MORALITY AND LAW

Definition

- **Descriptive**: A set of rules or codes of conduct for right conduct or behavior
- **Normative**: ideal code of conduct that would be observed by all rationals
- Ethical means of conduct

Why do we need to study it?

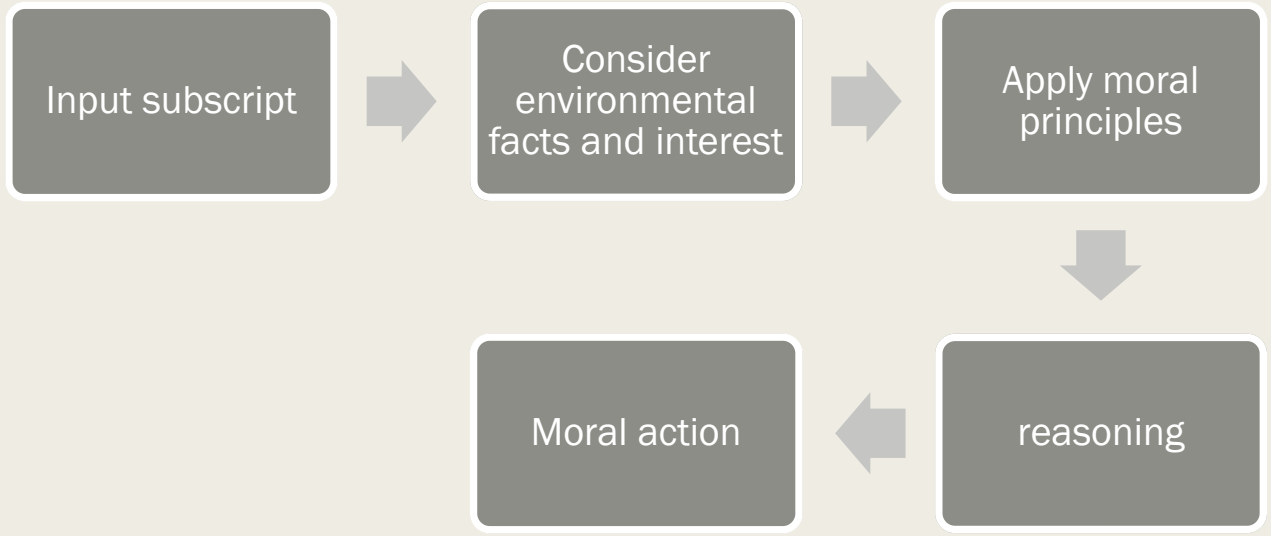
- To **regulate** and **modify** our **behavior**
- To **judge** people on what is right and what is wrong

Outcome: modified person with desired values

passion, desire to justice, love to others , …etc

Morality and conscience

- Morality is general, territory and culture dependent
- Conscience is an individual ability to judge/ is a moral action with the following algorithm



Terms

- **Subscript**: fundamental concept we believe in. our moral disctionalry
- **Reasoning**: Ability to
  - *Perceive moral principles*
  - *Rank moral principles*
  - *Justify moral choice*
  - *Determine impacts and consequences of moral action*
- **Moral codes**: subscripts, norms, rules within a group
  - *Islamic : no one of you is a believer until he desires for his brother that which he desire for himself*

- Quranic and hadeeth quotes➔ Islamic moral codes

﴿ إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ ((إنما بُعِثْتُ؛ لأُتَمِّمَ مَكارِمَ الأخلاق))

Law

- Rule of conduct recognized by a group or decreed by a formal community institution.
- An instrument to artistically exercise power
- Benefits:
  - *Conform to the code of conduct*
  - *Physical law: organizing non-free beings to uniform actions*
  - *Moral law: free rational beings*
  - *Natural law: unwritten universal law existing from human natural preferances.*
  - *Conventional law: created by and for humans. It can be declarative or determinative*

Why do we need laws?

- The ignorant –wise control theory
- Community teamwork and leaderships
- Harmonizing society
- Regularize penalty for the safety of public

Penal Code

- Retributive to the victim
- Corrective to the offender
- Deterrent- prevent similar actions by the offender

Morality and Law

- Conventional laws of a society are determined by the moral beliefs of the society (if they meet certain standards).
- Differences
  - *Process of making codes and laws*
  - *Enforcement*
  - *Nature of punishments*
  - *Conflict resolution*
  - *judgment*

Issue for discussion

- Give cases where laws and moral codes serve in protecting the community

Etiquette and manners

- Etiquette: A code of behavior or a set of norms of correct conduct expected by society,group, class of people.
- Manners: unforced cultural standards approved or disapproved by society.

Questions

1. What is moral relativism
2. Morality is time sensitive. Discuss
3. From an Islamic p.o.v., discuss how morality, guilt and laws shape a homogenous and safe society. Explain how this influences the nation development.
4. Discuss the effect of globalization on morality.
5. Discuss the morality of publishing negative opinions against local government.
6. Discuss the morality and laws of tweeting in KSA

Readings

- Chapter II of the book
- Google search, understand and be ready for a quiz next lecture:
  - *Objective morality*
  - *Bioethics*
  - *Philosophy of morality*
  - *Business ethics*
  - *Social media code of ethics*
  - *Saudi laws and cyberspace*

15 minutes 5 points quiz

- Chapters 1 and 2 + google search..
- 10 multiple-choice questions.

ETHICS

Ch3

Objectives

- Analyze arguments to identify premises and draw conclusions
- Illustrate the use of ethical argument
- Detect fallacies
- Identify stakeholders and obligations to them
- Evaluate ACM professional code of ethics

Ethical analysis

- Justify reasons by explaining whether or not objectives are achievable and discuss pros and cons

Definition of ethics

- From Greek eche’
- Study of right and wrong in human conduct (Austin Fagothey)
- A set of theories of value , birture or of right valuable actions (Robert Solomon)
- Many ethical theories.

Benefits of studying ethics

- Distinguish between right and wrong, good and bad and make reasoning for human actions

Tools for ethical analysis

- Deductive and inductive argumental analysis
- Ethical theories

Ethical theories

1. Consequentalism : Judgment depends on the result of action
   - egoism➔ Me first (self satisfaction and happiness)
   - utilitarianism➔ goup interest and haappyness
   - Altruism➔ action is right if the consequences are favorable to others
2. Deontology : will of action
   - Killing of an armed intruder
   - Assisting an injured
   - Hacking a computer of a suspect
3. Human Nature: explore and develop capabilities, benchmark for future action
4. Hedonism: maximize pleasure and minimize pain
5. Emotivism : Ethhical actions can not be true or false. They are just feelings.
   1. *Owning a gun*
   2. *Ownling hacking tools*
6. Relativism: to society, culture, or individual. Moral norms are relative and may change in time.

Ethical reasoning

- Building ethical layers
  - *Shall I own a gun?*
    - Understand the issue and ask why
      - *Existence of armed people who shoot for no reason*
        - Level the field
          - *Own a gun to continue happy life*
      - *Bad people own guns*
        - They may think of getting me before I get them
- Discussion:
  - *simple actions*
    - Killing, stealing, etc.
  - *Complex actions*
    - hacking, mobile scanning, subliminal human brain alteration

- ➔ A need for more adequate theory➔ Functional theory

Functional theory of ethics

- F(action a in A, ethical theory b in B) = value c in C
  - *= 1 if action is right or good*
  - *=0 if action is wrong or bad*
  - *Introduce weights.*

- We need to expand the sets A and B

Ethical reasoning and decision making

- Reasoning: a human cognitive process aof looking for ways to generate or affirm a proposition
- Cognitive processes:
  - *Mental functions or activities grouped as of*
    - Experience
    - Interpretation
    - Forecast/foresee
    - Ordering
    - Analyzing
    - Making connections
- Logic: a tool to distinguish between right and wrong.

Ethical decision making

- Framework
- We investigate a decision which may result in moral conflicts
- Recognize conflict via
  - *Comprenension*
  - *Appreciation*
  - *Evaluation*
- Identify involved parties
- Search for and analyze alternatives
- Demonstrate practival knowledge
- Understand the method and affected sides
- Understand impact

Making and evaluating ethical arguments

- Statement of the problem
- Solution is not algorithmic since there are no rules
- Solution methods as of software engineering process lifecycle
- Outcome: ethically justifiable solution or a deeper understanding
  - *Define a problem, develop specifications and facts, build reasoning layers, revise description, study alternatives, analyze conflicts and revise actions ➔ give weights.*

2018 ACM CODE OF ETHICS AND PROFESSIONAL CONDUCT

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Adopted by ACM Council 6/22/18

https://ethics.acm.org/

Attention

The book contains the 1992 version.

Why we need it?

- We change the world with our professional actions:
  - *Social media is our product*
  - *Embedded systems*
  - *Medical biochips.*
  - *Future of robots (Automata movie)*
- We are required to consider the wider impact of our work
- Conscience of the profession for the public good.
- Inspiring guide to students, instructors, practitioners, leaders and users.
- Basis remedies for violations and ethical decision-making

Goal

- The public good
- Accountability and
- Trasparency

structure

- 1. GENERAL ETHICAL PRINCIPLES. (7)
- 2. PROFESSIONAL RESPONSIBILITIES (9)
- 3. PROFESSIONAL LEADERSHIP PRINCIPLES (7).
- 4. COMPLIANCE WITH THE CODE.
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1. General ethical principles

A computing professional should…

1.1 **Contribute to society and to human well-being**, acknowledging that all people are stakeholders in computing.

- Use skills for the benefits of individuals and collectively
  - Volunteering, diversity, environmental sustainability, etc.
- minimize negative consequences of computing
  health, safety, personal security, and privacy.

1.2 **Avoid harm**

1.3 be honest and trustworthy

1.4 **Be fair and act without discrimination**

1.5 Respect the work required to produce new ideas, inventions, creative works, and computing artifacts.

respect copyrights, patents, trade secrets, license agreements, and other methods of protecting authors' works.

1.6 **Respect Privacy**

1.7 Honor Confidentiality

2. PROFESSIONAL RESPONSIBILITIES

1. **Strive** to achieve **high quality** in both the processes and products of professional work.
   - *Insist and support high-quality work*
   - *Respect dignity of employee, employers, users, clients and others.*
   - *Respect rights for transparent communication among project teams*
   - *Resist ignoring about negative consequencies.*
2. **Maintain high standards** of professional competence, conduct, and ethical practice.
   - *Technical knowledge*
   - *Communication skills*
   - *Reflective analysis*
   - *Recognizing and navigating ethical challenges*
3. **Know and respect** local and international **rules/laws/regulations** pertaining the professional work
   - *What to do with unethical rules?*
4. **Accept and provide** appropriate professional **review**
5. **Give** comprehensive and thorough **evaluations** of computer systems and their impacts, including analysis of possible risks.
6. **Perform** work only in areas of **competence**.
7. **Foster public awareness** and understanding of computing, related technologies, and their consequences.
8. **Access** computing and communication resources **only when authorized** or **when compelled by the public good**.
9. **Design** and **implement** systems that are **robustly** and **usably secure**

3. PROFESSIONAL LEADERSHIP PRINCIPLES

For both leaders and all professionals with different responsibility levels

1. Ensure that the **public good** is the central concern
2. **Articulate**, encourage acceptance of, and evaluate fulfillment of **social responsibilities** by members of the organization or group.
3. **Manage** personnel and resources to **enhance the quality of working life**
4. **Articulate, apply, and support policies** and processes that reflect the **principles of the Code**
5. **Create opportunities** for members of the organization or group to grow as professionals
6. Use care when **modifying or retiring systems** (change/removal/update of features)
7. Recognize and take special care of systems that become **integrated** into the **infrastructure** of society. (e.g. fair system access)

4. COMPLIANCE WITH THE CODE.

A computing professional should:

- 4.1 Uphold, promote, and respect the principles of the Code.
- 4.2 Treat violations of the Code as inconsistent with membership in the ACM.
  - Code of Ethics and Professional Conduct Enforcement

Using the Code

Via case studies

- Malware Disruption
  - Security vendors and government organizations collaborate to disrupt the operation of an ISP that hosts malware
- Medical Implant Risk Analysis
  - A medical implant device maker creates a smart phone application to monitor and control the device.
- Abusive Workplace Behavior
  - A manager fails to address abusive behavior by a technical team leader.
- Autonomous Active Response Weapons
  - A defense contractor that specializes in autonomous vehicles begins to integrate automated weaponry.
- Dark UX Patterns
  - A web developer realizes that their client's requests are intended to trick users into making accidental and expensive purchases.
- Malicious Inputs to Content Filters
  - An Internet content filtering service deploys machine learning techniques to automate the classification of blocked content.

CASE STUDIES

Basic ACM Case studies: to be discussed during classes

Study and summarize in your own words

Submit a simplified presentation (5 minutes)

- Malware Disruption: Security vendors and government organizations collaborate to disrupt the operation of an ISP that hosts malware.
- Medical Implant Risk Analysis: A medical implant device maker creates a smart phone application to monitor and control the device.
- Abusive Workplace Behavior: A manager fails to address abusive behavior by a technical team leader.
- Autonomous Active Response Weapons: A defense contractor that specializes in autonomous vehicles begins to integrate automated weaponry.
- Dark UX Patterns: A web developer realizes that their client's requests are intended to trick users into making accidental and expensive purchases.
- Malicious Inputs to Content Filters: An Internet content filtering service deploys machine learning techniques to automate the classification of blocked content.

Comprehensive Case studies: Ethical case reporting

Choose one and start reporting ethical cases (5 marks, one week due).

- Should we, and how would we control ads on YouTube ? How to enable ethical reporting within apps?
- Privacy settings in windows 10
- Consumer privacy
- AI bias
- Unequal access to healthcare –technology barrier
- IoT data collection and use
- Computational demand and energy requirements : Impact on Environment
- Collection and selling Personal identifiable information ☐Real-world daily bias
- Cypersecurity
- Always-on culture
- Jobmarket
- And many others --Forbes, 21