# Electronic, didactic and innovative platform for learning based on multimedia assets





# D7.3: Sociocultural Contextualization Policy Version No1.3 28 February 2023

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<sup>(\*)</sup> According to the section "Review and Submission of Deliverables" of the Project Handbook





# 1. Technical References

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#### 3. Introduction

#### 3.1. Executive Summary

This deliverable is developed in the context of Work Package 7 of the Project (WP7): Data management and ethics, gender, privacy, security, and regulatory aspects. The main aim of WP7 is to develop a legal and ethical framework to guide all aspects of R&D within the project. Specifically, it aims to provide guidance on compliance with legal frameworks on software and tools development, access of the target groups, multiplication and communication of the outcomes, cybersecurity and data protection and establish sustainable governance for the data infrastructure.

Moreover, the WP7 will provide guidance on aligning all project actions and outcomes with sociocultural issues and contexts at local and EU levels, including aspects of gender, sustainable development, and diversity. In general, the legal and ethical framework that will be developed in this WP shall follow the structure as laid out in the Ethics Guidelines for Trustworthy AI report by the European Commission<sup>1</sup>, but also adapt this structure to best fit the specific aims and application of e-DIPLOMA.

Considering the above, this report aims in developing a guiding policy document which will also serve as a common statement of the project partners, which will drive the compliance of all project's outcomes and tools with *sociocultural aspects*, which will have a positive impact in the promotion of inclusiveness, sustainable development, gender mainstreaming and diversity. This policy will be aligned with the principles of Responsible Research and Innovation (RRI), which is a key action within the 'Science with and for Society' objective of the European Commission's Horizon Europe Programme, representing a way of thinking that balances commercial and other goals of research activities and technological innovation with those concerned with wider wellbeing. It also takes into consideration the recent declaration of the European Commission on Digital Rights and Principles for the Digital Decade<sup>2</sup>, as well as other policies and principles as listed in the sources below.

## 3.2. Relation to Other Project Documents

The following documents overruled the present document:

- Grant Agreement (GA) and their Annexes: (Annex 5, Article 17)
- Consortium Agreement (CA)

#### 3.3. Abbreviation List

Below is included the list of the acronyms that are used in the present document:

<sup>&</sup>lt;sup>1</sup> Ethics guidelines for trustworthy AI, *Retrieved February 22nd from* <a href="https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html">https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html</a>

<sup>&</sup>lt;sup>2</sup> European Digital Rights and Principles, retrieved on February 22nd 2023 from <a href="https://digital-strategy.ec.europa.eu/en/policies/digital-principles">https://digital-strategy.ec.europa.eu/en/policies/digital-principles</a>





- AR: Artificial Reality
- VR: Virtual Reality
- WP: Work Package
- DMP: Data Management Plan
- FAIR: Findable, Accessible, Interoperable, and Reusable
- GA: Grant Agreement
- CA: Consortium Agreement
- RRI: Responsible Research and Innovation
- STS: Science, Technology and Society

#### 3.4. Reference Documents

Sources used for developing the sociocultural contextualization policy of the e-DIPLOMA project:

- European Commission, Directorate-General for Communication, Directorate-General for Research and Innovation, Responsible research and innovation (RRI), science and technology: report, Publications Office, 2013, <a href="https://data.europa.eu/doi/10.2777/45726">https://data.europa.eu/doi/10.2777/45726</a>
- Responsible Research and Innovation Toolkit (<a href="https://rri-tools.eu/">https://rri-tools.eu/</a>)
- Ethical guidelines on the use of artificial intelligence and data in teaching and learning for educators (<a href="https://education.ec.europa.eu/news/ethical-guidelines-on-the-use-of-artificial-intelligence-and-data-in-teaching-and-learning-for-educators">https://education.ec.europa.eu/news/ethical-guidelines-on-the-use-of-artificial-intelligence-and-data-in-teaching-and-learning-for-educators</a>)
- European Code of Conduct for Research Integrity of ALLEA (All European Academies) <a href="http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics\_code-of-conduct\_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics\_code-of-conduct\_en.pdf</a>
- European Commission, Directorate-General for Research and Innovation, Europe 2020 flagship initiative Innovation Union: SEC(2010) 1161, communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Publications Office, 2011, <a href="https://data.europa.eu/doi/10.2777/47750">https://data.europa.eu/doi/10.2777/47750</a>
- European Declaration on Digital Rights and Principles for the Digital Decade, (<a href="https://digital-strategy.ec.europa.eu/en/library/european-declaration-digital-rights-and-principles">https://digital-strategy.ec.europa.eu/en/library/european-declaration-digital-rights-and-principles</a>)
- Von Schomberg,Rene (2012) 'Prospects for Technology Assessment in a framework of responsible research and innovation' in: Technikfolgen abschätzen lehren: Bildungspotenziale transdisziplinärer Methode, P.39-61, Wiesbaden: Springer VS <a href="https://link.springer.com/book/10.1007/978-3-531-93468-6">https://link.springer.com/book/10.1007/978-3-531-93468-6</a>
- European Commission (2016). Open innovation, open science, open to the world: a vision for Europe.
   Retrieved February 14, 2023, from Open innovation, open science, open to the world | Shaping Europe's digital future (europa.eu)

# 4. Responsible Research and Innovation (RRI)

The European Commission policy approach of Responsible Research and Innovation (RRI) is gaining momentum in European research planning and development as a strategy to align scientific and technological





progress with socially desirable and acceptable ends. RRI is integrated as a cross-cutting objective in the Horizon Europe funding programme and the European Commission (EC) highlights its potential for tackling grand societal challenges related to health, food security, clean energy, transport, climate, social inclusion and privacy rights<sup>3</sup>.

One of the most commonly cited definitions for RRI, is the one from philosopher and Science, Technology and Society (STS) expert Rene Von Schomberg who defines RRI as "[...] a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)"

Considering the ethical parameters with which RRI is concerned we can summarise the sociocultural considerations of research around the following principles:

- a) Research always facilitating 'doing good' and contributing to social justice;
- b) Research always being undertaken by people who have necessary skills and knowledge;
- c) Research outcomes always being honestly reported;
- d) Research always taking account of ethnic and cultural diversity for individuals and interest groups
- e) Research always seeking to minimise any adverse impact on the wellbeing and privacy of individuals;
- f) Research always taking account of the potential environmental impact of the products and services with which it is concerned;

To accomplish the above, the e-DIPLOMA project highly consider the RRI ingredients promoted by the European Commission consist of six keys and three Os<sup>4</sup>:

#### **SIX KEYS**

- Public engagement is about engaging a broad range of societal actors in the research and innovation process, including researchers, industry, policy-makers and civil society actors.
- **Open access** is about making research and innovation activities more transparent and easily accessible to the public, e.g. through open data and free access to publications.
- Science education is about increasing society's general science literacy, e.g. by boosting children's
  interest in science and technology, and by equipping civil society actors with the necessary skills to
  more actively take part in the research and innovation process.
- **Gender** is about promoting women's participation as researchers and integrating a gender dimension into research and innovation content.
- **Ethics** is about fostering research and innovation activities of high societal relevance, that comply to the highest ethical standards.

26, 2018, from https://ec.europa.eu/digital-single-market/en/news/open-innovation-open-science-open-world-visioneurope

<sup>&</sup>lt;sup>3</sup> Geoghegan-Quinn, M. (2012). Commissioner Geoghegan-Quinn Keynote speech at the "Science in Dialogue" Conference Odense, 23-25 April 2012. Retrieved February 13, 2023, from http://ec.europa.eu/archives/commission\_2010-

<sup>2014/</sup>geoghegan-quinn/headlines/speeches/2012/documents/20120423-dialogue-conference-speech\_en.pdf

<sup>4</sup> European Commission (2016). Open innovation, open science, open to the world: a vision for Europe. Retrieved April





 Governance is about the legal and policy frameworks in place to support responsible research and innovation.

#### **THREE Os**

- **Open innovation** is about making the innovation processes more open and attentive to the needs and expectations of different societal actors.
- **Open science** is about ensuring openness, cooperation and transparency in scientific knowledge making and encouraging citizen science.
- Open to the world is about allowing research and innovation to circulate more quickly and free across national boundaries and ensuring that European research contributes to global agendas.

Considering the elements above, e-DIPLOMA has taken steps to ensure the continuous monitoring of the above mentioned principles. Indicatively:

- the monitoring of ethics will be taking place throughout the project. An External Ethics Advisor has been appointed and an Ethics Committee has been established according to the CA. CSI, as the leader of WP7 is committed to upholding ethical standards throughout the project's implementation and providing and/or updating relevant guidelines before controversial activities if necessary, to ensure transparency and informed consent.
- in order to make the e-DIPLOMA data findable and openly accessible, the data will be stored in a
  trusted repository, Zenodo, with a Digital Object Identifier (DOI) to make them easily citable and
  trackable. The e-DIPLOMA data will be managed, and stewardship will be performed in line with the
  FAIR Guiding Principles to ensure its findability, accessibility, interoperability, and reusability. Access
  to the data requires approval from the Project Data Protection Officer and the e-DIPLOMA Ethics
  Committee.
- The data will be available during the project and for five years after, with metadata accessible after the data is no longer available.
- e-DIPLOMA will observe the EU's Gender Equality Strategy 2020-2025 to avoid differences and inequalities in project activities.
- the applicable laws and policy on a national and EU level are taken into consideration in every activity, report and deliverable made by the consortium through comprehensive procedures and clear and defined responsibilities.

# 5. Digital Rights and Principles for the Digital Decade

The recently published European Declaration on Digital Rights and Principles for the Digital Decade<sup>5</sup> sets out the Commission's commitment to a secure, safe and sustainable digital transformation. This Declaration is relevant to e-DIPLOMAas it sets out the ethical principles guiding the EU's approach to the digital transformation for business and other actors, ensuring the full compliance with fundamental rights such as

<sup>&</sup>lt;sup>5</sup> European Declaration on Digital Rights and Principles for the Digital Decade, Retrieved February 14 2023 from: <u>European Declaration on Digital Rights and Principles | Shaping Europe's digital future (europa.eu)</u>





data protection, the right to privacy, non-discrimination and gender equality, and with principles such as consumer protection, technological and net neutrality, trustworthiness and inclusiveness. It also calls for a strengthened protection of users' rights in the digital environment, as well as workers' rights and the right to disconnect.

The ethical principles set out in this declaration are grouped under the following six chapters:

Chapter I: Putting people at the centre of the digital transformation

<u>Elements of Relevance to e-DIPLOMA</u>: Putting people at the centre of e-DIPLOMAdevelopment activities and ensuring that the values of the EU and the rights of individuals as recognised by EU law are respected.

Chapter II: Solidarity and Inclusion

<u>Elements of Relevance to e-DIPLOMA</u>: making sure that the design, development, deployment and use of e-DIPLOMA respects fundamental rights, enables their exercise and promotes solidarity and inclusion by leaving nobody behind. The technology developed should benefit everyone, achieve gender balance, and include notably elderly people, people living in rural areas, persons with disabilities, or marginalised, vulnerable or disenfranchised people and those who act on their behalf. It should also promote cultural and linguistic diversity. In particular related to digital education the principle of solidarity and inclusion commits, amongst other things, to

- a) promote high-quality digital education and training, including with a view to bridging the digital gender divide:
- support efforts that allow all learners and teachers to acquire and share the necessary digital skills and competences, including media literacy, and critical thinking, to take an active part in the economy, society, and in democratic processes;
- c) give everyone the possibility to adjust to changes brought by the digitalisation of work through upskilling and re-skilling.
- Chapter III: Freedom of choice

<u>Elements of Relevance to e-DIPLOMA:</u> related to the use of AI, everyone should be empowered to benefit from the advantages of algorithmic and artificial intelligence systems including by making their own, informed choices in the digital environment, while being protected against risks and harm to one's health, safety and fundamental rights. Systems like e-DIPLOMA, leveraging AI to deliver innovation should comply with the following:

- Promoting human-centric, trustworthy and ethical artificial intelligence systems throughout their development, deployment and use, in line with EU values
- Ensuring the use of AI is transparent
- Ensuring that algorithmic systems are based on adequate datasets to avoid discrimination
- Ensuring that technologies such as artificial intelligence are not used to pre-empt people's choices, for example regarding health, education, employment, and their private life;





Furthermore, within the realm of Freedom of choice, the declaration commits to promoting interoperability, transparency, open technologies and standards as a way to further strengthen trust in technology as well as consumers' ability to make autonomous and informed choices.

Chapter IV: Participation in the digital public space

<u>Elements of relevance to e-DIPLOMA</u>: While this chapter relates mostly to the use of online media, the following commitments reflect e-DIPLOMA's application as well:

- Supporting the development and best use of digital technologies to stimulate people's engagement and democratic participation;
  - Taking proportionate measures to tackle all forms of illegal content, in full respect for fundamental rights, including the right to freedom of expression and information, and without establishing any general monitoring obligations or censorship
- Chapter V: Safety, security and empowerment

<u>Elements of relevance to e-DIPLOMA</u>: the principle underpinning this chapter, is that everyone should have access to digital technologies, products and services that are by design safe, secure, and privacy-protective, resulting in a high level of confidentiality, integrity, availability and authenticity of the information processed. Commitments related to e-DIPLOMA include:

- Protecting against cybersecurity risks and cybercrime including data breaches and identity theft or manipulation
- Ensuring that everyone has effective control of their personal and non-personal data in line with EU data protection rules and relevant EU law
- Prohibiting unlawful identification as well as unlawful retention of activity records

Also related to the development of technologies for minors:

- Promoting positive experiences for children and young people in an age-appropriate and safe digital environment
- Involving children and young people in the development of digital policies that concern them.
- Chapter VI: Sustainability

Elements of relevance to e-DIPLOMA: This last chapter sets out the EC's commitments around its digital agenda to avoid significant harm to the environment and to promote a circular economy, digital products and services that are designed, produced, used, repaired, recycled and disposed of in a way that mitigates their negative impact on the environment and on society. Furthermore, it recommends that everyone should have access to accurate, easy-to-understand information on the environmental impact and energy consumption of digital products and services, their reparability and lifetime, allowing them to make responsible choices. As such, it supports:

 The development and use of sustainable digital technologies that have minimal negative environmental and social impact





• The development, deployment and active use of innovative digital technologies with a positive impact on the environment and climate, in order to accelerate the green transition

# ■ 6. Guiding Policy for e-DIPLOMA

Bringing together the principles of RRI and the Digital Rights and Principles for the Digital Decade, as well as additional considerations related to Ethical AI and good research conduct, the sociocultural contextualisation policy for e-DIPLOMA is set out as follows:

Sociocultural Dimension	Policy
Diversity, Inclusion and non- discrimination	<ul> <li>The research activities are performed by a diverse group of researchers in terms of gender, ethnicity and sexual orientation.</li> <li>Participants in research activities (e.g, surveys, pilots and workshops) are diverse in terms of gender, ethnicity and sexual orientation.</li> <li>All the AI technologies developed and leveraged by e-DIPLOMA are developed around the principles of trustworthy AI, taking into consideration principles that will ensure any AI-enabled decision support is not discriminatory or biased.</li> </ul>
Sustainability	<ul> <li>All project activities will be performed with the aim of reducing environmental impact. This will be achieved through the use of Green Al principles<sup>6</sup>, as well as abiding by the FAIR data principles.</li> </ul>
Ethics	<ul> <li>All research activities are performed on the basis of the project's Ethics Plan.</li> </ul>
Privacy	<ul> <li>GDPR and the FAIR data principles will ensure that every participant in the e-DIPLOMA activities will have effective control of their personal and non-personal data in line with EU data protection rules and relevant EU law and that unlawful identification as well as unlawful retention of activity records will not be a risk.</li> </ul>
Health, safety and fundamental rights	The technologies developed through e-DIPLOMA will be developed to control against any risk that may be posed to individuals either through the use of AI (bias, discrimination), the use of AR/VR (health adverse effects) and any risks related to the use of personal data and freedom of choice. Furthermore, the e-DIPLOMA consortium will provide full transparency to all participants about the way decisions are being

<sup>&</sup>lt;sup>6</sup> Yigitcanlar, T., Mehmood, R., & Corchado, J. M. (2021). Green artificial intelligence: Towards an efficient, sustainable and equitable technology for smart cities and futures. *Sustainability*, *13*(16), 8952. Retrieved February 22nd 2023 via <a href="https://www.mdpi.com/2071-1050/13/16/8952">https://www.mdpi.com/2071-1050/13/16/8952</a>





	made, the way data is being processed and regarding any inherent risks in their interaction with e-DIPLOMA so that all choices are informed, while being protected against risks and harm to one's health, safety and fundamental rights.
Equal opportunities	The technologies resulting from e-DIPLOMA will be inclusive, making sure no one is left behind. An overarching aim of the project which will be a guiding principle in all project activities is the promotion of high-quality digital education and training, including with a view to bridging the digital divide and ensuring everyone has the opportunity to adjust to changes brought by the digitalisation of work through up-skilling and re-skilling. Furthermore, through the use of open innovation, open science and open to the world, the e-DIPLOMA commits to allowing science and innovation to span quickly and free across national boundaries, providing opportunities for further research and progress across the EU and global boundaries.

### 7. Conclusion

The e-DIPLOMA consortium holds in high regard all the legal and ethical principles, protocols, laws, and requirements that apply to this project and commits to abiding by the policy herein which ensures that the activities of the project and resulting research and innovation products will be developed focusing on "doing the right thing" in the context of sociocultural considerations. Throughout the realisation of this project, the consortium commits to taking the above into consideration and following the principles set out, along those developed through the Ethic's Plan, and being up to date with any relevant changes in regulations and subsequently updating the present document if necessary.



