Professional Ethics in Computing - Comprehensive Reviewer

1. Kultgen's Wheel of Attributes of Profession

Kultgen's Wheel is a conceptual framework created by sociologist David Kultgen to categorize and understand different elements that shape various professions. It maps out characteristics, traits, and values associated with specific occupations or professional roles.

Framework Components

- **Technical Skills**: Specialized knowledge and competencies required
- **Ethics**: Moral principles guiding professional behavior
- **Social Responsibility**: How the profession serves society and contributes to common good
- **Autonomy**: Degree of independence in professional decision-making
- **Income**: Financial rewards tied to the profession
- **Work-Life Balance**: The profession's demands on personal life and well-being

Value of Kultgen's Wheel

- Helps identify challenges when different attributes conflict
- Assists in planning career decisions
- Aids in understanding professional identity

2. Professional Ethics & Values

What is a Profession?

- Computing professionals include hardware designers, software engineers, database administrators, system analysts, and computer scientists
- Professionals typically have clients (not customers)
- Professionals should meet clients' needs consistent with client and public welfare, rather than just satisfying desires

General Principles of Ethics

1. **Contribute to society and human well-being**, acknowledging all people as stakeholders in computing
2. **Avoid harm**
3. **Be honest and trustworthy**
4. **Be fair and take action not to discriminate**

5. **Respect** the work required to produce new ideas, inventions, and creative works
6. **Respect privacy**
7. **Honor confidentiality**

Importance of Professional Values and Ethics

- **Personal Level**: Guide ethical decisions and behavior, positively impacting personal growth and community quality of life
- **Business Level**: Provide positive organizational image, establish common understanding of acceptable practice
- **Public Level**: Build confidence in professional trustworthiness, provide transparency to clients and society

Professional Responsibilities in Computing

1. **Responsibilities to Clients and Users**: Report all relevant findings honestly and accurately
2. **Responsibilities to Employers**: Work loyally on behalf of the employer
3. **Responsibilities to Other Professionals**: Interact with colleagues with respect (collegiality)
4. **Responsibilities to the Public**: Enhance public understanding of computing
5. **Responsibilities to Self**: Strive to enhance personal skills

3. Social Issues and Professional Ethics

Implications of Computing in the World

Positive Impact

- Helped advancement into the future
- Increased efficiency and productivity
- Essential information management
- Enhanced communication and connectivity

Negative Impact

- Elimination of low-skilled workers due to automation
- Increased distractions
- Stress due to implementation of new technology

Impact on Community and Individual

Positive

- Task automation
- Connectivity

- Transforming work
- Enhanced learning

Negative

- Health issues
- Security risks
- Job displacement
- Changes in social and cultural interaction

4. Critical Reasoning and Moral Theory

Ethics vs. Morality

Ethics	Morality
Philosophical discipline guiding behavior and action	Principles, beliefs, and habits to judge something
Comes from culture, religion, and society	Comes from personal knowledge and experience
Less flexible	More flexible than ethics

Computer Ethics

Computer ethics is the set of commonly agreed principles governing computer use. Like general ethics, it consists of philosophical guidelines or moral standards aiming to influence behavior and prevent harm.

Consequences of Lack of Ethics

- Increase in cybercrimes
- Computer privacy issues
- Challenges with AI advancement
- Workplace computerization problems

Positive Impact of Computer Ethics

- Better access to information
- Improved communication
- Increased productivity
- Improved education and healthcare