile in an international and national market scenario.

https://www.europeandataportal.eu/sites/default/files/report/2015_ethical_and_responsible_use_of_open_government_data.pdf

Ethical and Responsible Use and Re-use of Open Government Data Datasets

Cognitive Bias in the creation of the dataset.

We must define rules and technical mechanisms for detecting cognitive bias in the creation of the dataset in order to avoid discriminations, stereotyping, crystallization, distortion of the history, misrepresentation of reality, manipulation of the cultural identity of a country/community.

Prohibition to use the dataset for unethical purposes.

We must define rules and technical mechanisms for avoiding unethical usage of the dataset. The ethics code is one instrument.

Ethical and Responsible Use and Re-use of Open Government Data Datasets

Explicability in case of AI.

Conclusively, we should address and point out the final scope of the document giving the support to the TM project in terms of legal and ethical issues.

The explicability is a principle introduced by the High-level group on AI of the European Commission with the intention to reinforce the ethical instruments in the AI domain and to support transparency, accountability of the automatic decision system, auditability of black box of algorithms. The explicability in this definition is applicable also to the dataset lifecycle that should be traceable, transparent in the semantic and in the data model, transparent in the provenance and in the modifications over the time. This means to explain the method of anonymization, the algorithm of aggregation, the model of classification of the datasets, the training set in case of deep learning or machine learning.

Ethical and Responsible Use of Open Government Data
Some tentative Conclusions

- **EU normative are expected to strongly influence Member States' policies and legislations** related to open access as well as the sustainable digitisation and preservation of cultural heritage assets.
- On the one hand, these new legal frameworks might lead to **significant opportunities for Indigenous Peoples to preserve digitised datasets for future generations and to contribute to the economic growth**.
- On the other hand, however, they also **raise numerous challenges related to the central decision of whether and to what extent to make Indigenous cultural heritage datasets available in Open Data format**.
- Concerns include issues of **data sovereignty**, such as **data ownership**, **control, access, collection, storing and custody of data.**

Ethical and Responsible Use of Open Government Data
Some tentative Conclusions

- Addressing these key issues requires bringing to the discussion **ethical perspectives** that are indeed central to the exploitation of Indigenous cultural heritage data.

- Specifically, these EU rules should be implemented considering an **appropriate policy and suitable instruments that protect Indigenous people's interests on their own cultural heritage and that tackle 'data colonization' practices.**

- The research addresses these issues by making concrete propositions for **how to strike a fair balance between the various interests at stake** relying on different regulatory means towards a revised and modern Open Government Data policy for Indigenous Peoples' Cultural Heritage.

Towards an Open Government Data policy

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Thank you!
Question?

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