

- Arguments
- Analysing issues
- Writing

Why arguments are important (1)

- In PSI, you will be required to write essays demonstrating your understanding of professional issues.
- In your projects, your dissertation will contain arguments such as:
 - why your project is significant
 - why you chose a particular design (and why you rejected alternatives)
 - why you chose a particular algorithm (and why you rejected alternatives).

Why arguments are important (2)

- As an IT professional, you will be expected to contribute to your employer's decision making:
 - What market should you pursue?
 - Which technologies should you use?
 - What features should your product have?
 - Should development be done in-house, or outsourced?
 - Is your product ready for delivery?
- In general:
 - How will you persuade other people that you are right?
 - Why should other people believe what you have to say?

Argumentative essays (1)

- An argumentative essay contains:
 - a logically structured argument
 - a clear conclusion (logically following from the argument)
 - relevant evidence (whether supporting the conclusion or not).
- An argumentative essay is *not*:
 - a disorganised dump of material vaguely related to the topic
 - an unsubstantiated opinion
 - an opportunity to vent your prejudices
 - an opportunity to push a hidden agenda.

- Present *all* sides of the argument.
 - This shows that you have considered all sensible alternatives.
- State your conclusion:
 - You must take a stance.
 - A decision must be made.
 - Action must be taken.
- Collect *all* relevant evidence.
 - Include evidence that weighs both for and against your conclusion.
 - Base your conclusion on the *balance* of evidence.

Analysing issues (1)

- To construct an argument on a given topic, first analyse the issues systematically.
- The following 5-point analysis tool is useful.

1. What do I know about the topic?

- What is the topic? Is it well-defined?
- What happened / is happening / will happen?
- Who is involved / affected?
- What is the wider context?

2. What are the underlying professional, social, ethical, and/or legal issues?



Analysing issues (3)

3. What are the *reasonable* opinions on the topic?
4. For each opinion, what are the reasons for which someone might hold it?
 - Often these relate to ethical convictions.
5. Which opinion do you hold?
 - Why do you hold this opinion?
 - Why do you *not* hold any of the other opinions?

Example: e-voting (1)

- Consider the following topic:

Should electronic voting (e-voting) systems be used for political elections?

Example: e-voting (2)

1. What do I know about this topic?

- What is meant by e-voting?
- Who are affected by e-voting?
- Who is pushing to have e-voting adopted? Why?
- Has e-voting been used in political elections in this country? in other countries?
- What are the observed/potential benefits?
- What are the observed/potential problems?
- What is the wider social context?

2. What are the underlying professional, social, ethical, and/or legal issues?

- Some issues:
 - privacy (how can voters be sure that their votes are secret?)
 - transparency (how can voters be sure that their votes have been recorded correctly?)
 - auditing (how can voters and officials be sure that the votes have been counted correctly?)
 - security (how can electoral fraud be prevented or at least detected?)

3. What are the *reasonable* opinions on the topic?

- Some arguments from student essays:
 - “E-voting will make the results of the election available instantly.”
 - “E-voting will allow people who are disabled to vote.”
 - “E-voting caused widespread irregularities in the US elections in 2000 and 2004.”
 - “E-voting will make it impossible to spoil your ballot paper.”
 - “E-voting will save money.”
 - “E-voting will allow more referendums.”
 - “It is not technically possible to create 100% reliable software, and so any e-voting system will be vulnerable to hacking.”

Example: e-voting (5)

4. For each opinion, what are the reasons for which someone might hold it?

- Some arguments explained:
 - “E-voting will make the results of the election available instantly.”
A computer system can instantly record and count the votes.
 - “E-voting will allow people who are disabled to vote.”
Special-purpose voting stations with large screens, braille keyboards, joysticks, etc., are technically feasible (but expensive).
 - “E-voting caused widespread irregularities in the US elections in 2000 and 2004.”
Badly designed ballot cards caused voters to select unintended candidates; some voting stations misinterpreted voters’ selections; etc.

Example: e-voting (6)

5. Which opinion do you hold?

- If you think that speedy counting and better help for disabled voters are most important, you might recommend a move to e-voting.
- If you think that problems with transparency, auditing, and security are unlikely to be surmounted, you might recommend continued use of paper ballots.

- Writing well is not easy!
- Details are important:
 - spelling
 - grammar.
- Structure is also important:
 - headings
 - paragraphs
 - continuity.

Writing skills (2)

- There will be two essay writing workshops later in the course.
- In the meantime, the “Writer’s Diet” provides a test facility with which you can get feedback on the quality of your writing:

www.writersdiet.com

- Assistance is also available at:

khios.dcs.gla.ac.uk/writing



- Making your point

- concisely
- convincingly
- comprehensively

is an incredibly useful skill, throughout life.

- The 5-step analysis tool presented here should help you develop a strong argument

- an argument that is persuasive even to others who don't already share your opinion.