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UNIVERSITY OF PRETORIA
Strategic Programme Office

ETHICAL GOVERNANCE OF DIGITAL TECHNOLOGY

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1. PURPOSE

The University of Pretoria's Digital Transformation Strategy's (2023 – 2026) strategic intent is to fundamentally change how UP operates and delivers value to customers through the integration of technologies across all areas.

This guideline supports the Digital Transformation Strategy and contains a set of values and guiding principles on the responsible ethical governance of digital technology that will:

- Form the basis of making digital technologies work for the good of all university stakeholders and validate the content of all knowledge products developed by the university.
- Enable and ensure responsible, trustworthy, and sustainable innovation rather than hamper it.
- Be anchored in human rights and fundamental freedoms, and the rule of law, and informed by ethical reflection.
- Safeguard all stakeholders, in particular students, from possible harm emanating from digital technology in the UP domain.
- Action the social contract between the university and society.

2. SCOPE

This guideline applies to:

- all digital technology and transformation initiatives (programmes, projects, and interventions);
- all Professional Services Departments, Faculties, and research entities of the University; and
- all employees, students, researchers, service providers, contractors as well as other individuals who are involved in the design and development of new and current digital technology initiatives.

3. OBJECTIVES

- The guidelines are aimed at the establishment of a welcoming and enabling sustainable atmosphere for multi-disciplinary, trans-disciplinary and multi-stakeholder pluralistic discourse and reflection on potential ethical concerns related to digital transformation at UP.
- The guidelines promote equitable, safe, and responsible access to and engagement with, the technologies in question for all stakeholders throughout the lifecycle of such technologies (research, design, development, deployment, use, and end-of-use).

- The guidelines generate trust in the technologies in question and ensure protection of the University' reputation.

4. VALUES

These guidelines are founded upon the following values:

- **Strengthening the interconnectedness of all university stakeholders with each other**: Based on the philosophy of *ubuntu*, the guidelines highlight the value of the interconnectedness of all humans with each other in a shared humanity. The use of digital technologies should contribute to and strengthen this human bondedness.
- **Respect and promotion of human dignity**: This value celebrates the intrinsic value of every human being. The use of technology should respect this value and new technologies adopted into the university domain will sustain and promote this value.
- **Promotion of equity and social justice**: All knowledge producers in the university domain will have equal and fair (equitable) access to the technology they need. All stakeholders' data will be protected equally.
- **Maintaining epistemic justice**: Every knowledge producer is respected and recognised as a credible knower.

5. GUIDING PRINCIPLES

The ethical principles espoused in the guidelines serve as minimum principles to be embedded in the responsible governance of digital technologies. Appropriate risk management remains the responsibility of the applicable business owner and is a key component of responsible development and use of any digital technologies. Understanding and managing relevant risks associated with digital technologies will enhance trustworthiness and, in turn, cultivate public trust. Risks may arise, amongst others, from non-compliance of applicable data protection legislation, inadequate cyber and information security, vendor risks, and from the types of technology and the context in which this technology is developed or used.

5.1. Proportionality:

- Technology should only be used for the purpose it is intended.
- Decisions on the use of technology should always be risk-based in the sense of maintaining the principle of proportionality.
- This principle implies that the choice to use technology, and specifically digital technology as defined here, should never exceed what is necessary to achieve legitimate aims or objectives, should be appropriate to the context, and should not lead to harm in any form (UNESCO 2021).

5.2. The right to privacy and data protection:

- This is an inviolable right of every individual.
- Privacy and data protection considerations should be embedded into the business practices from the outset and should ensure the integrity of data and data protection.
- Digital technologies should be managed in a way that gives effect to individual rights in terms of applicable data protection legislation.
- Data processing in digital technology projects must comply with the University's Information Governance policies (Information Governance, Privacy Protection, Information Security Management and Records Management policies) and applicable data protection legislation.

5.3. Ecosystem- and human-centeredness

- Interaction with digital technology in any way (in research, design, development, deployment or use) must be human-centered and focus on technologies that are designed with sensitivity to their human impact, and that are intended to augment, rather than replace, human capabilities and intelligence, to enhance the quality of human lives.
- It should be noted that ecosystem-centeredness, which implies that the focus is on technologies that are designed to be sensitive to environmental impact, is the over-arching principle of which human-centeredness is a subset.

5.4. Transparency and explainability

- Transparency refers to making the processes of the system visible and explicable. Every human has the right to know if an AI system has taken a decision about any aspect of their lives.
- Transparency thus relates to understanding how machine-learning systems are designed, developed, deployed and used.
- Explainability relates to understanding the working of these systems and the outcomes they generate.
- Transparency and explainability contribute to a just and peaceful technological ecosystem but should always be appropriate to the context (e.g., there should be sensitivity for scenarios where demands for these principles bring tension to other considerations such as safety or privacy).

5.5. Robustness

- The digital technologies at issue should be safe, secure, and accurate.

5.6. Fairness and non-discrimination (Elimination of bias)

- Fairness relates to combating the potential amplification of stereotyping and identity prejudice (bias) that are real concerns relating to machine learning methods, as well as the material and allocation harm[1] that comes with being either a member of a data set with structural bias or being excluded from data sets on which models are trained.
- Care should be taken that AI systems are trained on data that has been curated such that structural bias in training data sets is minimised.as far as possible.

5.7. Responsibility and accountability

- Responsibility for digital technology processes should always rest with a human being.
- Accountability implies an ethical, moral or other expectation that guides the University's actions or conduct and allows them to explain the reasons for which decisions and actions were taken.

5.8. Multi-stakeholder governance

- All stakeholders should contribute to dialogues on the responsible governance of the research, design, development, deployment and use of digital technologies. Care should be taken to engage in intergenerational dialogue to ensure that technological needs of future cohorts of students and other knowledge producers at the university form part of planning, and of teaching and learning and research strategies.

5.9. Academic integrity

- There should adequate measures in place to address ethical risks related to academic integrity and legal risks, including infringement of copyright law and intellectual property law in the context of application of AI technologies, such as generative AI.

5.10. Awareness and literacy

- All stakeholders will be included in awareness and literacy campaigns promoting digital ethics awareness and promoting information and communication literacy.

[1] An AI system extends or withholds certain resources, opportunities, or information for certain individuals or groups.

5.11. Continuous evaluation and improvement

- UP should encourage regular assessments of digital technologies' performance, impact, ethical implications, and implement mechanisms for feedback and continuous improvement. These should include, amongst others, ethical impact assessments – to address any identified ethical concerns.

6. ASSOCIATED DOCUMENTS

Digital Transformation Strategy (2023 – 2026)

Digital Transformation Strategic Roadmap (2023 – 2026)

7. DOCUMENT METADATA

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