Ethical Codes in Computing

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Ethical Issues in Computer Science

- Respect for Privacy
- Respect for Property
- Respect for Ownership
- Respect for Others and the Law

What an Ethical Code is

- A set of moral principles or values
- The principles of conduct governing an individual or group, ie professional ethics
- A system or philosophy of conduct and principles practiced by a person or group
- The discipline dealing with what is good and bad and with moral duty and obligation

The Need for Ethical Code

- Help make our relationships mutually pleasant
- They enhance the sense of community among members

The Usage of Ethical Codes

- to define accepted/acceptable behaviours

- to promote high standards of practice

- to provide a benchmark for members to use for self evaluation

- as a vehicle for occupational identity

Writing an Ethical Code

Writing Ethical codes should target at the followings purposes.

- To regulate behaviour and to inspire
- Should be tailored to the needs and values of your organization
- The principles or values listed in an ethics document should be listed in rough order of importance to the organization

Writing an Ethical Code II

When writing an Ethical code we should give an answer to the following questions

- Will your new ethics document include some sort of enforcement? If so, what kind?

- How will your new code be implemented?

- Who will be involved by the code? A small working group? Or all the people will be affected by the code?

Organizations And Ethical Codes

- Many organizations all over the world have created Ethical Codes

  Some of them are the Canadian Information Processing Society, Australian Computer Society, The British Computer Society,the A.I.C.A. the IEEE ,the ACM and many more …

The ACM Organization

- ACM (Association for Computing Machinery) is an organization consisted of voting members, associate members and student members.

- All members of the ACM are committed to ethical professional conduct according to a Code

- This Code shall be supplemented with some Guidelines which provides explanation to various issues contained in the Code

General Code Imperatives

- The members of ACM have the followings moral imperatives
    - Contribute to society and human well-being
    - Avoid harm to others
    - Be honest and trustworthy
    - Be fair and take action not to discriminate
    - Honor property rights including copyrights and patent
    - Give proper credit for intellectual property
    - Respect the privacy of others
    - Honor confidentiality

More Specific Professional Responsibilities I

- ACM computing professionals have also the following responsibilities
  - Strive to achieve the highest quality, effectiveness and dignity in both the process and products of professional work

  - Acquire and maintain professional competence

  - Know and respect existing laws pertaining to professional work

  - Accept and provide appropriate professional review

More Specific Professional Responsibilities II

- Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks

- Honor contracts, agreements, and assigned responsibilities

- Improve public understanding of computing and its consequences

- Access computing and communication resources only when authorized to do so

Organizational Leadership Imperatives I

- ACM leadership members have the followings imperatives

  - Articulate social responsibilities of members of an organizational unit and encourage full acceptance of those responsibilities

  - Manage personnel and resources to design and build information systems that enhance the quality of working life

  - Acknowledge and support proper and authorized uses of an organization's computing and communication resources

Organizational Leadership Imperatives II

- Ensure that users and those who will be affected by a system have their needs clearly articulated during the assessment and design of requirements; later the system must be validated to meet requirements

- Articulate and support policies that protect the dignity of users and others affected by a computing system

- Create opportunities for members of the organization to learn the principles and limitations of computer systems

Complience with the Code

- The members finally ought to

  - Uphold and promote the principles of this Code

  - Treat violations of this code as inconsistent with membership in the ACM

Evaluation of the ACM code

- Which purpose the code serves?

- Does it have force?

- Is it useful?

The IEEE Organization

- IEEE is the Institute of Electrical and Electronics Engineers

- The IEEE, a non-profit organization, is the world's leading professional association for the advancement of technology

- It is consisted by more than 365,000 members, including 68,000 students, in over 150 countries

The IEEE Code of Ethics history

- 1912 - First Code Adopted by AIEE, after 6 years of effort
- 1950 - First revision which incorporated the ECPD Canons

- (BART Case Amicus Curiae did not know of this in 1975) 1974 - Revised after IEEE added Professional Activities to its Constitution
- 1987 - Revised again
- 1990 - Current version comprises 10 principles

IEEE Code of Ethics I

- The IEEE members are committed to the following ethical rules
  - Accept responsibility in making engineering decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment
  - Avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist
  - Be honest and realistic in stating claims or estimates based on available data

IEEE Code of Ethics II

- Reject bribery in all its forms
- Improve the understanding of technology, its appropriate application, and potential consequences
- Maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations

IEEE Code of Ethics III

- Seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others
- Treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin
- Avoid injuring others, their property, reputation, or employment by false or malicious action
- Assist colleagues and co-workers in their professional development and to support them in following this code of ethics

IEEE members in Leadership roles

- Have a higher duty to uphold the IEEE Code of Ethics
- Bringing cases of misconduct by others to appropriate authorities
- Ensuring that correct procedures are always followed

IEEE Ethics & Member Conduct Committee

- Established in 1978
- Dual roles of

  o Initiating disciplinary proceedings against IEEE members who behave

  improperly

  o Investigating and recommending support for IEEE members who have been punished because of their efforts to adhere to the Ethics Code

Evaluation of IEEE Ethics Code

- It is general, it does not address with specific situation

  To solve this problem, the IEEE in collaboration with several other professional societies has developed a set of Employment Guidelines

Is an Ethical Code Only Enough

Only having a code of conduct is not enough

- It can only be effective and practically useful with committed dissemination implementation monitoring and embedding at all levels so that behaviour is influenced
- A code can never cover all eventualities, so it is vital that staff understand the corporate values, why the code exists and how to apply it to everyday situations
- People need to have a copy of the code and be trained to it

Concluding

- Ethical Codes in Computing could educate engineers and scientists to use their education, training and experience in a manner that comports with the public health and safety.
- They influence and increase the competence of individuals
- They also increase the prestige of the profession
- But Ethical Codes need to be less general and more practical in order to bring results

End Of Presentation

Thank You For Your Attention