

# **Ethical Issues**

# Approaching ethics

Ethics is a massive subject. We will approach it practically by considering some ethical dilemmas that may come up in your professional career.

We will use the **BCS Code of Conduct** as our starting point.

We may also consider **general frameworks for ethics**, such as minimizing harm.

We will also consider **relevant legislation**.

In a professional scenario, it may also be essential to consider **company policy**.

# Decisions not straightforward

Ethical decision making is often not straightforward.

For example:

You are working on a software project that is behind schedule. It must be delivered by a certain date. What is to be done?

- Deliver software that has not been fully tested?
- Deliver software with incomplete functionality?
- Break the budget to get it out on time? (Is this even possible?)
- Delay delivery?

# Decisions not straightforward

In each case there is the added issue of whether you tell the customer.  
(That could lead to penalty clauses being invoked.)

Each answer has a **downside**.

## Who makes the decision?

Is the problem kept from senior management? (The project manager has his/her career and mortgage to worry about.)

You are junior member of the team and disagree with the decision made.  
Do you keep quiet (and keep your job) or 'blow the whistle'?

# Ethical dilemmas

There is often **no single right** decision. Two people can come up with different answers.

Notion of a **defensible decision**.

One approach is the notion of **harm minimisation** – choose the action that will lead to the least harm.

Often the decision taken is to **maximise benefit** and **minimise harm** to yourself. The notion of **self** can be extended to include your group or company.

However, is this good/bad professionalism?

# Ethical dilemmas

Concentrating on the effect on yourself can appear to be unethical, but you could be regarded as being silly if you took an action that harmed yourself.

Certainly companies will normally **concentrate on self-interest** – otherwise they may not continue to **exist**.

However there can be a conflict between **short-term** and **long-term** interests.

# Law and ethics

**No problem** when an action is **legal and ethical**.

However, many actions are **legal, but arguably not ethical**.

Examples:

- revealing information that was meant to be confidential;
- using copyrighted software in a country that has no software copyright laws;
- selling to a second client software that was developed exclusively for one client.

# Law and ethics

Some actions are arguably **ethical, but not legal**.

Examples:

- civil disobedience to highlight a 'just cause'.  
(Obviously there will not be general agreement on what is 'just').



# Law and ethics

Other actions are **unethical and illegal**.

Ethically, they are easier to deal with.

Examples:

- making copies of copyrighted software;
- planting viruses;
- hacking.

# Guidelines for resolving dilemmas

Does the action break **company policy**?

Does the action break **professional codes of conduct**?

**Legal position.**

How would **you feel** if someone did that to you?

# BCS Code of conduct (0)

## Definitions:

**Legislation** - The term “Legislation” means any applicable laws, statutes and regulations.

**Third Parties** - The term ‘Third Parties’ includes any person or organisation that might be affected by your activities in your professional capacity, irrespective of whether they are directly aware or involved in those activities.

**Relevant Authority** - The term “Relevant Authority” in this document is used to identify the person(s) or organisation(s) which has / have authority over the activity of individuals in their professional capacity. For practising BCS members this is normally an employer or client. For student members, this is normally an academic institution.

# BCS Code of conduct (1)

## Public Interest

You shall:

- a)** have due regard for public health, privacy, security and wellbeing of others and the environment.
- b)** have due regard for the legitimate rights of Third Parties\*.
- c)** conduct your professional activities without discrimination on the grounds of sex, sexual orientation, marital status, nationality, colour, race, ethnic origin, religion, age or disability, or of any other condition or requirement
- d)** promote equal access to the benefits of IT and seek to promote the inclusion of all sectors in society wherever opportunities arise.

# BCS Code of conduct (2)

## Professional Competence and Integrity

You shall:

- a) only undertake to do work or provide a service that is within your professional competence.
- b) **NOT** claim any level of competence that you do not possess.
- c) develop your professional knowledge, skills and competence on a continuing basis, maintaining awareness of technological developments, procedures, and standards that are relevant to your field.
- d) ensure that you have the knowledge and understanding of Legislation\* and that you comply with such Legislation, in carrying out your professional responsibilities.
- e) respect and value alternative viewpoints and, seek, accept and offer honest criticisms of work.
- f) avoid injuring others, their property, reputation, or employment by false or malicious or negligent action or inaction.
- g) reject and will not make any offer of bribery or unethical inducement.

# BCS Code of conduct (3)

## Duty to Relevant Authority

You shall

- a)** carry out your professional responsibilities with due care and diligence in accordance with the Relevant Authority's requirements whilst exercising your professional judgement at all times.
- b)** seek to avoid any situation that may give rise to a conflict of interest between you and your Relevant Authority.
- c)** accept professional responsibility for your work and for the work of colleagues who are defined in a given context as working under your supervision.
- d) NOT** disclose or authorise to be disclosed, or use for personal gain or to benefit a third party, confidential information except with the permission of your Relevant Authority, or as required by Legislation
- e) NOT** misrepresent or withhold information on the performance of products, systems or services (unless lawfully bound by a duty of confidentiality not to disclose such information), or take advantage of the lack of relevant knowledge or inexperience of others.

# BCS Code of conduct (4)

## Duty to the Profession

You shall:

- a)** accept your personal duty to uphold the reputation of the profession and not take any action which could bring the profession into disrepute.
- b)** seek to improve professional standards through participation in their development, use and enforcement.
- c)** uphold the reputation and good standing of BCS, the Chartered Institute for IT.
- d)** act with integrity and respect in your professional relationships with all members of BCS and with members of other professions with whom you work in a professional capacity.
- e)** notify BCS if convicted of a criminal offence or upon becoming bankrupt or disqualified as a Company Director and in each case give details of the relevant jurisdiction.
- f)** encourage and support fellow members in their professional development

# Case studies

We are now going to examine and discuss several case studies.

In doing this, it is **important to always identify the stakeholders** and how they are involved in the situation.

Then use the guidelines we have discussed as a framework for carrying out an analysis of the ethics of the situation.

Consider the pros and cons of alternative actions and then make a final decision – that you can defend!

Your exam will include a question which may involve you discussing case studies of this nature.



# Case Study 1

You are working as a member of a **team developing software**.

You have some tricky programming to do that you find difficult.

You talk to a more experienced colleague who tells you about similar code written as part of another project and already paid for by a client.

You lift the code and incorporate it into your solution.

It therefore appears that you solved the problem yourself and you do not give credit to the real source.

# Case Study 1a

Would the situation be changed if you **informed your team manager** what you had done?

You would then not be passing the work off as your own.

Is this just then a practical example of code reuse and therefore good software engineering?

# Case Study 1b

If it were **design that you had lifted**, would it be OK?

After all you are then just applying a design pattern.

# Case Study 1b

If it were code that you **yourself had written** as part of a previous project would it be OK to reuse the code?

# Case Study 2

You are given the opportunity to work on a fascinating project that will revise an existing machine control program by automating processes under a central control.

Further information shows that if it is successfully implemented, **50 people will be made redundant.**

# Case Study 3

You are a **senior systems analyst** investigating the needs of a large company.

You find that there is a large gap between what they need and what they are realistically willing to pay.

You are under pressure from your company to get the contract.

However, you know that any system that you could offer at the price they are willing to pay would not satisfy their needs.

# Case Study 4

You are gathering the **requirements** for a new system by talking to potential users.

Some of the requests will involve a lot of work and you would like them to be removed.

It would be quite easy to convince them that solutions to these requests were not technically possible (as opposed to being difficult and expensive).