

Aspetos Socio Profissionais da Informática (Informatics and Society)

A Short Introduction to Ethics

Departamento de Informática da
FCT/UNL

Lecture Outline

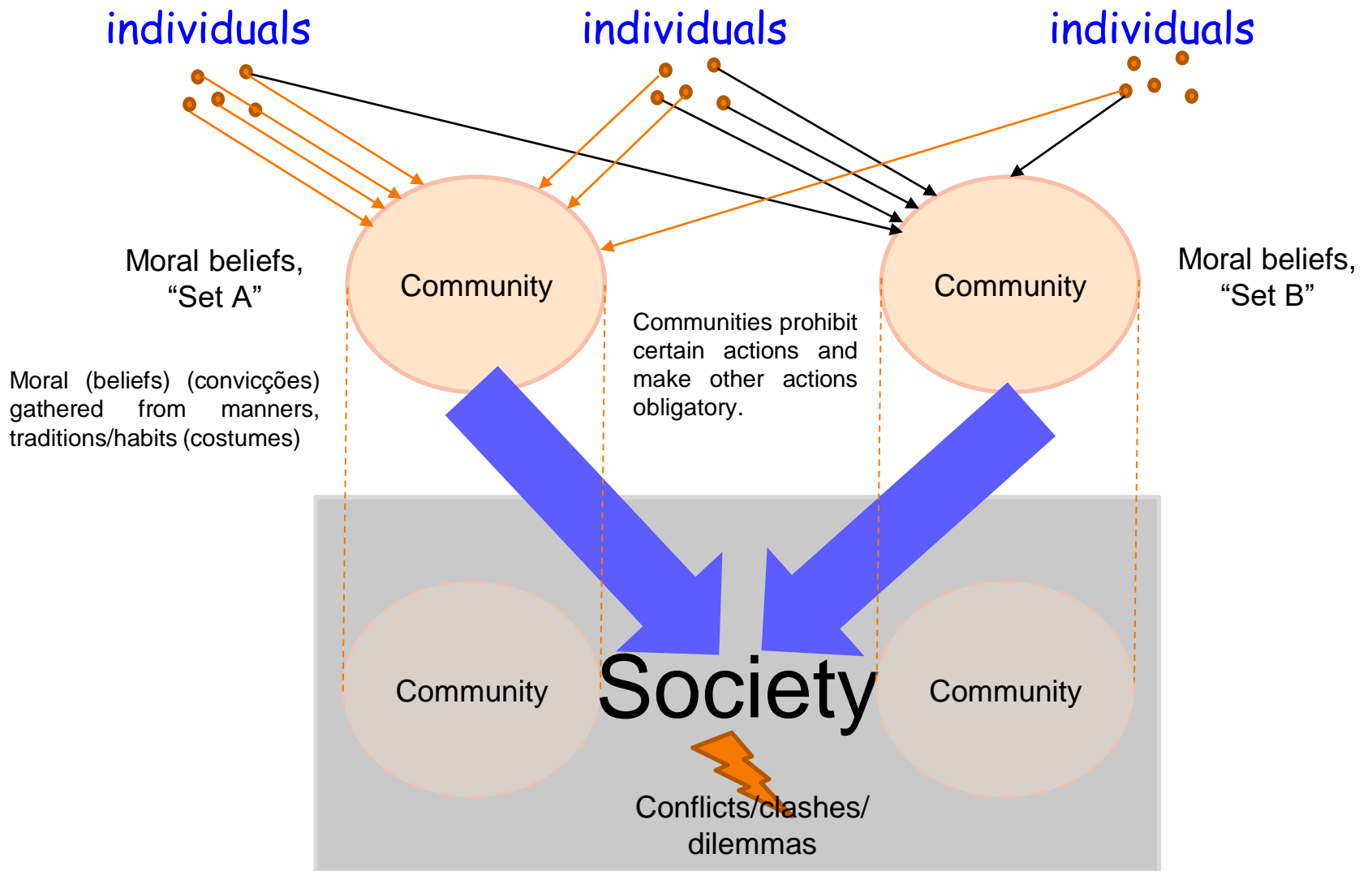
- Morality, Ethics and Law
- The importance of Ethics in the Information Age
- Ethical Theories and Analysis

These slides are partially based on slides of Prof. *Gordana Dodig-Crnkovic* - School of Innovation, Design and Engineering, Mälardalen University and on Chapter 2 of Michael J. Quinn, "Ethics for the Information Age"

The Same Fundamental Question

Is it good or bad?





A dilemma: Johnny B. Good is a conscientious objector, but has been drafted into the Army

Some Examples of Moral Conflicts



Arguments for Trade Related Aspects of Intellectual Property Rights (TRIPS) TRIPS

In the interest of the inventor, company and its home country - partial

Arguments in favour (of enforcing IPR):

- (1) A person who has invented or created something also has the right to control and own (and benefit from) his or her invention or creation.
- (2) IPR encourage and reward creative work and, as a consequence, companies have incentives to develop new technology which benefits economic development and welfare

Arguments for Trade Related Aspects of Intellectual Property Rights (TRIPS) TRIPS

Arguments against:

- Prices on AIDS/HIV drugs > 100\$/month
- Millions of patients die...
- Right to health?

Nowadays we are discussing patent infringement as a way to increase Covid19 vaccine production...

USA Department of Justice against Edward Snowden (the whistle blower)



Edward Joseph Snowden (born June 21, 1983) is an American fugitive, a former Central Intelligence Agency (CIA) employee, and former contractor for the United States government who copied and leaked highly classified information from the National Security Agency (NSA) in 2013. His disclosures revealed numerous global surveillance programs, many run by the NSA and the Five Eyes Intelligence Alliance with the cooperation of telecommunication companies and European governments.

(From Wikipedia, the free encyclopedia)

USA Department of Justice

DoJ Arguments (in favour of prosecution leading to guilty verdict):

- E. Snowden is accused of violating the Espionage Act of 1917 and theft of government property
- Installing backdoors in all networked devices is proportionate and necessary for the security of the State against all terrorists and foreign powers
- Storing and analyzing all possible data and meta data on every person, without any previous judge authorization is legal

Edward Snowden and Many Others

Their Arguments (in favour of innocence) :

- Storing and analysing private data, communications, conversations, smartphone and computer memory of people (in general) without legal authorization **based on evidences**, is a gigantic breach of privacy, civil rights, etc.
- Mandating companies to implement the mechanisms that allow it is **(STILL)** completely unlawful

I am Developing an **Autonomous System** based on Decision / Learning **Algorithms**

- If that system will/may hurt people's lives, can I fully ignore that fact?
- If that system will/may lead to a huge concentration of private economic power, can I fully ignore that fact?
- If that system will/may undermine democracy, can I fully ignore that fact?

May Be, More Than Ever, We Face Difficult Questions

- In real life, many things are not black and white
- Law may be absent or may need to be challenged
- In modern life, we face many new policy and law vacuums (a.k.a legal gaps, or legal lacunae)

Morality and Ethics

The terms ethics and morality are often used interchangeably - indeed, they (sometimes) mean the same thing, and in casual conversations there isn't a problem when switching between one and the other.

However, there is a distinction between them in philosophy!

Morality and Ethics

Morality and ethics have same roots, *mores* which means manner and customs (*usos e costumes*) from the Latin and *etos* which means custom and habits from the Greek.

Strictly speaking, morality is used to refer to what we would call moral conduct while **ethics** is used to refer to the **formal study** of moral conduct.

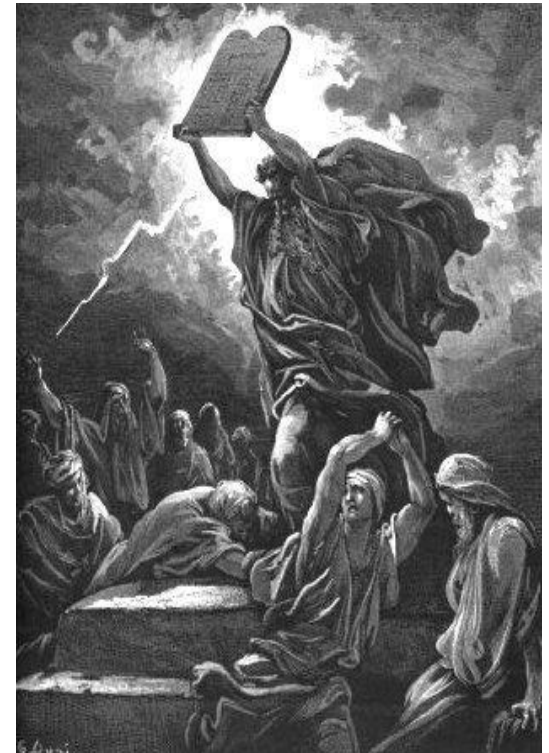
Ethics is also often called moral philosophy.

Morality and Ethics

- Morality: first-order set of beliefs and practices about how to live a good life
- Ethics: a second-order, conscious reflection on the adequacy of our moral beliefs
- Morality - PRAXIS - Often not enough
- Ethics - THEORY - The support of deeper reasoning

Morality

- Set of beliefs, procedures and norms that we acquire by culture from the group we belong to
- These norms, in general, do not need to be written since we acquire them by education and everyday life
- Depends heavily on your tribe, group, nation, region of the world and religion
- Many moral decisions are empirical, only based on experience



Is Empirical Morality Enough?

- World changes continually, and we have to interpret/construe it over and over again
- Technology is having a deep impact in our beliefs
- We come back to ideas again and again, finding new meaning in them
- Professional discussions of ethical issues in journals
 - Note: Ethical issues in professions -> Professional ethics (a.k.a. deontology)

Unworkable Ethical Theories

May fuel discussions/reasoning, and advance knowledge, but are not usually applicable to “real world” situations

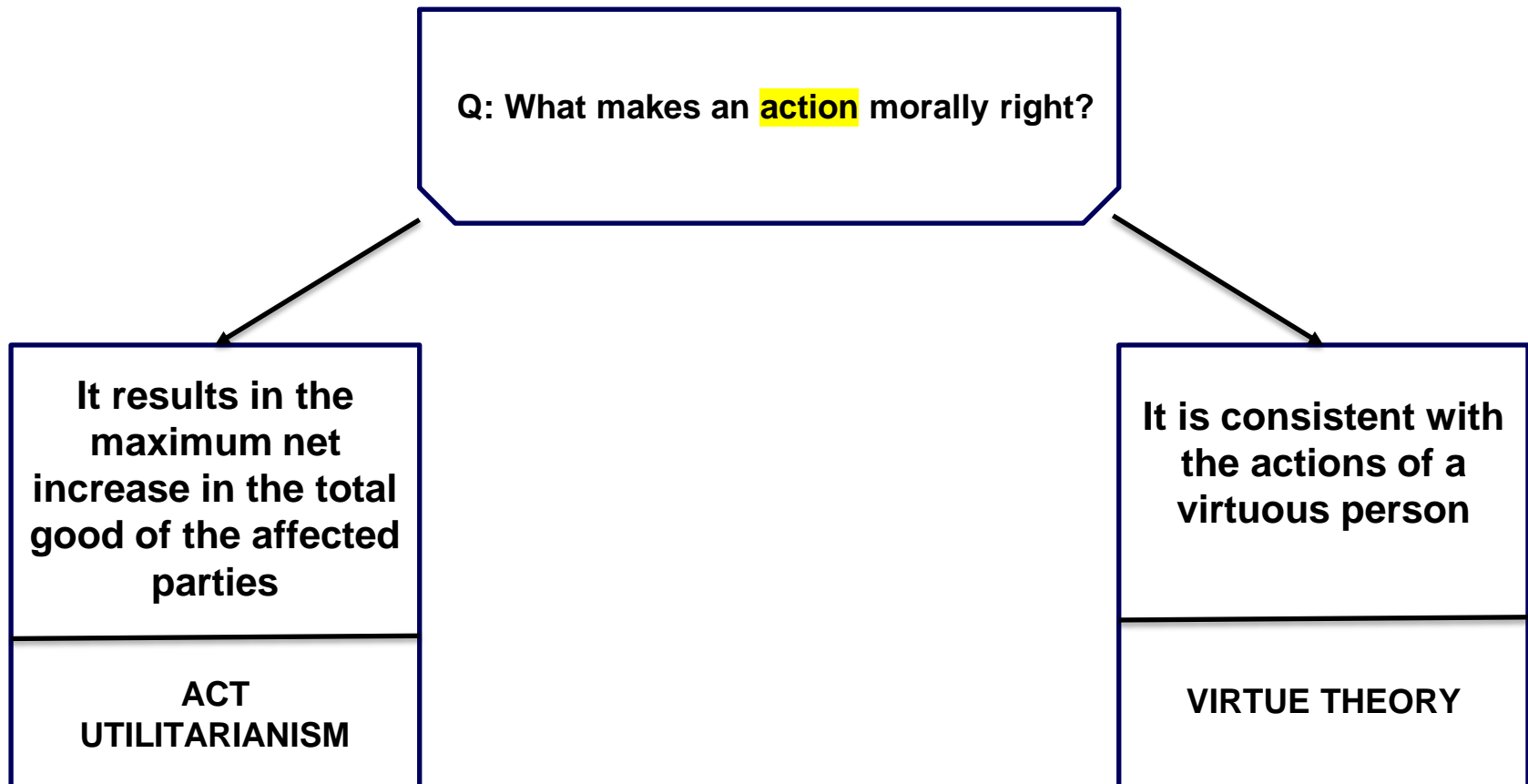
- Divine Command Theories (“My religion ...”)
- Subjectivism Relativism (“What’s right for you may not be right for me”)
- Cultural Relativism (“It is arrogant for one society to judge another”)
- Ethical Egoism (“Everyone maximizes their gain”)

Workable Ethical Theories

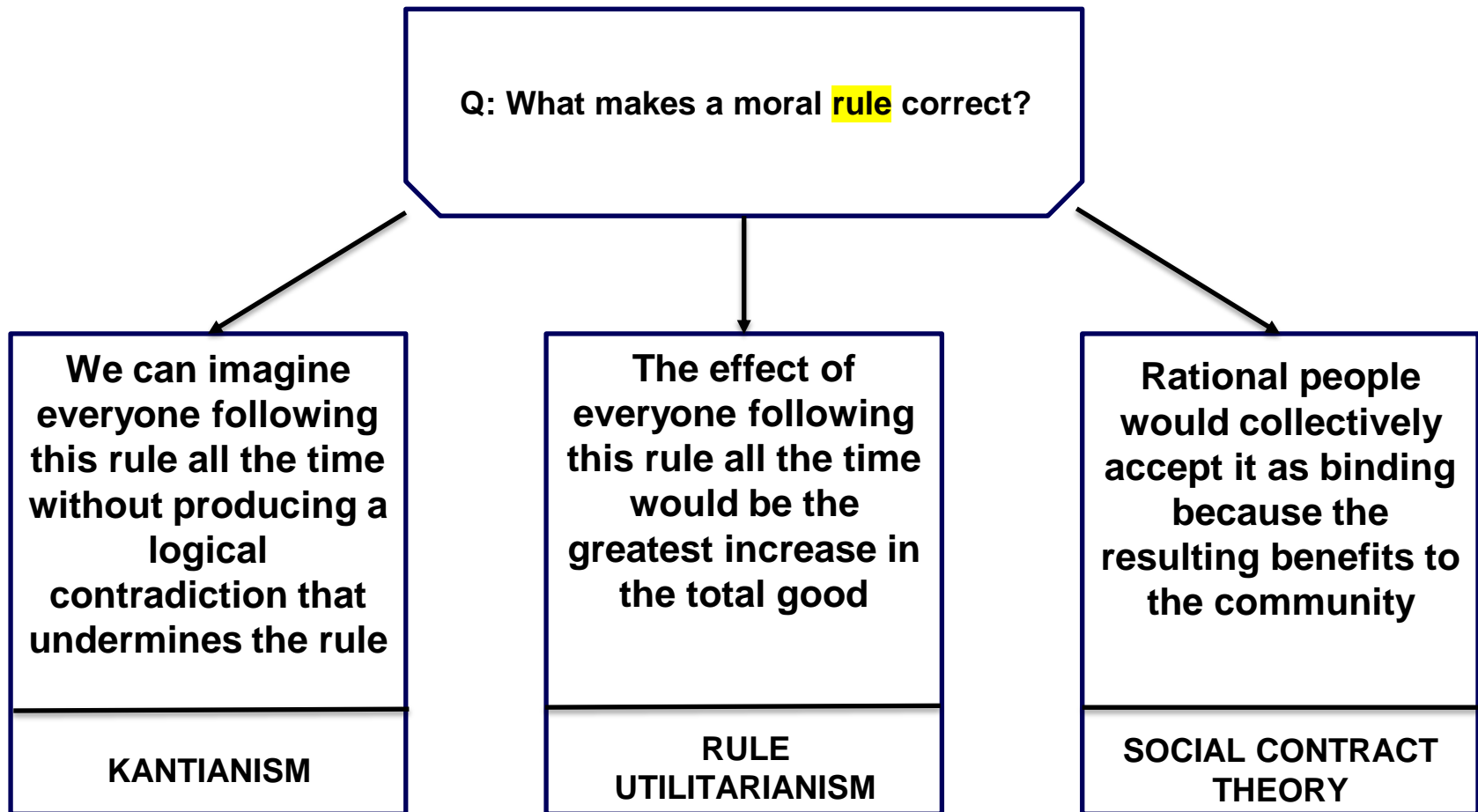
Something is good if:

- is an action that -
 - maximizes usefulness - Act Utilitarianism
 - is what a virtuous person would do - Virtue Theory
- it is consistent with a moral rule -
 - it is consistent with a rule that maximizes usefulness - Rule Utilitarianism
 - everybody chooses to do the same, it will not lead to a logical contradiction that would undermine this choice (Kantianism)
 - it is in accordance with the Social Contract - Social Contract Theory

Action Rule Workable Ethical Theories



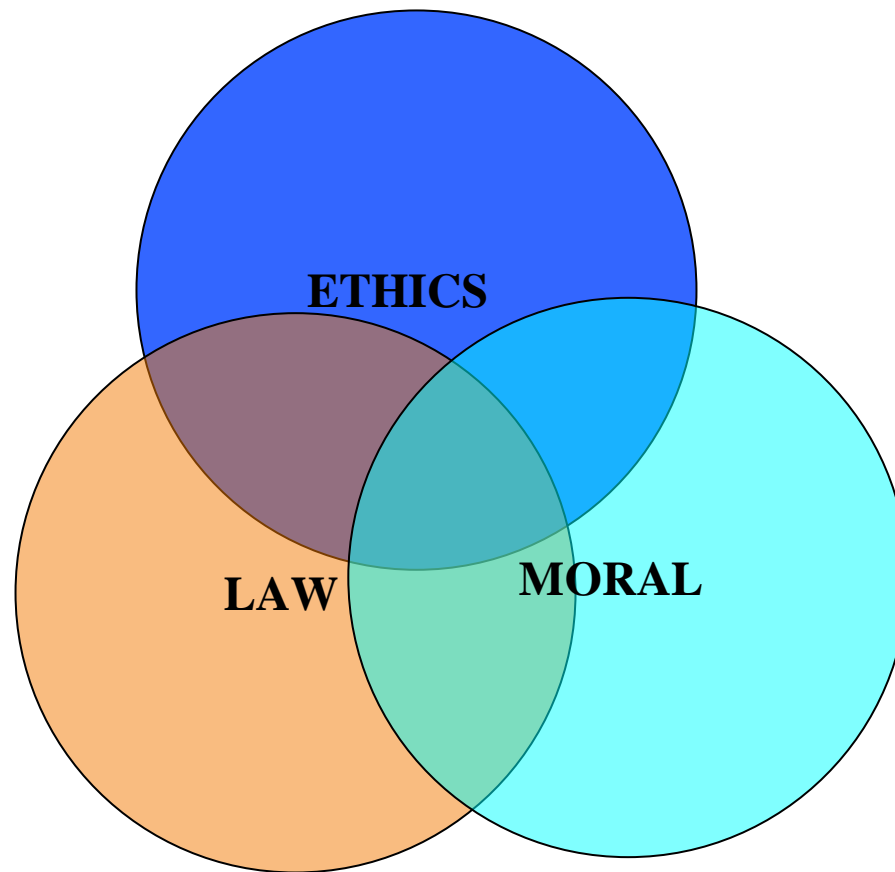
Moral Rule Workable Ethical Theories



The Law

- Amoral or unethical behaviours are not sanctioned in concrete terms only, sometimes, in social terms
- Society and State establish concrete **sanctions** for the so called unlawful actions
- **Regulations and codes of conduct** - less severe sanctions (fines, professional sanctions, ...)
- **Civil law** - sanctions are fines, penalties, payments (indenizações), since the offender is not dangerous for the society in general
- **Criminal law** - sanctions include prison, detention, confinement, imprisonment

Morality, Ethics and Law



**Why Ethics in Computing is
becoming more and more
important?**

A Brave New World



**“Dear Andy: How have you been?
Your mother and I are fine. We miss you.
Please sign off your computer and come
downstairs for something to eat. Love, Dad.”**

A Brave New World

© 1996 by Randy Glasbergen.
E-mail: randyg@norwich.net



**“Hello, Bob? It’s your father again.
I have another question about my new computer.
Can I tape a movie from cable TV then fax it from
my VCR to my CD-ROM then E-mail it to my
brother’s *cellular phone so he can make a*
copy on his neighbor’s camcorder?”**

A Brave New World



A Brave New World



How to Extract Value
from Big Data

A Brave New World



What is Special About Computing?

- Computing and life support systems
- Computing and privacy and private data
- Computing and communications
- Computing and the new media
- Computing and the old media
- Computing and commerce, publicity (behavioural tracking)
- Computing and Learning
- Computing and Entertainment
- Computing and Commerce
- Computing and Jobs (*Gig-Economy*)
- Computing and Surveillance
- Cyber War

The Same Fundamental Question

Too often, new technology develops with little attention to its impact upon human values



Computing Ethics

Computing ethics is the analysis of the nature and social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such technology.

The Aims

- Understand the impact of computing technology upon human values
- Minimize the damage that such technology can do to human values, and
- Identify ways to use computer technology to advance human values
- Do so by separating right from wrong options using an analysis based on workable ethical theories

Conclusion

- There are many differences among morals, ethics and law
- Ethics concerns all aspects of modern collective life and has its roots in philosophy
- Current and future computing and communication systems challenge many moral beliefs and ethics