European Professional Ethics Framework for the ICT Profession

Introduction to draft framework ‘philosophy’ and structure
Connections to competence and workplace examples
Invitation to workshop and further engagement
Good apple pies are a considerable part of our domestic happiness.” -Jane Austen in a letter to her sister Cassandra, 17 October 1815.

No one will/dare disagree with its value
Everyone is in denial about how to implement and who will do work
GOAL and how to reach the goal

The aim of the TS **Technical Report** is to specify

**WHAT:** Professional ethics is
- Ethical use of expert knowledge
- Value based use of expert knowledge
- Role of trust

**HOW:** To implement it in practice
- Present and analyse relevant **terms and definitions** (Section 3)
- Define the **structure & the language of Professional Ethics Framework** (Section 4)
- Position the conceptual use of **ethical Theories, Models, Frameworks** with regard to ICT **fields**, indicate challenges to implementation (Section 5)
Main Sources for the Working Draft

- Human rights
- Rule of law
- Equality
- Democracy
- Freedom
- Human dignity
- EU Values
- European Values
- Berlin Declaration
- IFIP CODE
- ICT Ethical Knowledge Items (EKI) Component

Berlin Declaration: How it applies to ICT Professional Ethics
Duties/obligations

ITPE & CEN/TC428, 2nd Workshop, 20th May
## Sample ICT Ethical Knowledge Items

<table>
<thead>
<tr>
<th>Principles Component 1</th>
<th>Berlin Declaration Description</th>
<th>ICT Ethical Knowledge Items (EKI)Component 2</th>
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</thead>
<tbody>
<tr>
<td>P1 Validity and respect of fundamental rights and democratic values</td>
<td>All human beings are equally entitled to be treated with respect and fairness - both in the analogue and in the digital sphere. The existing rights, values and the corresponding legal framework of the European Union apply regardless of our means of communication and irrespective of the use of analogue, digital, hybrid or integrated formats. Our common core foundations such as the rule of law, our concern for human dignity, right to autonomy, and shared ethical values must prevail in the digital world. European democracy must be protected from both disinformation and outright attacks on elections with due respect for the freedom of expression. All citizens should be able to verify the authenticity of online information, websites and applications. Everyone, especially children and young...</td>
<td>The ICT professional has an ethical obligation to ensure, as far as possible, that</td>
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<td>- P1a: the reliability and veracity of information and data in the systems they design and build</td>
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<td>- P1b: be aware of methods of potential malicious misuse of ICT technology</td>
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<td>- P1c: protections from malicious cyber activities are in place with particular concern for vulnerable groups</td>
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<td>- P1d: be aware of and respect the connection between the communication of information and democracy</td>
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<td>- P1e: be aware of and respect the corresponding rights of freedom of expression and protection from hate speech</td>
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<td>- P1f: be aware of the privacy and confidentiality requirements of information and data in the systems they design and build</td>
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Core components and Knowledge translation

- ICT Professional Ethical responsibilities in liaison with
  - e-CF BoK
  - Roles Profiles
  - Other ethics codes
  - Tools/Methods

- Critical parameters to apply the framework into the Organization environment
  - Context
  - Culture
  - Leadership

- Five organisational steps to be taken in order to incorporate the ICT Ethics framework within the organizational context.

ICT Ethics framework within an organisation – liaison with e-CF areas

- Plan
  - E-Competences: Ethical issues
    - Include ethics in the organization strategy and priorities
      - Annual Plan
  - Build
  - E-Competences: Ethical issues
    - Define an organisational procedure for ethics management
      - Ethics guidelines List of tools
  - Run
  - E-Competences: Ethical issues
    - Develop the tools and procedures
      - Code of Ethics
  - Enable
  - E-Competences: Ethical issues
    - Train the professionals
      - Ethics fundamentals
  - Manage
  - E-Competences: Ethical issues
    - Include ethics discussions in periodic meetings and reports
      - Monthly meetings
    - Annual report

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Knowledge translation – case study

Case Study 1: Designing and developing a trustworthy AI system

- Prominent key components
  - Reliability and veracity
    - Design upon the intentional understanding of AI
    - Indicate consistency to the operational goals of the design

Case Study 2: Human resource practices in an ICT profession, Operational level

- Prominent key components
  - Digital sovereignty and interoperability
    - Indicate criticality and responsibility in the engagement with digital technologies
    - Strengthen trust according to interoperable services

Case Study 3: Measure user/customer acceptance, satisfaction: designing and managing user requirements.

- Prominent key components
  - Reliability and Veracity
    - Initiate values, mechanisms and practices that enforce veracity such as accountability
    - Apply reviews to enumerate social/corporate/organizational benefits and potential side effects
<table>
<thead>
<tr>
<th>Dimension 2</th>
<th>Dimension 3</th>
<th>Dimension 4</th>
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<tbody>
<tr>
<td>e-competence</td>
<td>e-Competence proficiency levels</td>
<td>Knowledge examples</td>
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### Dimension 2: e-competence

- **L1**
- **L2**
- **L3** - Exploits specialist knowledge to define relevant ICT technology
- **L4** - Acts with wide ranging accountability to define the strategy to implement ICT technology compliant with business need
- **L5** - Provides strategic leadership for implementing the digital enterprise strategy

### Dimension 3: e-Competence proficiency levels

- **K1** architecture frameworks, methodologies and systems design tools
- **K2** systems architecture requirements:
- **K3** costs, benefits and risks of a system architecture
- **K4** the company’s enterprise architecture and its interconnection to networks
- **K5** new emerging technologies (e.g., distributed systems, cloud computing)
- **K6** principles and techniques for access management
- **K7** principles of systems and data security

### Demonstrated abilities

- **K1**
- **K2**
- **K3**
- **K4**
- **K5**
- **K6**
- **K7**

### Case Study 1: Designing and developing a trustworthy AI system

- **P1. Validity and Respect**
  - P1.a Reliability and Veracity
    - AI understanding
  - P1.b Consistency and coherence
- **P2. Participation and Inclusion**
- **P3. Empowerment and digital literacy**
- **P4. Trust and Security in digital interactions**
- **P4c. Transparency**
- **P5. Digital sovereignty**
- **P5a. Open Digital Solutions**
- **P6. Human-centered systems and innovative technologies**
  - **P6e. Human centered innovation**
    - Foster AI excellence for societal benefits

### e-CF Levels mapping to Ethical Competences Considerations/Levels

<table>
<thead>
<tr>
<th>L1</th>
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<th>L3</th>
<th>L4</th>
<th>L5</th>
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<td>- Familiar to the core principles of human-centric AI (human agency)</td>
<td>- Competent to develop, deploy and use AI software and hardware systems in adherence to the key AI ethical requirements</td>
<td>- Reflect methods/practices how a human-conduct-based liability regime could be transformed to a more machine-based liability regime.</td>
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<td>- Able to interact with AI systems to a sufficient degree</td>
<td>- Apply design principles in algorithms that are not biased (e.g. use of an inadequate data set)</td>
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Register for workshop https://www.ict-ethics.eu/
To provide feedback and discuss:

- Ethical Knowledge Item Development
- Links to e-CF (all dimensions) and Role Profiles
- Developing organisational guidelines and tools on ethics procedures
- Developing codes of ethics