Basic values, Attitudes and Ethical analysis in IT development

_Bengt Sandblad, Iordanis Kavathatzopoulos_

http://www.it.uu.se/research/hei

The impact of IT

- When IT, computers, technology is introduced in a work environment this will influence and affect the individual, the group, the organisation in many different ways.
  - Work organisation
  - Work processes, roles, competencies
  - Quantity and quality
  - Efficiency and service
  - Work environment
  - Health and wellbeing
  - More (everything)

What “controls” this “impact”?

- Competencies, models, processes, techniques, tools, ….
- But also some more basic things, e.g.:
  - Basic values
  - Attitudes
  - Ethical competencies and skills
- What is this? Are they “given”? Can they be made understood, explicit, taught, trained….?
Work with IT

Life saving systems

Administration
Basic values and attitudes

• Who’s basic values?
  – Individual
  – Role
  – Group
  – Organisation

• Who’s attitudes towards who and what?
  – Managers
  – Projects leaders, developers, technicians, …
  – Designers, usability experts
  – Users, user representatives
  – Customers, patients etc

Example

• What is your basic values and attitudes concerning:
  – Work and workers (users)
  – Developers
  – Management

Example

• Traffic controllers’ attitudes towards train drivers and vice versa.
• The IT managements attitudes towards case handlers (skilled or must be controlled)
• System developers attitudes towards process controllers (management by exception or by awareness)
• Developers attitudes towards users, regarding their age and gender.
Ethical usability tools

Iordanis Kavathatzopoulos

IT and ethics

• IT is necessary, modern society can not function without it
• IT affects significant values for persons and organizations
• IT is malleable, it can be a tool for almost everything
• IT have a much bigger impact, both positive and negative, on all aspects of life, compared to any other artifact

Ethical usability?

• Ethical aspects have an increasing impact on IT usability
• Good IT do not cause conflicts
• Good IT satisfies important values and interests
• People do not want to and cannot use IT that do not satisfy the above, independent of its other usability aspects
Is it easy or difficult?
Generally we are constrained because of our nature but ethics are harder:
• Incompatible values decide right and wrong
• Contradictory cases, e.g. double standards
• Strong emotions
• Authority is very important
• Focus on content not on process

Ethical insecurity?
Handling of moral issues creates a big risk: *Important myths can be destroyed*
• For persons: Resolution of problems, personal development, but risk to lose enthusiasm, get disoriented, lost, cynical
• For organizations, society: Hero, e.g. whistle blowing (courageous, responsible), or offender of persons and principles (show no respect, disloyalty, treason, hostility)

What do we need?
• Ethical competence: Know how to handle ethical issues, how to think
• Ethical confidence: Know that we can find good solutions (i.e. know that our skill and our way of handling moral issues is working)
How do we think?

- **Heteronomy**: automatic, dogmatic, constrained, authoritarian thoughts, instincts and reflexes
- **Advantages**: Quick, safe, economic, avoid responsibility
- **Disadvantages**: Bad control, chancing, difficult to explain

Could we do better?

- **Autonomy**: Critical searching, systematic thinking, supervision, holistic
- **Disadvantages**: Demands time, resources and skill, create anxiety
- **Advantages**: Good control, insight, awareness, responsibility, easy to explain

What is morality and ethics?

- **Content**: “Right actions are moral but wrong actions are immoral”
- **Choice**: “Morality and ethics are related to choice”
One example
You are the president of a company developing a new personnel administration system for another company where information on its employees will be stored. There are many security levels to choose among but your customer wants the cheapest one which also happens to be the less secure. You are convinced that hackers or even employees will be able to access this information. You have warned your customer but they want to take the risk.

Heteronomy: giving up control and responsibility, one thought dominates

Automatic reactions
• It is going to be a big scandal!
• It is the customer's responsibility!
• Don't worry! It's going to be alright!
• This is the way to do things, etc.

Dogmatic fixations
• People's integrity must be respected!
• You should always obey the law!
• Image is very important!
• Finances are very important!
• Customers should be respected!

Autonomy: take control and responsibility, holistic

Relevant values and interests
• Do I want to support the customer?
• Is the relationship to my customer important?
• What do customer's employees feel?
• Do I care about my image or finances?

Possible alternative actions
• Design according to customer?
• Follow your own plans?
• Negotiate more?
• Give up?

How do the different alternatives affect values?
Autonomy Skill

- Analysis of the concrete situation instead of general moral principles
- Specification of own and relevant others’ essential interests, values and feelings
- Generation of alternatives and weighing against the essential values
- Building a comprehensive picture of the problem situation to reflect upon before decision or action

<table>
<thead>
<tr>
<th>Autonomy thinking</th>
<th>All relevant values, interests, duties, feelings, needs, etc.</th>
</tr>
</thead>
</table>
| Design acc. customer | Own economy | Employees integrity | Customer’s finances | Own reputation | (cont.) | ...
| Positive but risk for bad image | Risks for personal integrity, but still at work | Chance to make profit but risk for conflict | Cynical, but responsible for own company | -- | -- |
| Negotiate | Customer get tired, but maybe a safer contract | Chance to secure rights, but not risk to lose job | Higher losses, but avoidance of conflict | Indecisive, fearful, but cautious and serious | -- | -- |
| -- | -- | -- | -- | -- | -- |
| (cont.) | -- | -- | -- | -- | -- |

Assignment 6

- Read an article or describe a method or interview people regarding basic values, attitudes and ethical skills in IT design, development and/or usage.
- Describe the contents, results etc of your study.
- What is your opinion concerning what is important? Analyse and reflect about how to reach good prerequisites for successful introduction of IT in a work environment.
E.g. Ethical usability tool

- Apply Autonomy Analysis to the article or method you are studying.
- Identify all relevant/significant values and interests.
- Choose alternative solutions.
- Include the motivation in your report and in your oral presentation.