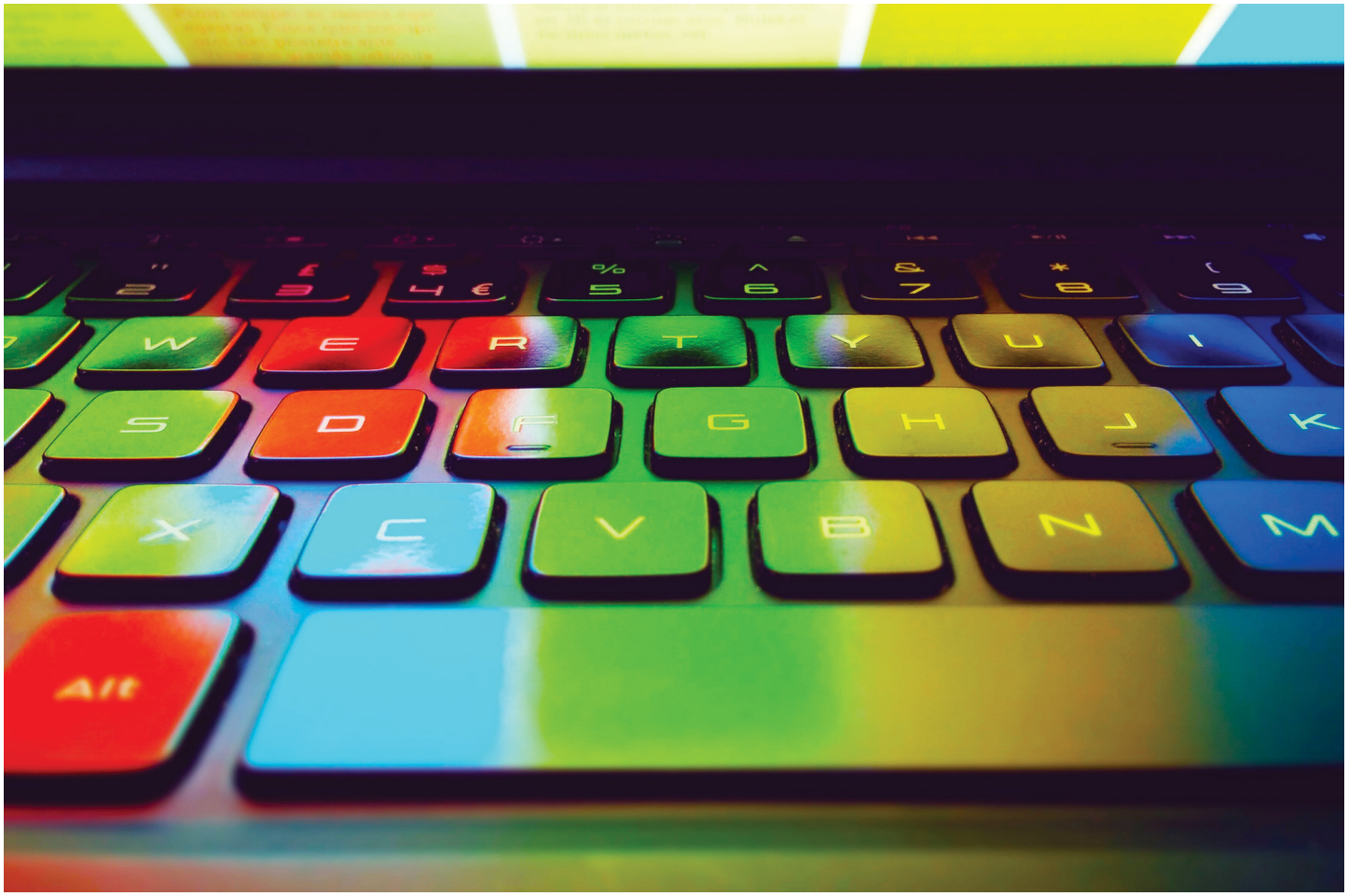
OpenLearn

The Open University

Introducing Ethics in Information and Computer Sciences



About this free course

Find out more about studying with The Open University by visiting our online prospectus.

This version of the content may include video, images and interactive content that may not be optimised for your device.

You can experience this free course as it was originally designed on OpenLearn, the home of free learning from The Open University: www.open.edu/openlearn/education/educational-technology-and-practice/educational-technology/introducing-ethics-information-and-computer-sciences/content-section-0.

There you'll also be able to track your progress via your activity record, which you can use to demonstrate your learning.

The Open University, Walton Hall, Milton Keynes, MK7 6AA

Copyright © 2016 The Open University

Intellectual property

Unless otherwise stated, this resource is released under the terms of the Creative Commons Licence v4.0 http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en_GB. Within that The Open University interprets this licence in the following way: www.open.edu/openlearn/about-openlearn/frequently-asked-questions-on-openlearn. Copyright and rights falling outside the terms of the Creative Commons Licence are retained or controlled by The Open University. Please read the full text before using any of the content.

We believe the primary barrier to accessing high-quality educational experiences is cost, which is why we aim to publish as much free content as possible under an open licence. If it proves difficult to release content under our preferred Creative Commons licence (e.g. because we can't afford or gain the clearances or find suitable alternatives), we will still release the materials for free under a personal end-user licence.

This is because the learning experience will always be the same high quality offering and that should always be seen as positive – even if at times the licensing is different to Creative Commons.

When using the content you must attribute us (The Open University) (the OU) and any identified author in accordance with the terms of the Creative Commons Licence.

The Acknowledgements section is used to list, amongst other things, third party (Proprietary), licensed content which is not subject to Creative Commons licensing. Proprietary content must be used (retained) intact and in context to the content at all times.

The Acknowledgements section is also used to bring to your attention any other Special Restrictions which may apply to the content. For example there may be times when the Creative Commons Non-Commercial Sharealike licence does not apply to any of the content even if owned by us (The Open University). In these instances, unless stated otherwise, the content may be used for personal and non-commercial use.

We have also identified as Proprietary other material included in the content which is not subject to Creative Commons Licence. These are OU logos, trading names and may extend to certain photographic and video images and sound recordings and any other material as may be brought to your attention.

Unauthorised use of any of the content may constitute a breach of the terms and conditions and/or intellectual property laws.

We reserve the right to alter, amend or bring to an end any terms and conditions provided here without notice.

All rights falling outside the terms of the Creative Commons licence are retained or controlled by the Open University.

Head of Intellectual Property, The Open University

Designed and edited by The Open University

Contents

Introduction 5
Learning Outcomes 6
1 Good, bad, right or wrong? 7
1.1 ‘People, not guns, kill people’? 7
1.2 Ethical examples 8
1.3 Your thoughts 10
1.4 What is ethics? 12
1.5 Reasons 13
1.6 Final vocabulary 14
1.7 Ideology 16
1.8 ‘Ethics’, ‘ethical’ and authority 17
1.9 Final vocabularies in context 20
1.10 The story so far 22
2 It's not all Greek to me! 23
2.1 Introduction 23
2.2 Three Greek dialogues 24
2.3 Style and rhetoric 27
2.4 Relationships and conduct 28
2.5 The story so far 31
3 Relationships, emotions and ethics 33
3.1 Introduction 33
3.2 Relationships and ethics 33
3.3 Emotions and judgements 36
3.4 Negotiation and adaptation 39
3.5 The story so far 41
4 Ethics everyday 43
4.1 Introduction 43
4.2 The good, the bad and the loyal 43
4.3 Can theft be right? 44
4.4 Legitimacy vs rights 45
4.5 Torture 45
4.6 What matters? 46
4.7 The story so far 48
5 Landscape with Weapon: an allegory 49
5.1 Introduction 49
5.2 The characters 49
5.3 Ethics and ethos: ‘does mum know?’ 52
5.4 Intellectual property rights and value 54
5.5 Rhetorical devices 55

5.6 Identification 57
5.7 The story so far 57
5.8 Rights 58
5.9 Ethical reasoning 59
5.10 Conscience 61
5.11 Promises 62
5.12 Interests 63
5.13 The final Act 65
6 Conclusion 67
7 Summary 68
Keep on learning 70
References 70
Acknowledgements 72

Introduction

Ethics is an established area of academic interest, but it is only fairly recently that the relevance of ethics to Information and Computer Sciences (ICS) started to emerge clearly outside philosophical studies. Professional bodies in Engineering and ICS have begun to require, as a condition for accreditation, the study of ethics-related topics, and, partially in response to these requirements, new pedagogies for teaching and learning these topics are gradually emerging.

This course explores the idea that drama and dialogue provide powerful tools to help ICS students and professionals to identify, discuss and understand the role of ethics in their professional practice. The core of the course is based upon discussion of a selection of plays and dialogues that raise ethical questions of relevance to professionals. The examples also represent different styles of argumentation and, hence, illustrate the relevance of rhetoric to professional practice in ICS. Although the course introduces some ideas taken from academic texts in the area of ethics, it does so to provide learners with a shared vocabulary that can be used for practical analysis and discussion of 'real' problems.

'Introducing ethics in Information and Computer Sciences' has been created to provide a predominantly self-contained resource including a mix of materials on different media. The last section in the course, however, revolves around the analysis of a play script – Joe Penhall's Landscape with Weapon – which we are unable provide online as it is currently subject to copyrights restrictions. To derive maximum benefit from the course, we strongly recommend that you obtain a copy of the play. Crucially, although the course has been tentatively designed to be read and studied independently, the authors strongly believe that group discussions provide the best context for exploring the materials, so, if you are studying this material online, we recommend that you use the course forum to share your views with other learners. Also, please use the course forum to leave comments and feedback you might like to share with the authors: we will be most grateful for you thoughts!

Bearing in mind that one of the aims of this course is to develop awareness of ethical issues in different contexts, we suggest the use of a learning journal not only as a note-taking device, but also as a file to register experiences and thoughts on conversations as well as readings outside the course (e.g. newspapers).

The course is based upon a conceptual framework developed by Professor John Monk, and it capitalises on the lessons and feedback gathered during a trial course run by the authors in 2008 with a small group of volunteers using FM, the Web 2.0 videoconferencing tool available on OpenLearn. The course is available in various formats for download and reuse within the Creative Commons Attribution-Non-Commercial-Share-Alike 2.0 License. The authors very much hope that learners and colleagues will not only profit from but also build on this work: we acknowledge the course as a first draft initially shared over the Web but, nevertheless, deserving of further development.

Find out more about studying with The Open University by visiting our online prospectus

Learning Outcomes

After studying this course, you should be able to:

- discuss what ethics is and what constitutes an ethical issue
- identify and discuss ethical issues that arise in the media, in routine conversations and, in particular, in personal everyday professional practice
- discuss the role of emotions in ethical deliberations
- discuss how negotiation might resolve apparent ethical differences
- identify and discuss the ethical issues presented and rhetorical styles used in play and dialogue excerpts, with focus on explaining how language is used to alter other people's ethical perceptions and convince them of specific points.

1 Good, bad, right or wrong?

1.1 ‘People, not guns, kill people’?

> Navigation, which, like oratory, saves not only people's lives from extreme danger but also the persons and property which belongs to them. Navigation is a modest art that knows her place; she does not put on airs or make out she has performed some brilliant feat, even though she achieves as much as forensic[public] oratory; she brings people safe from Aegina for no more than two obols, I believe, and even if they come from Egypt or Pontus or ever so far away, the very most she charges for this great service, for conveying in safety, as I said, a man and his children and property and women, is two drachmae when he disembarks at the Piraeus.

The quote above is taken from Plato's dialogue *Gorgias* (§511d–e). In this and the following passage, which is likely to seem more than a little insensitive to present day readers, Socrates compares the work of two professions — the navigators or ship's skippers and the engineers – with that of orators. Earlier in the dialogue, Socrates’ interlocutor, Gorgias, had arrogantly claimed that orators inhabited a province that is the ‘greatest and best human of concerns’ (§451d) and which ‘serves … to produce the kind of conviction needed in courts of law and other large masses of people … and the subject of this kind of conviction is right and wrong’ (§454b). Socrates then attempts to show that the engineer and the navigator, with little fuss, also provide services to a wide community. Nevertheless, Socrates adds that the engineer and the navigator recognise that that community will inevitably include ‘good’ and ‘bad’ people.

But why, then, is the ferry's skipper so modest? Why does the skilled navigator, after landing, walk ‘about the shore beside his ship in an unassuming way’? Socrates puts the answer rather bluntly. He suggests the navigator can deploy his skills to keep people safe but also to deliberately put people in danger and therefore has the opportunity to conduct merciful drownings, but he cannot know which of his charges deserve a safe passage and which are less deserving, or whose unbearable pain could be relieved. In a less brutal way he then explains that the ferryman ‘knows he has landed [his passengers] in no better condition, in body or soul, than when they embarked’, consequently ‘the skipper, although he saves lives, is not in the habit of magnifying his office’. Similarly, the engineer, who in Plato's day was responsible for the defensive walls around a city that kept the citizens safe, and whose ‘ability to save [lives] is as great as that of a general’, cannot know which of the citizens that have been protected are ‘worthy’ and which are ‘unworthy’.

The engineer and the navigator generally do not know how the users of their products or services have lived their lives, so they cannot know what benefit or misery their products or services will perpetuate. That is why, Socrates surmises, the engineer as well as the navigator seldom make a fuss about what they do. Socrates is attempting to belittle the vainglory of the orator, but an implication here is that the engineer, navigator or orator cannot be expected to take any part of the blame for the misdeeds of the users of their products or services, nor are they able to act in practising their chosen profession to challenge or interfere with the activities of their beneficiaries. That is, their products and

services do not provide a medium for moderating other people's malign behaviour. This is closely consistent with the cliché that says ‘people, not guns, kill people’ (‘The gun Menace’ in *New York Times* 18 May 1972, p. 46 – see also Peter M. Nichols ‘Listening to the Shouting about Shooting’ in *New York Times* 27 June 1999, Section 13, p. 4). Taking the ferryman and the gun maker as representatives of different technologies, it would seem that both Plato's account and the cliché absolve the gun maker and the ferryman from any responsibilities.

1.2 Ethical examples

But is this a tenable position? In other words, is it only the people who use the technologies who carry the ethical burden? Conversely, is ethics of any interest to engineers, programmers and scientists? What, in the first place, constitutes an ethical issue? To begin examining these questions, let's look at some examples.

Example 1: The pensioner's faulty digital TV box

In 2006 a pensioner in Plymouth came back home one evening to find people standing by her front door holding a big antenna. Apparently the lady's digital TV box had a fault and accidentally transmitted on the emergency frequencies. The outcome of this was that an air-sea rescue mission was launched to search for a vessel in trouble, which, of course, did not exist. The case was widely reported on the media (see BBC News for a snippet [accessed 18 June 2009]).

You may ask yourself who was to blame for this blunder, or even if blame would need to be assigned at all, but you'll probably agree with me that, certainly, none of it was the pensioner's fault. A good question to ask would be this: should it have happened in the first place? Did the engineers who designed the box have a duty to look at ways of preventing fault conditions that could cause interference on the emergency frequencies? Such questions of duty are ethical questions.

Example 2: Safety on the railways in Britain

It is an unfortunate fact that fatalities occur on the railways across Britain, and, as a result, politicians tend to act quickly to allay public fears. In 1999 they announced the nationwide introduction of automatic systems to prevent trains passing through red lights, so as to prevent collisions (the Train Protection and Warning System – TPWS – deployment completed at the end of 2003; see www.railwaypeople.com [accessed 18 June 2009]). Naturally these systems have to be installed on the track and subsequently maintained. The problem is that the trackside is a very dangerous place. Actually, the rate of fatalities amongst the trackside work force is considerably higher per capita than that of passengers: passenger fatalities are approximately 1 in 112,500 per year (TPWS predicted improvement: 7.9 per cent), whilst track workers fatalities are around 1 in 7,000 per year (see the Health and Safety Statistics provided by the Office of Rail Regulation, online at www.rail-reg.gov.uk [accessed 18 June 2009]). Bearing these figures in mind, it would seem that the result of the government's initiative might be that more rail workers would be likely to be killed in the course of installing and maintaining the additional system. It really is not clear whether the overall death toll will be higher or lower with the new safety system installed.

Now suppose the engineers recognised this and even had strong evidence that the cost in lives would be considerably higher. It would still require considerable political skills to overturn a decision already made by the politicians. Here we would have a very complex situation, one which I could make yet a bit more complicated. For instance, I could argue that, if we didn't install the system aimed at saving passenger's lives, then maybe people would see the headlines on the newspapers and decide to travel by car instead of taking the train. But, of course, as soon as they did that, because statistics suggests that it's more dangerous to travel by car, there might be more deaths than there would be originally. In other words, fewer people would trust the train and take greater risks on the road. So, in the case of the railway system, working out what the best course of action might be isn't a particularly straightforward proposition. Even if I had an especially strong case, I would still have to persuade politicians and the lay audience.

This example illustrates that technology developers, in considering technical matters, have not only to understand the ethical issues involved, but also be able to present good arguments.

Example 3: Internet protocols

This example is a bit more subtle and less hazardous as it is hidden away in the Internet protocols. One of the primary protocols on the Internet is TCP (Transmission Control Protocol). There is always a question, when starting to communicate using this or any other protocol, about what the rate of data transmissions should be. In a revision of the early version of TCP, the speed of transmission begins slowly, and if this is successful – with success indicated by the receipt of an acknowledgements from the recipient in a reasonable time – the transmission speed is slowly increased. If at any stage there is a succession of failures, the transmission speed is reduced in large steps until success is consistently achieved. Transmission rates are then gradually increased again.

The way this can be done is given in RFC 1122, which identifies ‘work by Jacobson on Internet congestion and TCP retransmission stability [which] has produced a transmission algorithm combining "slow start" with "congestion avoidance"’. RFC1122 goes on to stipulate that ‘TCP MUST implement this algorithm’. The opening to RFC 2481 explains broadly how the congestion control operates, identifies some issues and proposes changes to lower level protocols. In practice, refinements were made to the TCP congestion control, and RFC 2001 documents the refinements to the congestion control algorithms, giving details of the TCP protocol congestion control and start-up as it operated in working systems. This was converted into a standard recorded in RFC 2309 (which later gained some small modifications in RFC 3390). The mechanisms have proved to be largely effective, but experience of the mechanisms effectiveness has been gained when individual elements of the Internet behave according to the specified start-up and congestion avoidance procedures.

The crucial points are that, on the Internet, there is no central control; congestion can occur and can be detected. If it does occur, there are prescribed ways in which the software in any data transmitter using TCP should behave. Broadly, each sender must reduce their demands in steps until the congestion disappears. Once congestion is cleared, they can then ramp up their demand. It is a way of regulating usage to prevent gridlock. Although there is a standard way of doing this, the standard merely imposes constraints on how things are done, so within the standard variations are possible. Also, research continues with the aim of improving the performance of TCP under conditions of heavy traffic. To

some degree, therefore, the actual performance of the Internet is in the hands of individual programmers who chose to produce the variants of the TCP congestion control mechanisms.

However, knowledgeable and devious programmers could write software that starts up quickly, backs off more slowly or, perhaps, not at all and, once the congestion is clear, ramp up their demand more rapidly than the standard requires, in order to grab a greater share of the communication resources than others. The fair allocation of resources, therefore, depends on adherence to a standard and on self-restraint. In other words, it depends on everyone sticking to the rules.

If there were a 'free-for-all' and people did not bother to stick with the standard, it would be impossible to predict the consequences. However, if the intention were to get as much of the communication as possible, that might lead to a 'congestion collapse' similar to that described in RFC896, which occurred in the early days of the Internet before congestion control was introduced. While there is excess capacity, there are no problems, but as congestion begins to occur, data is delayed, and senders waiting for an acknowledgement may conclude data has been lost and, consequently, retransmit. This adds to the traffic on an already congested network, making matters worse by creating more delays. In this way the capacity of the network diminishes and every communicating device gets a worse service. It has been observed (in RFC896) that once a 'saturation point has been reached, (…) the network will continue to operate in a degraded condition' in which each item of data is transmitted several times rather than once.

The ethical 'lesson' here is to do with questions regarding something that, although of immediate benefit to an individual, may, if practised widely, be detrimental to everyone – the common good.

In the examples that I've given you, **fairness**, **duty**, the **distribution of harm and benefit** and the **need for political skills**, all of which are ethical issues, and feature clearly in a technological context. These are only a few examples amongst many, but they do suggest that ethics is something that does concern designers and engineers, lending support to the case that the study of ethics is useful to technology developers.

1.3 Your thoughts

What I have not done yet, however, is to say what ethics actually is! Before doing that I would like to give you an opportunity to collect your own initial thoughts on the matter and introduce some further ideas. Let's start with your reflection.

Activity 1

In your Learning Journal jot down a short paragraph (about 40–50 words) on what you think ethics is.

Comments

This question provides an ideal cue for group discussion. Indeed, in our 2008 trial we heard some really interesting suggestions from participants, and I've selected some examples for you:

Participant answer 1: *Ethics is the study of the good leading to living the virtuous life; it's the Buddhist concept of 'right conduct' and the Te conduct in the Tao Te Ching of Lao Tse. Ethics derives from the Greek word ethos meaning 'character'*.

Participant answer 2: *Ethics is about balancing between rights and wrongs, rights and responsibilities, individual and society – the underlying concept of 'good' and how we can achieve the best possible balance of good for everyone*.

Participant answer 3: *Ethics provides frameworks for individuals to determine a moral stance and argue their moral stance and examine the moral stances of others. Ethics is the individual's code of conduct, influencing their experiences and perceptions and mediated by the values and their culture.*

Naturally these answers are articulated in different styles, but the word 'good' appears explicitly in all of them, which is particularly interesting. Did you include the term in your own definition as well?

Activity 2

Having now read the activity comments for Activity 1 you might raise a number of further questions. Consider an interesting one: Is 'wrong' the opposite of 'right'?

Comments

When you try and weigh up 'rights' and 'wrongs' you wind up in all sorts of difficulties. Let me give you an example taken from my professional experience. A while ago I talked to some young engineering graduates working on the notorious terminal five at Heathrow. They enjoyed designing things but particularly disliked meetings with architects. They reported feeling ill-prepared for discussions with other professionals, and said they couldn't see why they often failed to get their point across.

The issue was that the two groups of professionals, the engineers and the architects, evaluated things in very different ways. What each thought were 'good' or 'bad' outcomes were different. The technologists were worried about reliability, heat dissipation and so on, whilst the architects were worried about space. When they tried to justify things, the engineers' justifications didn't work with the architects, and the architects' justifications didn't work with the engineers. They had different ideas of what 'good' and 'bad' were, and they also argued and rationalised their thoughts in different ways.

This example illustrates the point that there is no single 'right' way of doing things. Indeed you can often be faced with incommensurable 'goods' and 'bads', and it is not at all obvious as to how you can unify them, how you can compare them. It may often not be possible to figure out a single, 'correct' way that will reconcile very different ways of assessing thinking and arguing. This is indeed something that professional ethicists are very worried about and refer to as **aggregation**, and they are particularly interested in the consequences of aggregating things in particular ways. I'll discuss this in more detail later on in the course.

1.4 What is ethics?

I'd like to introduce an idea of ethics based on the work of G. E. Moore, a Cambridge Don who died fifty years ago. Bearing in mind that concerns with ethics date back at least to the Ancient Greeks, you might not be surprised that I bring in some ideas from Moore's *Principia Ethica*, a text written over 100 years ago but articulated in a particularly clear and plain-speaking style. Moore's take on things is that when ‘good’ and ‘bad’ are involved, then we're in the realm of ethics. He wrote:

> This, then, is our first question: What is good? and What is bad? and to the discussion of this question (or these questions) I give the name Ethics, since that science must, at all events, include it.
>
> (*Moore 1903, Chapter I: The Subject-Matter of Ethics §2*)

Example 4: ‘Excellent’ teachers

An article in the *Financial Times* (‘Bad teaching can cost exam pass’ – available online at http://us.ft.com [accessed 18 June 2009]) claims that ‘an “excellent” teacher could boost a pupil's results by one … grade in comparison to a bad teacher, while a good teacher could be worth 0.6 of a grade’. That is an ethical statement about teachers and suggests that there is a kind of scale along which teachers can be evaluated: ‘excellent’ teachers, ‘good’ teachers and ‘bad’ teachers. There is also a relationship between the terms that is translatable, or so the article claims, into exam grades that pupils get. In this way, exam grades gain an ethical status: low grades are a ‘bad’ thing because the ‘bad’ teacher seems to be getting the lowest grades.

Moore also wrote ‘good’ is ‘indefinable’, so we don't quite know what it is, though sometimes, because of connections between things, I might conclude something is ‘good’ or ‘bad’ by aggregating lots of constituent indefinable ‘goods’ and ‘bads’. I still have to make a decision in the end, but there is no universal way of doing this.

So we have collections of ‘goods’ and ‘bads’ that are indefinable and we may not agree upon, and ways of conflating them that we also may not agree on. Clearly, the topic of ethics is not straightforward.

To illustrate these ideas I would like to use an example taken from a play: George Bernard Shaw's (1903) *Major Barbara*. You can find a short excerpt in Box 1. In the play, Andrew Undershaft is an arms manufacturer who has the disarming habit of doing the ‘right’ thing for the ‘wrong’ reasons. For instance, in this particular case, people are impressed by his humility when he donates to the Salvation Army anonymously, until they discover (see emboldened text in Box 1) that he wasn't really being humble, he was just protecting himself. But the question is: if in the end the Salvation Army gets the money, and you think that's a ‘good’ thing, then what's wrong with that? The ‘right’ outcome is what is wanted, so do the reasons really matter?

Box 1: Excerpt from George Bernard Shaw's *Major Barbara,* Act III

LOMAX:	That was rather fine of the old man, you know. Most chaps would have wanted the advertisement.
CUSINS:	He said **all the charitable institutions would be down on him like kites on a battlefield if he gave his name**.
LADY BRITOMART:	…He never does a proper thing without giving an improper reason for it.

What do you think: if the right outcome is what is wanted, do the reasons matter? Take a few moments to consider this question before reading on.

1.5 Reasons

One thing that reasons do is to provide explanations as to why someone acted in a certain way. If someone gives ‘wrong’ reasons, then doubts may arise about the quality of any deliberations undertaken by that person. So, ‘wrong’ reasons raise doubts concerning his or her future actions and the products of those actions. Quite a lot hinges on people's experiences of other people's judgements, so if someone's judgements seem to have given satisfactory results in the past, then we're inclined to give those people some authority and their explanations some credence. Of course relying on explanations does open the opportunity for others to use rhetoric to ‘fake’ good judgement, to rewrite history, basically, to do less than benign things. These are all tricky areas. The bottom line here is that reasons, or, rather, justifications, are about building **trust**. We want to see people give ‘good’ reasons because, if they give us ‘good’ reasons this time, perhaps we might trust their judgement next time. Proficiency in ethical reasoning is mainly about building and reinforcing trust, which is essential to a professional building and maintaining his or her identity. Consequently, reasons do matter because much of the work of professionals is about building ‘good’ reasons for what they do or recommend.

With its focus on the written word, academic study of ethics is less about doing things and more about the reasons for doing things. Academics in a specialist area ask questions such as:

- Is the reasoning sound?
- Are the reasons based on sound premises?
- What assumptions are being made?

On the other hand, there are also outcomes and actions that cause an outcome, aside from the reasons for action. All, actions, reasons and outcomes, could be labelled ‘good’ or ‘bad’, and one does not exclude the other, as the words in the play excerpt in the previous section so nicely illustrated. For instance, a clumsily executed action may have a ‘good’ outcome, or a well-executed action may have objectionable results. All of these things could be treated separately, but if we're involved in the study of ethics, then in the academic world we tend to look at reasons. Reasons can be analysed, and that's where academics tend to focus the study of ethics: on justifications. Sometimes the focus of analysis is on outcomes. When reasons have not been clearly expressed, ethicists often look at outcomes and try and find out what the reasons might have been.

Naturally, reasons are not essential. We all do things without reasoning about them, through instinct, habit, intuition, guesswork and so on. But action, particularly if you're a technology developer, requires the capability to act, so you need to be able to use the tools or, more often than not because technology is a team effort, you need the authority to get others to act on your behalf. Neither the capability nor the authority may be forthcoming. Assembling the reasons is part of the effort to gain, first of all, self-confidence (‘do I know what I'm doing?’) and, secondly the trust and authority that will ensure the co-operation of others. The academic study of ethics tends to focus on reasons for doing things, which is useful because as technologists we need to develop our skill in reasoning, in presenting reasons for doing things, because reasons can persuade other people that those things should be done.

G.E. Moore wrote that both outcomes and the means to achieve them have ‘good’ and ‘bad’ aspects and neither should be ignored. In other words, both the product (end) and the process (means) matter, and, since developers are often part of the process, then their conduct matters too.

Artefacts and services are not only used, they have to be constructed, and they often have to be maintained and, ultimately, discarded. Materials have to be sourced. At each stage questions of harm and reward can arise: harm or reward to the workforce, harm or benefit to the environment and harm and benefit to the users and possibly the harm and benefit to the mis-users. All of this is in the hands of technology developers!

1.6 Final vocabulary

Any ethical analysis has to be grounded on something, otherwise the analysis has no end. And since reasons will be couched in words, I think it is helpful to look at what the philosopher Richard Rorty has called a ‘final vocabulary’. He suggests:

> All human beings carry about a set of words which they employ to justify their actions, their beliefs, and their lives. These are the words in which we formulate praise of our friends and contempt for our enemies, our long-term projects, our deepest self-doubts and our highest hopes… I shall call these words a person's “final vocabulary”. Those words are as far as he can go with language; beyond them is only helpless passivity or a resort to force.
>
> (*Rorty, 1989, p. 73*)

I would add to this that, if I were frustrated and my words didn't enable me to justify what I was doing, then I might perhaps resort to insult or emotional outburst, of which passivity and violence that Rorty talks about are extremes. To actually get on with things, we need a set of words we can depend on, words we individually think are related to the ‘goods’ and ‘bads’.

Rorty continues to say that some individuals will be wedded to their final vocabulary while others may have doubts about theirs. The ones who are strongly wedded would be the ‘conservatives’ of this world, while those who have doubts are more likely to be the ‘liberals’ of this world. So your final vocabulary is, no doubt, different from mine. There is not necessarily agreement about what a final vocabulary should be and this will contribute to disputes about what constitutes a ‘good’ reason.

Rorty gives some examples of words that might be part of a final vocabulary. He divided up final vocabularies into two parts, a ‘thin’ and a ‘thick’ vocabulary. The first part ‘is made up of thin, flexible, and ubiquitous terms such as “true”, “good”, “right”, and “beautiful”’

(*ibid.* p. 73). Probably we all use those. The other and larger part 'contains thicker, more rigid, and more parochial terms, for example "Christ", "England", "professional standards", "decency", "kindness" …"progressive", "rigorous", "creative"' (*ibid.* p. 73). By labelling his thick terms as 'parochial' Rorty appears to be linking them with a community of interest, implying that different communities may have different parochial final vocabularies. Rorty argues that these parochial terms 'do most of the work' (*ibid.* p. 73). In short, the final vocabulary provides terms that are not normally questioned and act as surrogates for 'good' and 'bad' for different people, groups and situations.

For technology developers, who commonly include things as well as people in their considerations, this final vocabulary may be sometimes distilled into the properties of things: an example might be the vehicle designers who see talk of low emissions as desirable. 'Low emissions' is a property of a vehicle. Developers may also present the final vocabulary in the form of rules, rules of thumb – unquestioned rules or constraints on reasons that are accepted by a particular group of technologists. In the field of technology we have these rules of thumbs and final vocabularies, and different groups of technologists will have different rules of thumb and different final vocabularies.

Example 5: Use of lead as a component

In the past most solders making the joints that connect electronic devices contained lead. Knowledge of the toxicity of lead brought in regulations that mandated lead-free solders in most electronic products. It has come to be recognised by most manufacturers that lead is 'bad', so having lead-free solder is a self-evident 'good' (see, for example, Ogunsei-tan, 2007). A similar move has taken place in people's final vocabulary regarding petrol: lead-free petrol is 'good'.

But there are some technologists who worry about lead and do dig deeper. One of the troubles is that, over time, lead-free solder can grow microscopic tin whiskers which can short out electrical connections, particularly where things are very tightly packed, and where things have to have a very long life (see Keller, 2005 for a more extended explanation). This is a particular issue in the defence industries, where equipment is expected to have a long-life and is likely to be miniaturised more than consumer products. So, while in one sector of the electronics industry the phrase 'lead-free solder' is an unquestioned 'good', in another sector it may not be, and this requires circumspect use of the lead-free solder and hence use of the phrase.

Activity 3

Bearing in mind that a final vocabulary provides terms that act as surrogates for 'good' or 'bad', have a think about your own way of evaluating things. Can you think of some terms you use in your professional life in lieu of 'good' and 'bad'? What about rules of thumb you may use routinely?

I would add to Rorty's list of thin terms a number of derivatives of 'good' and 'bad', including 'efficient', 'beneficial', 'optimal' or 'faulty'. To the list of parochial terms I would add 'sustainable', 'low-cost', 'modern' and 'natural'.

Of course, your final vocabulary does not have to coincide with anyone else's, and the equation with 'good' or 'bad' might be different for different people. Words like 'progress', 'modern' or 'profit' might be used to indicate unalloyed 'good' for some while raising hackles in others. Thus, for some, 'miniaturisation' becomes a self-

defining goal, and, for others, ‘complexity’ is inevitably ‘bad’. ‘Digital’ is frequently seen as a sign of unquestioned ‘goodness’.

1.7 Ideology

The notions of a final vocabulary and that of ideology are closely related. Anthony Giddens defined ideology as ‘shared ideas or beliefs which serve to justify the interests of dominant groups’ (Giddens, 2006, p. 1020). There are all sorts of problems with this definition. One difficulty, for example, is that ideas and beliefs, if they have any kind of existence, are hidden away and have to be inferred by what people do and say. Another difficulty surrounds exactly how these things can be shared. Rorty, to some extent, avoids these issues by referring to word use that can be directly experienced by observers or listeners who then have some evidence enabling them to draw conclusions about the common word usage amongst a group. What Rorty cannot do, though, is to provide a way of identifying whether or not a word is decisively part of a final vocabulary.

To illustrate this, let's look at another example taken from Shaw's *Major Barbara.* The main character states he will abide by ‘the faith of the armourer’, which, he says, is ‘to give arms to all men who offer an honest price for them, without respect of persons or principles’. The root of good reasons for selling arms is then solely based on an ‘honest price’. His successor proposes a different creed and asserts ‘I shall sell cannons to whom I please and refuse them to whom I please’. Subtly this alters things and makes ‘pleasing the armourer’ the foundation of the reasons for selling arms.

So various technologies might have ideologies identified as expressed in the final vocabularies and rules that the technologists in the field share. Many of these premises about what qualifies as ‘good’ and ‘bad’ outcomes shift with changes in technology, so engineers need to be alert to avoid being trapped in a tradition that can no longer justify its maxims.

Example 6: Number of transistors in electronics design

In the electronics industry it used to be desirable to minimise the number of transistors in a design. For many designers this was accepted as an unquestionable rule. Others may have questioned the rule but would have gone on to support it when it was expressed in terms of costs and reliability. But now, with improved manufacture and millions of transistors on a chip, this is no longer the imperative it once was, and that can only be revealed by treating the rule as something to be analysed rather than obeyed. One of the things that ethicists can do is to look at the rules that people use and see if they can be broken down or analysed. This sounds like a call to question everything but, of course, unbounded questioning does not get things done, and we have to accept that to get things done we have to limit our questioning and mainlly get on with the vocabulary we have. Delay, itself, can have bad consequences.

One thing that the study of ethics investigates are the consequences of adopting a particular final vocabulary or ideology, and sometimes showing how it can be analysed or broken down into other terms. Often, when you look into texts on ethics, the final vocabulary is reduced to terms like ‘pleasure’ and ‘pain’, ‘duties’ or, perhaps, ‘virtues’ and

'vices'. The final vocabulary in technology development is more often than not reduced to financial terms ('money') or to a set of quantified 'risks'. But if you try and reduce it in this way, there are always things that will be missed out, and of course one of the dangers of ideologies is that important things are ignored.

Activity 4

You might like to read John Monk's text 'Risk is not Ethics', available by clicking the link below. The penultimate paragraph points out that people with different interests will have different views on how to apply the word 'risk'. A contrast is bound to arise when a product or service provider and the user assess 'risk'. Indeed, a service or product user may shy away from using the term 'risk' since it implies 'bad' consequences are possible.

Risk is not Ethics

Just to round off this section, I thought it would be worth mentioning that ethicists have developed a shared (even if the meanings are contested) terminology to categorise and deal with issues within the remit of their studies. Box 2 presents some of the basic terms you will find in academic texts on ethics, and I have included them here just to give you a flavour of what you will find if you follow up on an academic route.

Box 2: Some terminology

Deontological: related to the 'rightness' or 'wrongness' of actions, often expressed as duties such as the 'duty of care' that we might expect a factory manager would have towards factory workers.

Consequentialism: related to setting store by outcomes, however they are achieved.

Virtue ethics: concerns the formation of 'good' character and presumes 'good' people will bring about 'good' things.

Utilitarianism: concerned with maximising utility, which has been interpreted as maximising 'happiness' or 'pleasure'. 'Cost-benefit' is consistent with this, but it expresses value in monetary terms.

1.8 'Ethics', 'ethical' and authority

There is some confusion over the uses of the terms 'ethical' and 'ethics'. Often people use the adjective 'ethical' to signal things that they would expect virtuous people to do. That is they use the word 'ethical' instead of 'good'. Companies, institutions and even governments might claim to have 'ethical' policies. Probably such a policy declares the ideology. For example, saying that 'sustainability is ethical' may be part of an individual's ethic but it is a tautology that is not an essential part of ethics.

Ethics commonly addresses the synthesis of people's feelings, attitudes, premises and ideologies and provides a critique of those things. Ethics cannot give instructions on what final vocabulary to adopt, how reasons should be formed or how to judge the rightness of a conclusion. As such ethics can be a source of frustration when the ethicist shows how a range of different conclusions might be reached by adopting different stances or forms of

argument. Ethics is not about ‘getting an ethic’ – being comfortable with the evaluations of fellow professionals – but about recognising that different people will evaluate things in different ways and assess collections of ‘goods’ and ‘bads’ in different ways.

It is also important to clarify the difference between evaluation and decision making. Ethics is not concerned with decision making, whether personal or involving others where clashes of view may occur. Decisions come after we make judgements. A decision is a commitment to act, and before you make the commitment, you engage in judgement. Judgement is something I consider to be a part of ethics; decisions come at the tail-end of ethics. However, people tend to get a sense of security when they adopt ethical assumptions, but ethical analysis is likely to show that all kinds of assumptions are not as secure as we might think. A while ago, a colleague of mine called in an ethicist to help with a decision in a bio-engineering project, and all the ethicist did was to point out that there were half a dozen positions that could be used, each resulting in a different judgement about potential actions. The point is this: the study of ethics and engagement with ethics doesn't necessarily help arriving at decisions, although ethical analysis does encourage people to think more carefully about the decisions they make.

As I have already mentioned, people use past experience to help them to evaluate how others make decisions and justify what they subsequently do, and how these contribute to the perceived authority of individuals (or groups). This can certainly lead to a degree of polarisation when you have a number of groups each with their own final vocabulary. We indeed live in a polarised world of specialist groups. Expert communities establish their authority partly by developing their justifications in terms of their idiosyncratic final vocabularies. One important message from ethics is that from time to time we need to question what the experts are saying, that is challenge justifications that are expressed in a final vocabulary sustained only through habit within the closed expert community.

Activity 5

In Box 3 you'll find an excerpt from a TV Set User's Manual. Although this appears a fairly mundane piece of text, it provides an ethical argument. In what ways can this be the case?

Box 3: Excerpt from TV Set User's Manual

Your TV consumes energy in the stand by mode.

Energy consumption contributes to air and water pollution.

We advise to [sic] switch off your TV overnight instead of leaving it on stand by.

You save energy and the picture tube is demagnetised which maintains good picture quality.

To examine this question we need to look at the way in which the text is put together. First of all, the manual says that the TV consumes energy in the standby mode, which is an authoritative assertion: have to believe that. Then it goes on to say that energy consumption contributes to air and water pollution. There is a theory at work here: that energy consumption contributes to air and water pollution, which someone has worked out, presumably. I may know that theory or I may accept that theory, but it's making the link between the first statement about consuming energy, through energy consumption, to water pollution. So it seems from that argument that my TV in standby mode creates pollution, and maybe pollution is part of my final vocabulary and I think pollution is a bad thing. So there's an ideological implication there.

What follows is some practical action. It says ‘we advise (you) to switch off your TV overnight instead of leaving it on’. In other words, not only is there an ethical argument there, but there's a hint about practical action. If you don't accept that, the authors try another line. They say you save energy. So they sound as though they're expecting you to say ‘oh, that's good, I think saving energy is good’, or ‘I think avoiding pollution is good, saving energy is good’. And if I'm not convinced by that, they tackle another angle. They go on to say, indirectly, that when you turn the TV off the screen is demagnetised and you get a good picture as a result.

In short, the first statement in the excerpt is an authoritative assertion, then there's a bit of theory and an ideological implication which says I'll get pollution. This is followed by advice on practical action and, then, actually two more statements that appeal to my sense of ‘goodness’. There it is: an ethical argument in a technological context and, of all places, in a TV user manual!

In a way this statement appears rather odd because it was in the user manual provided by the maker of a television, not a power company or the government. So why did they, in a TV manual, talk about pollution? I guess they imagined you would think it was a ‘bad’ thing, but not everybody is going to agree that pollution is a bad thing. Also, not everybody will know exactly what is meant here by pollution, or they might not be convinced how it happens. Nor were the people who wrote the manual, or so it seems, because they add further lines of argument, as I explained above, ‘you save energy’ or ‘you get a good picture’, as they are trying to appeal to people's different senses of value.

And, of course, you might say that a more persuasive argument, and one you know that works, is that if you turn your television off at night it saves you money, and irrespective of what people feel about pollution, energy, water, they will more than likely respond to arguments which describe outcomes with financial consequences. So, if I can say it saves you cash, you may be more easily persuaded to turn your television off. Even though people do value their money, would such a statement constitute an ethical argument? The difficulty here is subtle. If you tell people to turn their television off and it'll save them money, you're making just an ideological assertion. There are no justifications in this claim, there isn't really a complete argument because there are missing elements. Steps in an argument might be ‘turn your TV off’, ‘that reduces energy consumption’, ‘energy costs money’, ‘you'll save money’. Alternatively, you can avoid presenting an argument and present yourself as an authority. If you present yourself as an authority, then, of course, to be effective others must accept your authority in the matter.

1.9 Final vocabularies in context

As I discussed earlier, there are different ways of looking at things and valuing them, as there are different kinds of things we value. I also suggested that you might, in your arguments, try and value reasons: are they ‘good’ reasons for doing things? We might also be concerned with outcomes, but because outcomes require a route to achieving them, the means or process also needs to be assessed. As we'll see in the next section, Socrates says, in the Platonic dialogues, you might take a medicine that tastes bad in order to get better. In this case you have an ethic that admits a not-so-good means to achieve a desired end. This illustrates the issue that you might want to look for ‘good’ means and ‘good’ ends, but in some instances an ethic might accommodate an unpleasant means as long as the outcome is ‘good’.

And so these different things, reasons, means, ends, the agents, the people that are doing the work, or combinations of these things, all of these are worthy of consideration in ethics, and these are things we will be looking at throughout this course. However, this type analysis doesn't answer certain kinds of questions. For example, I introduced and began exploring the concept of final vocabularies, but I did not mention that the same final vocabulary may be put to very different uses. Sometimes people use words in very different situations and to very different effects. Take the words ‘modern’ and ‘sustainable’, for example. People using the word ‘sustainable’ might have quite different views on what ‘sustainable’ is; some people may think is relates to keeping things as they are, which means they are adopting a conservative view, whilst others may take ‘sustainable’ in a sense of ‘changing things so that they become sustainable’. The latter is a radical rather than a conservative view.

So, because different people may be using final vocabulary in different ways, it is important to focus on the *use* of this vocabulary. Take the term ‘risk’, for example. For a professional, ‘risk’ is often a matter of degree, a numerical probability associated with a particular outcome. On the other hand, for individuals, ‘risk’ actually reveals a possibility. The debate in the United Kingdom surrounding the MMR vaccine illustrates this difference quite well. Specialists say that there is a very low ‘risk’ to a child, which is acceptable from a professional perspective, but as far as parents are concerned, ‘risk’ means that there is a possibility of a problem. Specialists and parents, therefore, are using the same word in subtly different ways.

Crucial to these differences in interpretation are the differences in the relationships at play. For the government specialist concerned with vaccination in his or her professional role the relationships are with the population as a whole and the aggregate good. For the parent, the relationship is with the individual child.

The form of relationships with other people not only shape our ethical arguments but personal relationships (including self-interest) are things people value. In considering outcomes and means are we concerned about individuals or are we considering a wider community? If we are thinking about, let's say, wealth, are we talking about the wealth of individuals or the wealth of the community as being important? But also changes in relationships for the better or worse may itself be an outcome. I will return to the question of relationships later in the course.

I hope the previous activity highlighted that ethical statements tend to be fairly complex things, even if, on a first look, the argumentation itself may appear mundane. In other words, it is not only the evaluation of ‘good’ and ‘bad’ that needs to interest us here, but also the way in which the argument or justification is articulated (as well as the context in which it appears). To close this section I would like to propose an activity that asks you to

engage with some audio-visual material. Although this format allows for very different ways of putting across an argument, this gives you another example of how a fairly short argument can indeed conceal a lot of complexity once it begins to be unpacked.

Activity 6

Watch John Monk's short video snippet *Ethics.* If you are reading this course as an ebook, you can access the video here: Ethics. Watch the video once and immediately afterwards jot down some brief notes about:

a. the ‘goods’ and ‘bads’ that are considered relevant in each option mentioned;
b. the essential differences between the options;
c. how you feel about each option;
d. the style of presentation of the options.

Look at it again if you want to, but do not modify your notes. Instead, if you think your earlier impression was misguided, make a second set of notes and compare them. Can you make some observations on the final vocabulary used?

You can find a transcript of the video snippet by clicking the link below.

John Monk's *'Ethics'*

The video explains that a system that might pepper the countryside offering wireless communication would cause visual intrusions, and it also introduces worries about exposure to radiation. The technologists planning such a system has choices: lots of short masts introducing lots of minor visual intrusions and operating at low radiation levels; fewer tall masts which are more visually intrusive and require higher radiation levels. Also, a few small masts are not out of the question, but power levels would have to be increased.

The final vocabulary appears to include the terms ‘visual intrusion’ and ‘radiation’. There are many other factors that should be brought in, including the ‘effectiveness’ of communication. Some choices don't involve only technical matters. When it comes to radiation, for example, dangers to health have not been demonstrated for lower levels, but people may be fearful, and fear is also harmful and discomforting. Should the discomfort and fear be something the technologist needs to consider in examining the acceptability of a design? The answer to that is probably yes. Indeed, some technologies, like weapons and fairground rides gain their effectiveness through ‘shock and awe’. Another important aspect of the video is that it relies on the authority of the speaker alone, that is, there are no references to other views, opinions or (assumed) facts related by others.

As you will have seen earlier in the course, a trial course was run in 2008 with volunteer participants from amongst OpenLearn users, and the *Ethics* video generated a particularly lively conversation within the group. The next activity gives you an opportunity to listen to what the group had to say.

Activity 7

Watch the video snippet below, which presents a discussion of the *Ethics* video carried out by participants in the 2008 trial. Please be aware that the quality of the video and

audio varies as it was recorded as a Flash Meeting and was therefore dependent on the equipment and connection speeds of the individual participants.

Video content is not available in this format.
Discussion 1

1.10 The story so far

Ethics is about ‘good’ and ‘bad’, but these terms are indefinable. In practice, there are alternative forms of justifications that can cause differences and disagreements. Other causes of differences are the terms in the final vocabulary of different individuals, and these final vocabularies have two aspects. Some terms that have wider use, terms related to ‘good’ and ‘bad’, like ‘optimal’, ‘beneficial’, ‘detrimental’ and ‘useless’. Others are more parochial substitutes, terms like ‘modern’, ‘digital, ‘low-power’, perhaps more related to technology. Effectively there are things that we value and label with these terms from our final vocabulary, and combined them in ethical arguments to support ethical claims. In this manner we can have statements with complicated implications, like ‘nuclear power is good’ or ‘nuclear power is bad’, that might be analysed to ultimately, connect up with a parochial final vocabulary. So another way of looking at ethics is to say that it's about this kind of analysis, it's a way of evaluating things and providing justifications, or reasons, for the values we attribute. However, in many cases we have feelings about how valuable things are and those feelings will precede or even override any rationale. Importantly, emotions play an essential part in our ethical considerations, for instance, they play a role in determining the value we place on personal relationships and hence, in an ethical context, who we might accept as an authority in particular situations.

2 It's not all Greek to me!

2.1 Introduction

The first section introduced some basic ideas and vocabulary to get you started on thinking about ethics and ethical questions. In this section I would like to start using those ideas and vocabulary to tackle some examples taken from a selection of dialogues.

One of my reasons for focusing on dialogue is that dialogue is a written form of conversation. A crucial point about conversations is that they do not have to be logical. If a conversation comes to a halt, then someone starts on a new topic. In a conversation people can exaggerate: there's a rhetorical element to it. When dealing with ethical matters you cannot avoid the influence of your feelings, in the way you express things and in the nature of your argument. We might like to think that when we're working out what is ‘right’ and what is ‘wrong’, ‘good’ or ‘bad’, we are being ‘logical’, but experience shows that this is rarely the case. Irrationality, the effects of our emotions, slips into the judgements we make. Indeed, it's interesting we use the word ‘judgement’ rather than ‘logic’, because ‘judgement’ seems to imply that we somehow extrapolate from incomplete evidence, possibly from rather dubious sources. In other words, you have your dubious, incomplete evidence, so what you're stuck with is not drawing a ‘good’ conclusion but making a ‘judgement’. Logic may be helpful but maybe inadequate in the face of uncertainty.

Therefore, one of the reasons for my using dialogue as the source of material is to actually reinforce this point.

I have selected for you some extracts from three of Plato's dialogues: *Protagoras*, *Meno* and *Gorgias*. Plato's dialogues are quite extensive and deal with a number of complex issues, but these three particular dialogues are specifically about ethics. Indeed, these dialogues constitute three essential texts in any study of ethics and are really worth engaging with, if you are interested in the area. I will ask you to look at some extracts not only to get a feel for what the Greeks said about ethical matters, but also to introduce you to different kinds of dialogue. *Protagoras*, for example, uses a device for putting across the argument that is very different from what is done in the other two texts, which are very much like plays. As I said earlier, I'm interested in exploring not only on the ethical matters, but also how these matters are presented, and these dialogues provide an excellent starting point for this exploration. Once you read the texts you may come to agree with me (or not!) that (the character) Socrates is a bit of a ‘bully’, and you may also wonder whether actually there is dialogue at all. Indeed, it is worth noting at this point that there are some quite considerable critiques of Plato available (see, for example, Bruno Latour's *Pandora's Hope*, pp. 216–265).

As you may know, Plato and Socrates were two Ancient Greek philosophers. What little remains from Socrates’ thinking, however, is available through surviving texts written by his students, including Plato. In Plato's dialogues Socrates appears as a central character, but it is not entirely clear to us whether the words spoken by Socrates in these dialogues were indeed part of his teachings or, perhaps more likely, Plato's interpretations. In other words, although Socrates is the person who does most of the talking in the dialogues, he is, indeed, a fictional character. Click on the links if you are interested in reading more about Plato and Socrates. The OpenLearn course AS208_1: Europe's

awakening will also tell you a little about these philosophers whilst putting their legacy within the context of European cultural development.

Although the dialogues were written over two thousand years ago, they are relatively approachable even if they present intricate arguments (and some are fairly long). Translations of Plato's dialogues are accessible online at sites of projects that are making copyright-free texts openly available, for example, the Project Gutenberg or the Perseus Digital Library. These sites, however, offer fairly old translations in formats that are not particularly reader-friendly. So, if you would like to read the dialogues in their entirety, I would recommend a more recent, possibly annotated, translation in print, which makes things easier to follow. For your study of this course, however, I am recommending that you read some specially prepared versions (which you can download directly from this course in the relevant activities) that contain annotations and highlighting to indicate the passages you need to read. I have tried to select representative parts of the dialogues to allow for discussion of the main ideas they contain as well as their shape in terms of how arguments are put together.

2.2 Three Greek dialogues

Activity 8

Read the excerpts of Plato's *Protagoras* highlighted in the version attached below. Jot down a few ideas about the final vocabulary that Socrates uses in the dialogue.

Protagoras

Comments

Socrates talks about ‘good’ and ‘bad’ linking these to ‘pleasure’ and ‘pain’, respectively, so the final vocabulary that Socrates is talking about in *Protagoras* is ‘pleasure’ and ‘pain’. The extracts I chose from the dialogue try to establish ‘pleasure’ and ‘pain’ as the only two terms needed for ethical deliberation. Nevertheless, Socrates concedes that there are degrees of ‘pleasure and ‘pain’, and he also accepts that our perception is affected by the distance from the experience.

It is also interesting to note that *Protagoras* is, indeed, a report of a conversation rather than a transcribed dialogue. Consequently, it looks much more like a novel than a play.

An interesting point that Socrates makes is that, if we're going to weigh up the ‘pleasures’ and ‘pains’, we need to be ‘scientific’ (although he did not use this word, which is a nineteenth-century European construct). Because sometimes ‘pleasure’ is in the distance and ‘pain’ is in the present, things may look more like the medicine or the physiotherapy treatment that may be painful but achieves ‘good’ in the end. He claims that, if we're going to assess things of different kinds, then we need some kind of measurement. He indeed says that it is rather important to have measurement. Unfortunately, he never gets around to telling us how we set about measuring things, and this provides a background to some of the other dialogues. The assumption is that what we need to do is to measure the ‘goods’ and the ‘bads’, as in a scientific-like procedure, but he doesn't give us a method. In the end he suggests that, when we make a decision, then we will basically choose the ‘lesser evil’.

Although I used the term ‘scientific’, I did it with great care and a note. Word choice is a potentially problematic issue with these dialogues, which have been repeatedly translated from primary and secondary sources. For example, we might be tempted to assume that Socrates, who begins by weighing up the balance of ‘good’ and ‘evil’ and ends up weighing up ‘pleasure’ and ‘pain’, might be referring directly to emotions, that is, more human and immediate ‘things’ that may be relatively easier to weigh up. Although emotions are an essential element of judgements and decision making in my understanding (and I will discuss this later in more detail), that is not an appropriate way of approaching the Socrates in Plato's dialogues.

Activity 9

Read the excerpts of Plato's *Meno* highlighted in the version attached below. Jot down a few ideas about the final vocabulary that Socrates uses in the dialogue.

Meno

Comments

Meno is about ‘virtue’, and Meno himself says, ‘Socrates, tell me what it's all about, what's this virtue stuff and can you teach it?’ In the end, Socrates says, ‘Well, we don't really know what it is, but we do know it can't be taught because virtue is not knowledge.’ Socrates assumes that, if it can be taught, it is knowledge. Virtue is not knowledge and, therefore, can't be taught. Virtue is something like an opinion, like the divinations provided by people in the temple. They get divine inspiration and come up with a statement which is a ‘true opinion’, and he says that you can't teach it, but some people are inspired and can give it. Socrates uses the term ‘true opinion’ but doesn't really tell us how we would identify that. He uses politicians as examples and argues that knowledge cannot guide politics and good politicians cannot teach others. Good politicians, he asserts, are like others who guide with no knowledge, and that makes them ‘divine’. Virtue, it seems, is possessed by those who have ‘good opinions’, but by the end of the dialogue we do not know what virtue is or how those opinions are acquired.

Of course, this is all highly problematic. Although Socrates might say that ‘virtue’ can't be taught, you might claim that, perhaps, it can be learnt, learnt in the sense that you can learn from your mistakes, you can learn to do better. Perhaps you will not be convinced that what he was talking about was not knowledge, and, so you will not be convinced that it cannot be taught. Before I discuss this further, I would like you to tackle Activity 10, which asks you to read some excerpts from the last chosen dialogue, *Gorgias*.

Activity 10

Read the excerpts of Plato's *Gorgias* highlighted in the version attached below. Jot down a few ideas about the final vocabulary that Socrates uses in the dialogue

Gorgias

Comments

In this dialogue Socrates is trying to dismiss the claims of Gorgias, the speechmaker, that he can persuade anybody of anything. It is interesting that, in the end, Gorgias

walks off, as though he's fed up with talking with Socrates, who is then left talking to Callicles. Callicles is a youngster, and what it seems to me is that at the end of the dialogue Socrates is telling Callicles how to lead a 'good' life. In other words, it sounds as though Socrates is actually trying to teach 'virtue'! It does seem that he's trying to turn Callicles into a 'virtuous' person by presenting all sorts of formulae. In *Gorgias* Socrates focuses on the individual and on instructing the individual on how to lead a better life. I think the dialogue should be looked at as a way of helping people to become more virtuous. In this sense, Socrates puts himself in the role we might think of as a parent instructing a son or daughter on how to lead a 'virtuous' life.

Although in one dialogue Socrates is saying that virtue cannot be taught, it would seem that in another he is actually trying to teach it! An interesting aspect of *Gorgias* is that, when Socrates dismisses Gorgias and his art, he is saying that the ability to address a crowd is not really important. 'The need to act when opportunity arises not so important, the need to explain succinctly and express using lay language, no that's not important.' Socrates is actually dismissing all the things that are really rather important if you are in the business of politics. The trouble with this is that technology developers can be adventurous, but to be successful they must identify themselves with the constituency in which they hope their product will become the popular choice. They will have to take lessons from Gorgias rather than Socrates and tell their stories in the most compelling way they can. They need to inject their proposals for a project into people's self-image and will need the public arts to portray their vision and gauge the public reaction.

Socrates dismissed the public arts as being on a par with pandering to people's want of immediate gratification rather than accepting a degree of pain for the long-term 'good'. Putting this within the context of technology, Socrates' view requires you to have the knowledge to help you see the longer term; for instance, that a product may in the long term give you a waste disposal problem. Socrates seems to want decisions and the conclusions of arguments postponed until every scrap of knowledge essential to the argument has been found. This approach poses difficulties for the technology developer who is part of a technological enterprise who needs to persuade colleagues (other technologists, managers, accountants, etc.) and, perhaps, investors, and who is given limited time and limited opportunities to do so and, hence, has to focus on being persuasive and succinct while using the limited knowledge available. Socrates seems to be seeking an unachievable ideal that does act as a reminder that in practice our arguments are restricted and insecure and thus always vulnerable and potential ojects for critics.

However, we would expect the developer who does present a proposal to have thoroughly investigated their proposition and be conscious of their competence to do so. In *Gorgias* Socrates refers to the doctors as experts and, interestingly, presumes that a skill they have is to convince people. The technologists that Socrates hints at are worthy people, but they do not make a fuss about it. Socrates' reasoning is that the engineers can provide, for example, city defences for people but that does not change the people and the defences will equally defend the good and the villains. So because engineers cannot boast about improving the people they serve, they go modestly about their business (see *Gorgias* 512b).

So we might try to connect up the threads gathered so far from the three dialogues by saying that Socrates might expect the technologist, like all people, to strive to be 'virtuous', and this is a lifetime's quest. In the meantime, in their professional setting they

should be knowledgeable, able to justify their proposals at least to their fellow professionals and be able to convince others.

The question of who represents your audience is crucial in presenting any argument or case, as you will know from your own experience (for example, in writing an email to a friend, writing a job application or completing a university assignment). When you look at Socrates' arguments about what he is trying to do when talking to Callicles, he does actually sound quite like a parent in that he's actually trying to get Callicles to think about the 'right' ways to do things. He is talking directly to Callicles and he does not want to talk to a crowd. This is a bit misleading because at various points in the dialogue there are references to an audience who, at some stage, applaud what Socrates is saying. So, whilst he is implying that he only wants to deal with individuals, he's actually got a big audience. If you are a technology developer or designer in a big organisation, I think you need to be a little bit careful about Socrates' approach.

2.3 Style and rhetoric

In the dialogues in Section 2.2, Plato, the author, is trying to point out convincingly the features of a 'virtuous' life and, therefore, offers templates for presenting a case with an ethical content.

In looking at the style of the dialogues, most of *Protagoras* is in the form of a narrative similar to something you might find in a novel, as I suggested earlier. *Meno* is much more like a play script, but it is noticeable that Meno (the character) mostly agrees with what Socrates has to say, so the dialogue is much more like a monologue. This suggests an interesting question: what does the choice of a dialogue format add? One possible answer is this: if Meno is respected by those around him, then, when he agrees, he gives authority to Socrates' words. This is a device you might use when presenting an argument, to actually somehow or other call in the agreement of others. Of course, academics do that all the time by referring to other people that agree with their point of view in their argument, whilst probably not referring, although perhaps they ought to, to those that disagree.

Socrates in *Gorgias* purports to challenge the importance given to rhetoric, but does offer useful examples. The dialogue uses cooks and doctors as analogies of the rhetorician or the 'virtuous', and analogies are very cunning devices. Analogies shift the argument to domains where agreement over 'good' and 'bad' may be more widely accepted. In the analogous domain a secure conclusion can be established before returning to the original domain, where otherwise things would not be so clear-cut. Stories and quotations in the dialogues similarly deflect and grip the reader's attention as well as bringing in additional authorities in support. It is interesting to note, though, that *Gorgias*, like *Meno*, eventually slips into a monologue.

The use of devices such as these can be seen in two ways. Sometimes you might use those devices to try and help with understanding, for example, to give a different perspective or illustrate the form of an argument if you're in a teaching situation. Or if sections of an argument are weak switching to an analogy might obscure weaknesses and obscure rather than enlighten. It is possible to use some of the Socratic techniques to brow-beat, wear opponents down, just to exhaust them so finally they'll forget or feel insecure about their objections and, bewildered, agree with what the protagonist is saying.

Another technique that Socrates uses is contradiction. He leads people down the garden path, seeking out contradictions in their position and then, as a result, quashes their

argument. The dialogic form helps with this because dialogue is a bit like a conversation, and the crucial thing is that it continues and it doesn't matter if the subject is changed. So the dialogues enable Plato, the writer, to present bits of arguments and to show that there are contradictions, and then move on to something else. But contradiction is really rather crucial to this method of arguing. To make this clear, let's look at what Ludwig Wittgenstein, a philosopher who considered contradiction useful, had to say:

> Let us suppose that a contradiction … produces astonishment and indecision … we say; that is just the purpose of [this] contradiction.
>
> (*Wittgenstein, 1956, Part III § 57*)

In this quote Wittgenstein is basically saying that contradictions are purposely intended to produce astonishment and indecision. That's the point of a contradiction: you actually want to astonish people. Perhaps you want to produce an effect, or achieve a particular result. Wittgenstein's view of language is quite different from the usual notion that language is representational, that is, that words are spoken equivalents of things that are observed in the world. Wittgenstein has a very different idea of what language is and how it works – he talks in terms of 'language games'. When writing about contradiction he notes:

> We lay down the rules, a technique, for a game, and then when we follow them things do not turn out as we had assumed.
>
> (*Wittgenstein, 1992 p. 125*)

He suggests we adopt the rules for these games (or perhaps develop a habit), such as the rules Socrates lays down for logic, but when we encounter a contradiction, it is as though following the rules caused us to break the rules and things don't turn out as we'd hoped. Hence he finds contradictions interesting and might cause us to explore extensions of our language game. Alternatively we might treat this production of astonishment in others as the objective of a language game. Contradictions may therefore be deliberately exploited for effect, or they may signal where we need to provide extensions to our language game. Contradiction according to Wittgenstein is useful but for Socrates it would have been corrosive. Socrates sees contradiction as the end of the matter, that is, a contradiction signals that a line of argument is unsustainable.

Wittgenstein's view creates a new way of thinking about language because language becomes a collection of ways of providing gestures that have useful effects. The OpenLearn units D843_1: Themes in discourse research: the case of Diana and AA308_3: Language and Thought: introducing representation explore these non-representational views of language in different domains and may be of interest, but for the purposes of this course, just think about language as providing effects rather than carrying meaning. Of course, having an effect is very useful for a technologist trying to get something done, and it also suggests that Socratic logic is not the only form of logic that people might happily use.

2.4 Relationships and conduct

Socratic dialogues tend to involve Socrates and just one significant interlocutor at a time. In practice, we have networks of relationships, all of which we value in different ways and which are sustained by conversations that extend over different and long sequences of encounters. Crucially, the actions we take and the conversations we have change those

relationships and the value we attribute to them. Therefore, ‘relationships’ constitute yet another thing that we need to look at, something we should be aware of when analysing ethical argument. A dialogue with two parties can be instructive in showing how different relationships can impose constraints on one another as self-interest rubs against a relationship with an interlocutor. However, more parties have to be brought into a discussion to illustrate some of the effects of how a variety of relationships affect the argument and how it evolves since relationships also have a temporal dimension, and different parts of our networks develop at different rates and at different times.

In Arthur Miller's play *All My Sons* (click for a synopsis), Joe has an engineering company that manufactures cylinder blocks for aircraft engines, and a faulty batch was installed in planes that crashed in action. Steve, Joe's deputy manager, is wrongly imprisoned because Joe lies. Joe claims he was in bed when these faulty blocks were despatched. Later in the play Joe's loyal wife innocently remarks that ‘Joe hasn't been laid up in fifteen years’ and, of course, his mendacity, his lie, is noted. By then, however, his deputy manager has already been imprisoned for some time before being released. Joe is then faced with having to justify his behaviour, but he has relationships with his neighbours, with his wife, with his children, all of which were disrupted by the discovery of his deception, so he wants to restore those relationships. And he has a defence. His defence is that he was owed a favour, since in the past he acted dishonestly to bail out Steve.

There is an element of logic in this defence. Joe assumes that doing something dishonest that is beneficial for someone else should accrue a credit that can be spent on doing dishonest things for your own benefit. Although this may be dubious, he's attempting to justify his position, at least to himself, and restore his collapsing relationships with others. But, others cannot accept his logic and, in fact, attempting to present his case undermines valued relationships and worsens the tragedy. *All My Sons* is an example of a play which has a number of characters and a number of relationshipsthat is worth studying from an ethical point of view.

Another excellent example of a play in which you have a number of relationships is Sophocles’ *Antigone* (click for a synopsis). In the play Creon rules the city of Thebes, and his nephew dies as a rebel, a renegade fighting against the city. Antigone is Creon's niece, and she wishes to give her brother an honourable burial, but Creon objects since her brother was the city's adversary, and citizens of Thebes didn't bury their enemies. But Antigone wants to bury her brother to honour him, and eventually she does. Creon, outraged by her dismissal of the city's rules, orders a punishment that leads to her death and further tragedy for the whole family.

Tragedy arises because Creon is stubborn and sticks to the rules of the city, and Antigone is stubborn and sticks to the rules of honour of the family. Each has evaluated the situation in different ways. In a way, the two rules that they were using – ‘to obey the laws of the city’ and ‘to honour the family’ – are two perfectly understandable rules, but the situation is such that a conflict occurs. Antigaone says, ‘I'll do my duty to my brother’ and Antigone's sister says, ‘Has Creon not expressly banned that act?’ Such conflicts and dilemmas, of course, are at the heart of ethical analysis. The play *Antigone* shows that following well-intentioned rules does not necessarily avoid situations that can be resolved through argument alone. The tragedy could only be avoided by Antigone or Creon showing some humility and accepting each other's good intentions.

Another play where there are some interesting things mentioned about rules that don't work, is David Hare's play *The Permanent Way* (click for a synopsis). The play is a docudrama about the British railways. Characters in the opening talk about the poor performance of Britain's engineered infrastructures and turn it into an ethical issue by

saying there's something wrong with the British way of life. The characters in the play attribute the failings to a lack of practical intelligence amongst the British people and a lack of know-how, which turns ‘know-how’ and ‘practical intelligence’ into wrongly neglected ‘goods’ in the British ethical constellation. So know-how seems to have become a ‘good’, something that I think Socrates would agree with. Later on, the play deals with a number of accidents that occurred on the railways, a number of incidents where there were fatalities. In one scene the policeman in charge of dealing with the accident comments on the insensitivity of the procedural manual towards the bereaved. Because of that he rejected the procedural manual and later he rewrote it. So here we have a code, a perfectly good code that people wrote in good faith, that has been rejected, because the people who wrote the manual couldn't imagine the situation in which it was going to be used. The trouble is that, although we do have codes and laws, it seems that there are situations when the previously written rules seem out of place and we might think it is ‘right’ to breach the written code.

This possibility that there are situations when breaching a code may actually be the ‘right’ thing to do raises problems for professionals and the institutions that regulate their practice. Professional institutions have responsibility for regulating the professions, and most of them publish codes of conduct. Take the American Institution of Electronic and Electrical Engineers (IEEE); here is an extract from their code of conduct, interestingly titled Code of Ethics: ‘It's the duty of an engineer to avoid real or perceived conflicts of interest whenever possible.’ That presents ethics as a search for a solution to the problem of finding projects that avoid conflict. Consequently, it sounds as though what engineers ought to do is to find projects that avoid conflict. Of course, this immediately prompts the question of whether conflicts of interest, real or perceived, can be avoided or even detected.

In fact, rules such as this are a gift to the dramatist. Take, for example, these two extracts from the Engineering Council UK Statement of Ethical Principles, which talks about things that engineers should do: ‘hold paramount the health and safety of others’ and ‘reject bribery or improper influence’. If I were a dramatist, I'd say ‘oh, this looks good, I'll write a play about this. I'll write a play about someone who is injured because bribery is rejected.’ You can see that these rules can be brought into conflict with one another.

Let me give you another example, this time taken from an earlier version of the Institution of Engineering and Technology (IET) *Rules of Conduct*. One rule stated that ‘members who become aware, or have reasonable grounds for believing, that another member is engaged in conduct or has engaged in conduct which is in breach of the Code of Conduct **shall inform** the Institution in writing of that belief.’ On the other hand, Rule 19 stated that ‘members shall **not** without proper authority **disclose** any confidential information concerning the business of their employer or any past employer.’ So, whilst people were asked to inform an institution if something was going on in their company that shouldn't be going on, they were also told they shouldn't disclose any confidential information, and it is fairly easy to invent a situation where informing on what's been going on discloses confidential information. So although codes of conduct are presented to try and clear things up, there are situations, and as Antigone in the play *Antigone* illustrates, where one rule is set against another and the set of rules carries potential contradictions.

Activity 11

The link below will take you to a list of codes of conduct from around the world covering a variety of different areas and professions:

- Codes of Conduct/Practice/Ethics from Around the World

You might like to choose an example from the list and try to create a situation where one rule is set against another.

If we have these conflicts or potential conflicts and the rules don't help or people are adopting or adhering to different rules, then a way out that avoids coercion is negotiation. It seems that the antagonists possibly including a technology developer in opposition to a professional in another field must compromise. To make a proposal acceptable they need confidence and, therefore, a rational basis for their case. On the other hand, that case will need to be simplified, abbreviated and translated into terms that other professionals find acceptable. Without the time or an audience that can cope with technical details, the developer has to find other ways of convincing others in a different manner to that they would use in persuading a professional in his or her own field. The skills of Gorgias offer a solution since the goal is not to provide a watertight logical case, but to instill conviction in each of the negotiators about the course of action.

In spite of Socrates' assertions about rhetoric, problems of dealing with a crowd and the need for a lifetime of knowledge, the Socratic dialogues provide many examples of rhetorical devices that would grip a crowd. These include the use of allegories and analogies, as I discussed earlier. In addition to the dialogues as examples, Socrates also presents a view of experts and of good statesmen and seems to imply knowledge is valuable, and, where this is absent, inspired good opinion will substitute. Experience in translating and extending ethical arguments and adopting the translated and extended arguments of other professionals as part of a negotiation can provide a route to expanding a personal lexicon of feelings about what is 'good' and what is 'bad' and contribute to a secure personal repertoire of good opinions.

2.5 The story so far

I have now established an understanding of 'ethics' as something related with 'good' and 'bad'. There are other derivative words like 'optimal' that might also be used, and there are parochial words which are related to particular communities. When we talk about ethics, we are liable to confront cultural differences that are reflected in differences in vocabulary. But there are other kinds of differences too. Things have different properties; for example, 'appearance' and 'radiation' might be two different properties of a radio mast, and somehow or other we have to weigh those up one against another. There are also different kinds of things like 'fears', 'means', 'ends', 'relationships', 'virtues', 'pleasures' and 'pains'. All of these seem quite incommensurate but all are related to how we value things, so one of the difficulties of ethics is how to put those things together to decide on and justify a course of action.

When combining different kinds of 'goods' and 'bads', we often get contradictions and, sometimes, ambiguities, so we need to be able to cope with those. Socrates' solution was to 'measure' the 'goods' and 'bads' and then perform some calculations, which might be a fine idea if we had a way of measuring things in the first place! This, unfortunately, is something which he did not suggest. Wittgenstein, on the other hand, suggests that the way out is to change the language game that we're playing. In other words, if there is a problem with vocabularies and their use, then we need to negotiate a common vocabulary and change the way things and their relationships are described if we're to avoid some of these difficulties.

I also looked at examples taken from professional codes of practice that illustrate those difficulties, suggesting that, whilst codes of practice may offer a guide to action, we can often imagine circumstances where the rules in a code of practice contradict one another. Contradictions thus created provide a source of inspiration for the dramatist, but they create real conundrums for professionals and practitioners.

3 Relationships, emotions and ethics

3.1 Introduction

In this section I would like to look at a complete play script to examine how ethics and ethical issues are dealt with. I've chosen this particular play because Katie Hims, the author, is particularly good at writing natural sounding dialogue, and this ‘naturalness’ is something that is sometimes missing in some scenarios specifically created to illustrate ethical questions within technological contexts. The play was originally written for and broadcast on the BBC Radio 4 as part of the Connecting series of plays exploring the impact of communication and information technologies, but here we are providing the original script.

In the previous section I started talking about relationships, and one of the things to look for in this play is what kind of relationships there are as well as the values that people might attribute to those relationships. This sort of focus allows us to see clearly the different kinds of values we put on different relationships. Although this play is not specifically about ethics, it sets the scene for the next play I will discuss in the next section, and that play is much more focused on ethics. However, looking at relationships and the values people assign to them is particularly useful to highlight another important issue within ethics, namely, the role of emotions, and this leads us neatly to the second resource explored in the section.

The second resource we will look at is a dialogue written by the philosopher Martha Nussbaum. Nussbaum writes about ethics and emotions, but, in the extracts I will ask you to read, she is actually presenting something about ethics and emotions in dialogic form. Interestingly, she is not only using a dialogic form, but the dialogue actually has two different forms within a form as she presents a lecture as well as her interaction her parents.

3.2 Relationships and ethics

Activity 12

Read the script of the audio play *Call Waiting* attached below. Jot down some answers to the following questions:

1. What is valued in the play?
2. What action is taken?
3. What is the role of technology?
4. What are the ethical questions?

Call Waiting

Comments

The play is about somebody who is likely to lose their life, so clearly one thing that is valued is human life, although it is not clear that everybody in the play is necessarily interested in that particular person. So what the play does really is show us is a number of relationships. Some of these relationships are highly valued, and some apparently are not. In a way, the play is about the development of those relationships.

It is quite clear, however, that different people have different interests in building those relationships, and they use things like their authority, the trust people have in them and the community that they know to develop those relationships. Words, delivered by a variety of technologies, are the medium that enables relationships between particular partners.

The ethical questions raised revolve around the measures that people take to establish relationships. Also, there are questions related with the conflicts that arise in forming and developing these relationships. Overall, the play illustrates that the ethical analysis of situations must consider networks of relationships. An ethical analysis that restricts its considerations to a single individual's interests or even two interlocutors is not adequate.

A crucial thing about the play is that everything is done with words, with speaking. This illustrates that words have long-lasting effects, which is consistent with Wittgenstein's view of language I introduced in Section 2.3. In a nutshell: through the words, in the end, we have effects on the world. The words spoken affect the relationships in question, relationships affect behaviour, and behaviour affects the world. Relationships are crucial, and they are most commonly manipulated through words. Because words have an effect on the world, they are something we should care about when we are thinking about ethics.

Another thing that the play does is that it shows people using all sorts of technology to communicate. Text messaging, telephones, all sorts of things that we actually take for granted these days. Despite all of this, nobody seems to know anything. Although we've got all these things called information and communication technologies, things that everybody is using to communicate, the play shows that they do not always help. What the technologies do is that they enable relationships between more distant partners, but this, by itself, is not enough. It is interesting that the main character in the play contacts all sorts of people, but she never actually talks to a next door neighbour. From this perspective, the effect of technologies has been to disperse the relationship. The play suggests that, whilst we are building relationships, different people have different interests, and different people want to build different relationships or, perhaps, destroy others, ethical questions arise because of the conflicts that occur in forming relationships.

In the play people are building relationships. For example, Carol, the principal, chooses actually not to develop her relationship with her mother over the incident. What is said and gestured tells us about the value she places on the relationship. On the other hand, the hotel receptionist is patient and polite, and Carol too is patient and polite in dealing with him. This is a rather valuable relationship to Carol because it seems to be the only potential reliable source of help, and she does indeed gain some information. Near the end of the play the HR person comes along, and he clearly has a quite different agenda to Carol's. He wants to get hold of what is on the computer, and she soon realises she is not going to get much help from him. Because of his interests he adopts a rather barren expression, and Carol grows in anger. As a result, when they part their relationship is not a particularly happy one, and it is unlikely to be particularly constructive in the future. So

things such as relationships change, and people are encouraged or discouraged to do things as a result.

People are communicating in the play but, ironically, they do not seem to get particularly better informed as a result of all of this. So, perhaps, what they are doing is that they are building relationships that would have a potential to enable them to act in the future, should a possibility arise. The incapacity to act in the situation is a consequence of uncertainty about what was happening in other parts of the world.

I noted above on another interesting point about the play: that people have a collection of high-tech gadgets at their disposal (it is a high tech company, after all). However, all the conversations are hardly ever about technology. Although the technology facilitates relationships, it does not provide a topic of conversation that people want to explore. Interestingly, when the message 'Help me Phil' arrives, it adds to the confusion. The images on the expressive medium of television hardly make things any better because they stir up the imagination and add to the range of forebodings. So, here again the technology really has not helped. What it has done is to confuse and to open up for people another range of possibilities that just add to the confusion.

The play also illustrates another point I made earlier in the course, that ethics is not about action, but about preparation for action, about getting ready to act once sufficient knowledge is available. It is about building the authority to act and establishing reliable channels of communication. This is problematic because different players will have different interests that may be in conflict and, hence, wish to establish different kinds of relationships.

Crucially, this problem is not an artefact of drama, nor is it something that arises only in connection with 'big', life-changing (or threatening) situations. For an illustration, consider an example taken from the satirical novel The Tin Men by Michael Frayn. The novel is set in an Ethics Department where experiments are carried out to see if a robot will sacrifice itself to save a person. The extract in Box 4 shows what happens after a successful test.

Box 4: Extract from M. Frayn's *The Tin Men*

The robot Samaritan II came back up to the gantry, winched by crane. …

"Doesn't it look a bit sanctimonious to you?" [Goldwasser] asked Macintosh.

"Aye, … It's a minor defect …"

"But …, if it enjoys sacrificing itself it's not taking an ethical decision…, is it?"

"… why shouldn't it enjoy doing right?"

"But if it's enjoyable it's not self-sacrifice."

"If a thing is right it's right and if you enjoy it so much the better"

"It may be right. But … it's not ethically interesting!"

(*Frayn, 1965, pp. 19–20*)

Academic discussions about ethics often ignore everyday circumstances, but these are, more often than not, riddled with ethical assertions. Technologists' accounts, for example, continually assert what is 'good' and approved by their profession. Most of these ethical assertions are not about matters of life and death, but about commonplace actions which, in spite of their banality, can still be judged to be 'good' or 'bad' and may (or may not) be a source of disagreement. And my point here, by quoting that, is that an awful lot of things

that we do are ethical but they're not particularly interesting. In other words, even if there is agreement and the issue at stake is everyday, it can still be ethical.

In an attempt to reduce bias and uncertainties, technology developers and scientists are taught many of the techniques common to science. However, they do so within a raft of economies. Firstly, there is an attention economy, which implies a limitation on what an individual can absorb and the amount of attention others are willing to pay. There are limits to the authority of individuals. There are limitations on where people can be and at what time they can be there. There are the limitations on the locations and schedules of individuals which imply that no one can be privy to everything that is said. There are also limitations on resources, money, personal and physical energy. Available theories about things are also limited and, importantly, disconnected. Consequently, individuals have a personal archipelago of influences, goals and understandings, and within a technological enterprise these various economies stimulate differences of opinion – differences that lead to discussions and deliberation that arouse a wide range of emotions: frustration, anger, anxiety, elation, pride and so on. All of these emotions may be quickened by clashes of loyalty to the company, the public, family, colleagues and friends. Therefore, we can't avoid emotion when dealing with action and persuading people to act.

3.3 Emotions and judgements

As I suggested above, I am adopting Martha Nussbaum's view of emotions put forward in her dialogue ‘Emotions as judgements of value’ (Nussbaum, 1998). In the introduction she writes: ‘When you put a position in the mouth of a real person, especially the person you love you have to make it real’. She is suggesting that, if you do not write dialogue, then something different and abstract emerges. Her dialogue illustrates this since it is in the form of a lecture by Anna (a thinly disguised Martha Nussbaum) with lengthy interjections of a conversation between Anna and her mother and, later, her father. The topic of the text is emotion and its relationship to ethical judgements, and I will present her argument below.

Activity 13

A limited preview of the text is available online, but there are copyright restrictions in place that may make it difficult for you to access the material. If you do gain access to that (or to a printed version – you will find the bibliographical details in the ‘References’ section at the end of this free course), you might like to have a look at the text just to get a feel for the style of presentation, with particular focus on pages 35 (opening and scene-setting), 36 (comments about the project, presented as part of the dialogue) and 37–38 (where the philosophical result of the arguments is presented in a nutshell).

In Martha Nussbaum's view, one important point about emotional reactions is that they can be quite valuable in helping people to identify what matters to them, even though this can be a bit of a disquieting idea. In her dialogue she advances the thesis that emotions are forms of judgement, so she plants them fairly and squarely in the field of judgement and, hence, ethics. Nussbaum takes her lead from the Stoics, and that leads us back to the Ancient Greeks as a starting point.

The Stoics had a twofold perspective on emotions. First of all they saw them as a type of evaluative thought, a way of evaluating things, even though they are potentially unreliable

and inaccurate. However, the Stoics' view, and that's why we use the word 'stoical', was that the emotions should be suppressed. We should strive to suppress our emotions as our lifetime's quest. Their argument was that, once emotions are suppressed, rationality will come through. But Nussbaum rejects that second part of this argument, the one referring to suppression. Instead, she wants to recognise the contributions emotions make to our knowledge of things, suggesting that we need to learn how to integrate the experience of emotions into well-considered judgements.

As engineers, designers or programmers, we've got theories, regulations, rules of thumb, prototypes, experiments, opinions of others, all sorts of things, and somehow those different bits and pieces never quite fit together, and some of them only fit rather roughly to what we may be intending to do. Since we experience emotion while considering all of these things, emotions are useful in that they provide an umbrella for the overall experience.

Nussbaum says that 'emotions are not simply ways of seeing an object but they're beliefs about the object, especially those we're unsure of and cannot influence.' She is saying that emotions can be a guide to those things that seem to be important, yet intangible or difficult to grasp. The kind of objects she is talking about are not concrete objects, but things like theories, documents, opinions, assertions and assumptions, and the people who articulate those things. For instance, she suggests that, if we experience anger, then that expresses a thought about potential harm or damage. Since we are talking about ethics, then, clearly, it is worth while reflecting on that. We may experience anger but afterwards reflect upon it, and perhaps we will be able to identify the harm or damage felt, possibly subconsciously, that caused the anger.

Nussbaum saw these emotions as being rather unreliable and suggested that we should scrutinise and rationalise them. In other words, we should formulate a reason for the emotion. This is a kind of reflection, one that hopefully brings a sense of proportion and adjustment to enable the otherwise ill-defined experience to be constructive and, crucially, be used in an ethical argument. Adopting Nussbaum's view provides grounds for recognising the bursts of anger and delight, and the responses to them, responses which always alter the course of development of technological projects.

Following from that is the idea that, if we ignore our emotions, then we neglect something, an authentic thought, about an authentic rather than imagined situation. If we work with our logic, then we are always modelling situations. Emotion, however, is much closer to a situation than our reasoning about it. The consequence of ignoring emotions, Nussbaum would suggest, is that our judgements are poorer and deficient. And this is not an uncommon view when you come to investigate philosophical writings.

For instance, Alan Janik, actually a Wittgenstein scholar, noted that the enlightenment profoundly influenced attitudes towards technology in that it proselytised about progress arising from a scientific attitude to life and its technical deployment (Janik, 1995). In addition, he suggests there was a second, often forgotten, theme, a notion supported also by David Hume, that 'Reason is, and ought only to be the slave of the passions' (*A Treatise of Human Nature*, Book II, Part III, Section III –.

Now, although Nussbaum's view is that emotions have a valuable role in our ethical judgements, she does not see all emotions as being productive. Clearly emotions tell us about how we value things, but we're also skilled at provoking emotions in others. I talked about that when I was talking about relationships earlier in the section. Emotions provide us with the means to impress on others the value we place on things, and we do that by striking up fears, or we can strike up pleasurable thoughts in others.

Interestingly, Socrates was actually aware of this. In *Gorgias* he said that speechmaking can be a form of gratification, and that is how it gets its influence. But he wanted to avoid that: he is against this kind of emotional provocation. Of course, this raises the question of whether it is right to exploit other people's emotions, either deliberately or, sometimes as we do, without forethought, for example, when our enthusiasm is contagious or our grief is infectious. If this is not 'right', then one thing we have to do is to strive to recognise when we are exploiting the emotions of others.

Of course there are all sorts of emotions and categorisations for these, and some indeed are presented as positive whilst some are considered negative. It might be claimed that these classifications emerge from the stoical view. From this view also emerges the notion that the scientific method is dispassionate and offers techniques that avoid emotional influences by, for example, reducing a judgement to a calculation. Nevertheless, even the most pragmatic scientist or technologist would expect to be enthusiastic or disappointed from time to time, so I am not quite sure about science as being totally without 'passion'. Also, if Nussbaum's view holds, then it sounds as though we've got a great deal to lose by suppressing our emotions even though there are emotions that we would probably agree are wrong. In the extreme, emotional provocation is what people use to torture others, and I guess we would on the whole be against that.

Nussbaum actually picks out two emotions she regards as dangerous: shame and disgust. It is interesting that both shame and disgust are used as forms of punishment or even to justify punishment. Nussbaum's argument is that, when it comes to shame, the trouble is that it attacks the whole person, whereas if you want to castigate somebody, this should be done for a particular act. Shame aimed at the whole character is not appropriate. She also says that if you want to use shame to influence people, this is inconsistent with some ideas we have about removing shame. For example, anti-discrimination laws and rules are about removing shame that people might feel, and so there is an inconsistency in talking about shame. If you want to 'get at somebody', she suggests that guilt is a much more directed emotion towards particular acts, which is a view that has a long history. The trouble is that the person who is being acted upon, the person being shamed, may be missing the point and not seeing which act it is that others find offensive. This is hardly productive and potentially inhuman.

Disgust, Nussbaum says, comes from holding up a mirror to ourselves to discover that we are in fact animal in nature, and this is something that we take great pains to avoid. So, if we are talking about disgust of other people, we are trying to say that they have an animal nature and they are distant from us. This is a mode of discrimination, and often discrimination that is supported not by events, but by myths.

To summarise: I think we would find that there are emotions we would not want to exploit, or there are degrees of exploitation we would not want to use. I do not want to go through a list of emotions to see which are worthy and which are not, but I want to stress the point that, in putting an ethical case, we are liable to exploit other people's emotions, and that, in itself, has an ethical dimension. So, if you use other people's emotions and you think some of those emotions are 'bad' things to exploit, then the relationship-building is itself an ethical entity. As we are thinking about ethics, then emotions are really rather important, and for people like Nussbaum there is a feeling that emotions can be constructive but only if we reflect upon them and build them into our arguments. On the other hand, they are, for each of us, individually, an important indicator of how much we value things and perhaps emotions provide us with things that are not expressible in words.

Activity 14

This is quite a lot to take in, so I thought it would help you to put some of this in context with an excerpt from the group discussion that took place in the 2008 trial. Please be aware that the quality of the video and audio varies as it was recorded as a Flash Meeting and was therefore dependent on the equipment and connection speeds of the individual participants.

Video content is not available in this format.
Discussion 2

3.4 Negotiation and adaptation

I suggested that one way out of our contradictions is to begin to negotiate. This implies that negotiation and what you do during negotiation is a part of the business of ethics. Ethical texts normally focus on contradictions, but, as I also mentioned above, actually people do agree a lot of the time, so life is not all contradictions.

Contradictions, however, do pose a problem, and I used the play *Antigone* to illustrate that conflict can arise. In the case of *Antigone*, it involved three things. Firstly, there were two views of what should be done, Antigone's view and Creon's view, which were in conflict in a particular situation. Antigone's views and Creon's views looked perfectly reasonable to both of them, except in that very specific situation, which is the third element. It's that kind of confluence of two different lines of reasoning in a specific and testing circumstance that brings about the conflict.

If the contradiction occurs, if two positions, two different lines of reasoning that are well established and persistent, then, of course, people will tend to stick to those lines, and the conflict will arouse emotions as they try and reconcile the irreconcilable. For an individual, contradictions of this kind can lead to breakdown. If we are talking about communities, it can lead to violent conflict. Hence, one reason we want to avoid contradictions is that contradictions lead to conflict, and conflict is unpleasant for all involved, and indeed lethal at times. Nevertheless, Wittgenstein reminded us that contradictions can be viewed as properties of particular language games, and the contradiction can be removed by adjusting the rules of the game.

It would seem, then, that we've got three choices: we can battle on against one another, we can adjust the language game by agreement or, because these things happen in particular circumstances, we can try and alter the circumstances. An excellent example of how circumstances can be altered is provided by Isaac Asimov's work. Asimov, you may know, wrote three laws of robotics and then produced a whole series of novels that revolved around testing out these laws. Several of his followers also thought this was a good wheeze for writing novels, but as they imagined new situations, they kept on finding they had to adjust the laws to fit their circumstances, so that they could bring their novel to an end, or they had to restrict their imagination to the situations that permitted machines to obey the rules.

In Harry Harrison and Marvin Minsky's novel *The Turing Option*, Beckworth, the villain, is confronted by a robot. The robot, who is programmed according to Asimov's Laws, roars out ‘Killing forbidden!’ It hurls itself forward reaching for Beckworth and clutches the man

in an unbreakable embrace. Beckworth fires into the brain case of the robot, and, as every single branch of the manipulator springs apart, the tiny twigs of metal slash through the man's body, killing him.

The villain is killed in that case, but notice the act of killing was executed by the remnants of the shattered robot. In other words, it was not the robot that killed him, but its disintegration into bits that killed him. In this way the robot and its programmers are released from their obligations by the villain being killed by the bits of the robot rather than the programmed robot itself. The situation is only resolved because the events were under the control of an author, that is, the author wrote it that way. Of course, however, in most situations we cannot rewrite the script, so we are stuck with the situation as it is, and the alternative that remains is to adapt the rules.

In fact, again in *Antigone*, Creon's son reminds Creon that he was the one who imposed the brutal punishment on Antigone, adding that the trees that bend save themselves. So it seems that the way out of the conflict is to adapt. In practice, the adaptation often takes place through negotiation, when two different parties with two different views get together. This is very relevant to technologists, who are educated to see a kind of technical landscape that may actually be invisible or impenetrable to others. Often the technologist is an intermediary, and they have to persuade others to do things without having a powerful enough argument, an argument that other people would recognise.

Consider the case of a designer who has designed something and wants it produced, but their case for the design does not convince the investors. Now, either or both sides have to do some work if they are going to profit from the design. If the investors are not going to invest in it, what the designer might do is to modify the language game and restate their case using the final vocabulary of the investors. In other words, the designer might consider changing the words they use, adapt them so that the investors can evaluate the case using terms they find dependable. This does not mean that the original case, the original reasons the designer had, have become invalid. Nor does it mean that the designer is comfortable with the vocabulary of the investors. It is simply that an alternative form of justification is used that might be convincing. As a bonus, this move has the potential to extend the designer's vocabulary and add to the sophistication of their future ethical assertions. The designer has had the chance to practice with a new vocabulary, extending their vocabulary in a way that experience has enabled.

In some cases, of course, this translation into another domain will result in a case that is unacceptable to the investors, and the designer will be disappointed. Alternatively, the designer may actually feel uneasy with the reformulated case. There may be features of the case that were not evident originally, so the designer may discover that they indeed feel badly about the proposal. In this case, because the designer is unfamiliar with the language, perhaps their emotions will be more informative than any understanding. Emotions will signal whether or not this unexplored, unfamiliar formulation reaches a ‘good’ or ‘bad’ conclusion. If these feelings are to be integrated into the negotiation, then the designer needs to put an effort into expressing that emotion, that distaste or hopefully approval.

If we look at negotiation in that way, as translating into perhaps an unfamiliar language or adapting the language game, then it appears that technologists have to be sensitive to their own emotions, to see how they feel about the case that they are putting together. They have to be able to express those feelings to persuade others that the proposed actions are ‘good’ or ‘bad’. Also, they must be able to accept that persuasion may rightly fail as a consequence of their actually not originally having a complete view, so they should be prepared to retire with some grace.

There is an analogy here between the logic that makes technology work and the interface that makes it acceptable. Whilst the logic of the programming may be pretty rigorous, depending on who it is that is going to use, understand, be able to use the functionality, a different interface might be necessary, hence a different interface for a child, an adult, another machine. People, different people, perhaps of different ages will operate with different kinds of gestures, will be familiar with different kinds of gestures, and may not be able to certainly cope with the sorts of gestures of language that a programmer might use. So, in terms of communication, I may have the feeling that I want to say something, but there is another step there. I want to say something because I want the person to whom I'm going to say it, to understand it, to accept it, to see it. Now I may have to change completely the vocabulary I want to express to a vocabulary that will be understood and accepted. There is no point in saying it unless it's received.

You can also think in terms of marketing, because you pick the target market that you're talking to and basically tailor the message that you want to get across to that market, and try and persuade that market. Therefore, here too we are talking about relationships: you've got to think about the relationship that you are dealing with, and what would best suit that relationship When you are marketing, you are trying to tell people that something is ‘good’ for them, so marketing too is an exercise in ethics.

If we accept Nussbaum's view that emotion tells us something that can help us make better judgements, we might expect the ‘virtuous’ technologist to make efforts to be aware of their own emotions, to be aware of the way in which they exploit the emotions of others, and also to show restraint. Therefore, translating and extending ethical arguments as part of a negotiation can provide a route to expanding a personal vocabulary of feelings that might constitute a repertoire of ‘good’ opinions. Ultimately a technologist's role is to represent some artefact and construct a case for its construction, modification or disposal. Remember that a technologist can be arguing *against* building something, as well as *for* building something. But to be effective within the emotional ‘soup’, and to play a full part in the process associated with an eventual decision, they will have to be persuasive, fluent, assertive and, perhaps above all, empathetic.

3.5 The story so far

I have been discussing ethics as related to labelling things as ‘good’ and ‘bad’ or using more parochial words as substitutes. Different kinds of things could be said to be ‘good’ or ‘bad’, including means, ends, relationships, feelings, appearances, radiation levels and so on. The big ethical problem is how to combine this variety of things to reach a judgement, especially when combining them, it is possible that we end up with ambiguity or contradictions. I have explored the role of rhetoric in presenting an ethical argument, but I also said that there is no universal solution, no universal logic to help us out of difficulties.

In this section I examined the play *Call Waiting*, and I suggested that it was essentially about relationships, their construction, maintenance and development. The play illustrates that, when we are constructing or maintaining relationships, we engage in actions, and those actions can also be ‘good’ or ‘bad’.

Although the context of the play was technological, and it was a technologist who was in trouble, the technologies themselves didn't add too much to the ethical situation. All they did was to enable people to connect, so, although they brought together different sorts of people, they didn't necessarily alter the kinds of discussions these people had. Ironically, in spite of all the communication devices available throughout the play, none of the characters quite knew what was going on, so the information technology was not

delivering information. Nevertheless things happened, relationships changed and people were encouraged or discouraged to do things. What brought about those changes were people's utterances, i.e. what they said, and in what they said there were emotions conveyed, and, sometimes, aroused in other people.

Regarding emotions, I looked at Martha Nussbaum's work and her rather special slant on emotions. Partially based on the Stoics' view of emotions, Nussbaum presents a case in which emotions are viewed as being indicative of the value of things. In contrast with the Stoics, however, Nussbaum stresses the contribution that emotions make to our knowledge, and she wants to integrate the experience of emotions into our judgements.

Of course we are applying all of this to the context of Information and Computer Sciences, so were talking about the professional practice of engineers, programmers and developers. Indeed, these technologists make ethical evaluations and judgements – that is partly why they are employed. However, they are informed by a relatively ill-assorted mixture of theory, regulations, experiments, common knowledge and opinions. So what is the role of emotions in this practice? Emotions act as a signpost that guides the synthesis of all the other bits and pieces that we collect that are often disconnected. But those bits of evidence, when we assemble them, will provide the firm case of action of which emotions can only be an indicator. Consequently, we should see emotions as pointing to a conclusion, to what it is we value in a situation, but we still have to make the case well to convince others. In short, emotions are imprecise, but they are a necessary constituent of the technologists' judgements.

4 Ethics everyday

4.1 Introduction

The main resource for this section is the play *Last Call* by Mike Walker, the play that follows *Call Waiting* in the BBC Radio 4 series. This is a text rich in ethical issues, and, as you will see, these include not only 'big' questions (concerning, for example, the deployment and use of surveillance technologies) but, interestingly, everyday issues that you or I might face in our professional practice. This is, indeed, one of the reasons why I have chosen to explore this play in the course: the play illustrates that ethical statements and arguments crop up in everyday conversations more often than not.

4.2 The good, the bad and the loyal

Activity 15

Read the script of the play *Last Call* by clicking on the link below. Jot down some ideas on the main issues, you feel, the play suggests.

Last Call

Comments

The play shows, amongst other things, the fierce loyalty that people can show towards an institution like a company, and how that loyalty strongly influences their judgements. Loyalty is giving preference in some way to one group, and, by doing so we are denying another group something that we are giving to the privileged group. This becomes an ethical issue when we start asking, should we be paying attention to this group rather than the other? Is this the 'best' group to pay attention to? Are there other more 'needy' groups we might perhaps choose to support? Ultimately, we need to give a justification of our choice to support one group over another, and this is an ethical argument.

Another thing the play illustrates is that ethical statements and arguments are an intrinsic part of everyday conversations. Even though there are some really big issues at stake (e.g. people were smuggling data in and out of Uzbekistan in order to support a repressive regime), and there is, of course, a crisis in the company, people's behaviour is not dissimilar to their behaviour in other circumstances. That is, ethics is not something that is just about major human issues, but it is also about the everyday.

It really strikes me that there were all sorts of 'little' things in the play that are really ethical issues we are all confronted with on a day-to-day basis, and somehow or other the big issues do not occupy people as much as those every day things. You may wonder whether the everyday things are the ones that matter because they build up into a kind of 'ethical personality'. It is in the everyday interactions with others that we get to feel what is 'good' and 'bad', and I feel that this goes on through the play. Sometimes I was a bit worried about some of the characters, particularly Herrenvolk, who seemed to be a thoroughly 'bad' character, and I wasn't quite sure what was going

to change him in any way. But I also noticed that he seemed to be a fairly unemotional character, and perhaps there is a clue there.

You might like to read the play more than once to see how your impressions change, and then try the next activity.

Activity 16

Saying that something is ‘good’ asserts something about a final vocabulary or the conclusion of an ethical case. Read through the play once again and try to identify things that are said to be ‘good’.

Comments

This is my tentative list, but I may have missed out on things.

When they talk about Steve Jobs, they say a ‘great’ thing is that he is over 30 but is still having ideas. So ‘ideas’ seem to be a ‘good’ thing. When they talk about the workforce in the company, it is ‘skill’ that seems to be really important, people are considered ‘good’ because they have skill. I noted above that the company is seen as a ‘good’ thing. Sara, the PR person, gets told that she should not interfere, so ‘not interfering’ is seen by some people as being a ‘good’. Towards the end of the play, a case is made for ICT being installed for the ‘good of the Continent for Africa’, so ‘ICT’ is seen as a ‘good’. Oddly, there seem to be no particular people or relationships being seen to be ‘good’.

Indeed, Sara is an interesting character that follows a convoluted trajectory. Sara needs to interfere, to find out, because people are not telling her what is going on, and she wants, at least for a while, to find out, possibly to be better informed and perhaps act. In the end she does not, she just goes back to her old job. She is offered opportunities to take the lift, go out the door or go up to the sixth floor. But the pressure is on her to realise what is in her own self-interest, what is ‘good’ for her, personally, or, perhaps, for the many company employees. If she really wants to keep her job, she needs to join the ‘big league’ and become part of the conspiracy. Perhaps the familiarity with the job and the actions that go with it, the practices that go with it, and the people she deals with, everything turns out to be quite comforting. Maybe it should not be, but perhaps it is for Sara as well as for anyone in a similar situation.

4.3 Can theft be right?

When Sara is on her mission to find out, to get to the bottom of things, she gets hold of some financial records, and Herrenvolk accuses Sarah of theft. Strictly speaking, this is theft, but she discovers that these financial records are rather suspicious and, perhaps, provide evidence of some undercover action. So there is a question here: even if this is theft, is it ‘right’ in that case? Were suspicions enough to justify the stealing? Take a moment to think about this.

Activity 17

Jot down your views on the questions above.

Comments

Bearing in mind what I have said about Wittgenstein's language games and different uses of language, Sara might be justified. Consider this: if I took a gun from someone in order to stop them from shooting someone, I would call this ‘confiscation’ instead of ‘theft’. This is because ‘confiscation’ is an appropriate description of the situation and works neatly with an acceptable justification for my action. Sara wouldn't have called what she did ‘theft’, as Herrenvolk did, so we've got a difference of vocabulary.

Later in the play, Sara threatens to use her knowledge and position as a press officer to ‘spill the beans’ about Patrick. She uses that blackmail to force Patrick to tell her what is going on. So there, I think, she must have been conscious that she was exploiting her power in rather dubious ways in order to persuade Patrick to give her information. He actually responds to the threat, recognising that, if she wants something so much that she is willing to compromise her professional standards, then she really means business, so he capitulates.

Interestingly, there is perhaps a measure of naivety to Sara's actions, at least in the beginning. Indeed, before she talked to the editor of the magazine, Sara was not going to do anything about the situation; she is just intent on dealing with the Mozambique contract. The conversation with the magazine editor changes her view, as he tells her a few things that, albeit surprisingly given her position, she is not aware of.

4.4 Legitimacy vs rights

Another major theme in the play relates to the surveillance equipment. The general question about surveillance is raised as soon as we are told that the company is installing a system for that purpose. You might be inclined to think that the government is entitled to deploy a surveillance system because there are problems that need to be dealt with, somehow; perhaps you view the system as just a technological extension of the police. However, individuals too have rights, and this raises questions concerning the legitimacy of surveillance systems.

Interestingly, there is an ambiguity, which I think is deliberate on the part of the play author, of which ‘government’ is being referred to. The word ‘government’ appears in a number of places, and we cannot be quite sure whether it is the British Government or the Uzbekistan Government that is being alluded to. In the situations where the word is used, the particular characters themselves seem to jump to a conclusion about which government is being discussed. This, however, means that there are differences of understanding about the system and the authorities that are installing it, which can potentially create much confusion.

4.5 Torture

The question of torture is also raised in the play. Herrenvolk claims that he does not do the torture; it is some Uzbekistan outfit that does it. He actually gives them a justification by

saying, in a rather glib way, that it is a lot easier to open a human being than an encrypted laptop. Of course, the question is, is it ever 'right' to exploit this as a means of finding things out? I suspect most of us would say 'no'.

4.6 What matters?

When the laptop is confirmed to be uncompromised, it is interesting that none of the characters cheers, although they all seem to be relieved. In other words, when the statement comes up, 'laptop is uncompromised', people seem to think that is 'good', the outcome is fine. They seem to have forgotten that the technician is probably dead at the time. So, in their deliberations, a person's life is forgotten. I am sure that, if they were reminded of it, they would, of course, say that this is a tragedy or a great sadness, but somehow or other, in the business of running the company, what becomes of concern is that the laptop is uncompromised, and the play moves on.

Another interesting justification is offered regarding Phil, when Sara says that 'he was an engineer, not a bloody spy'. Gray uses an analogy by suggesting that the company is fighting a war. You will probably agree with me that it is very hard to talk about hurting somebody to gain some benefit; that is a point that is possibly impossible to justify. But if you say they are fighting a war, suddenly you move the argument to another field. By bringing in the idea of 'war', Gray is able to say that it is not possible to fight a war without having casualties, so he uses 'war' as an analogy that invites people to agree that loss is acceptable. He uses the analogy and reflects it on another situation where people get hurt, which suddenly makes the hurt that people get seem justified. Using an analogy in this way is a sneaky rhetorical trick in that provides a more secure domain in which to conduct the argument.

You can raise the question of whether it is really possible to justify war in the first place. In Section 1 we looked at Shaw's *Major Barbara* and the faith of the armourer, so this is a question of whether you feel something is so evil that you are in some sense justified in acting violently. There is a parallel here with the example of the gun I discussed in Activity 15. Of course, this constitutes a major ethical question that would require much more space to discuss than is available in this course. An important point to make, however, is that, whilst you and I may have difficulty in justifying a war under most, perhaps any, circumstances, other people do find they can justify it, so we get wars.

The play raises questions of benefits to society, which I have hinted at earlier when discussing Sara's actions. There is a perceived need to work together as a team and keep this company going, so things need to be kept quiet, otherwise the company will fold and the benefit to the local society will collapse. So, the 'benefits of the local society' justifies something that might otherwise be thought of as a 'bad' action, keeping things, rather dubious things, secret.

Another area of questioning regards means or ends. When Gray says that 'we're still committed to make things better for people', he implies that the aim of the company is to make things better for people. But, of course, the play kind of challenges that notion. Nevertheless, Sara, the press officer, is still expected to say that the company makes things better for people. She needs to create an impression that ensures the survival of the company. But actually what she does is to issue a statement, and the statement is a means to a different end, namely, the survival of the company. So you have to distinguish between statements and actions: what Sara does is to make a statement that says the company makes things better for people, but that will ensure the company survives, and survival seems to be what people are trying to do. I mentioned above familiar, comfortable

work situations, and here the characters are trying to grasp at that. What you are going to do or what you plan to achieve, when these things are written down, they are no longer an end: they become a statement. This is a subtle yet quite significant distinction.

I mentioned that loyalty to the company is one of the major themes in the play, but there are other types of loyalty questions raised as well. In the play Tim says that he should have read the kids a story instead of watching Steve Jobs. We all have responsibilities for the future, the future of our family, our own futures, and, because many of us are involved in relationships, the future of others around us. So watching Steve Jobs was, perhaps, something that he should have done, because he would have learned something that might help him in the future. On the other hand, perhaps the 'right' choice would be to read the kids a story. What is more important? I am again talking about relationships here, and there are two relationships at work in this particular instance: there is the family relationship and the work relationship. We all have personal relationships and, often, work relationships, but they do not necessarily work in unison with one another. I repeat the question: what is more important?

Talking about relationships, there is an interesting moment in the play when Richard, the magazine editor, gets in touch with Sara and mentions 'Lancaster'. I jumped to the conclusion that they had been at Lancaster University together, as he said 'we used to know each other'. In any case, they have a history, and it is interesting that that relationship was forged perhaps ten years before and a single word, 'Lancaster', revived the relationship. In this way they can talk together in a quite different way to if they had not had that earlier connection. The word gave them a more comfortable and immediate relationship.

Of course, there are all sorts of other relationships, including those related to being part of the workforce. Carol, Phil's wife, says, 'He does what he's asked to do.' But, as an engineer or, perhaps, a programmer, don't you think he should be kind of asking a little more, perhaps what it is he is doing and why he is doing it? Patrick dodged the question about whether any more had been explained to Phil. The question then becomes: if people are not knowledgeable about things, can they act for the 'good'? Is part of being 'virtuous' finding out about things? How can a 'contractor', someone who is an expert in a particular area and is asked to do a specific job, be 'virtuous'?

I think there are parallels in some conflicts like the above and those shown in the play. There are all sorts of deceptions going on in the play, where people don't quite 'tell it as it is'. There is actually a downright lie when Herrenvolk says he is from the HR department and we discover he is not, and there are all sorts of anxieties. Sara says, when they talk about the burning man at the beginning of the play, that it is all about images, things that grab us, just images. She then moves on to talk about the project in Mozambique, partly because it is not the company's man. In a way she is deceiving herself in that particular instance.

Another interesting aspect of the play is that there are a number of situations where emotions are actually rather poorly read, so there is a clear lack of empathy. A particularly poignant example is when Sara goes to visit Carol. Sara says she understands what Carol is going through, but, of course, there is no way that Sara can understand or can fully emphasise with what Carol is going through. Carol gets pretty cross about that, and explodes into a kind of mixture of emotions. This mixture of emotions from Carol actually informs Sara about the frustration and anger that Carol feels. After the outburst, you feel that Sara does actually begin to understand rather better something about the tragedy, and she withdraws from the whole thing with some sympathy. Once Sara recognises the seriousness of the situation, she uses all sorts of devices to find out more and to use her

knowledge to shake the company up. But, of course, when she does find out about everything, she gives up.

One final issue I would like to highlight is the ‘big’ question I noted earlier concerning the project that collects data and exports it to another jurisdiction where it can be sorted and filtered without the intervention of the law, to be returned to help a repressive regime. Whether this is ‘good’ or ‘bad’ in a way hardly seems to matter because it all seems to be outside the control of the company, which is fettered by contracts and the need for revenue. The issues confronting the individuals seem to be much more parochial and they are very entangled. So, even if you wanted to do anything, is there the time? Can you gain the authority to do it? Certainly not within the company. If you're to do anything about this big issue of surveillance in the play, then it needs to be handled politically outside of what is going on.

4.7 The story so far

This section looked at the play *Last Call*. The play is very rich in ethical issues, and one of the most interesting points that are made is that, whilst there are many ‘big’ ethical questions worthy of discussion and investigation, it seems to be in the everyday, routine conversations and dealings of people that ethical questions get to be asked and answered, even if this is not clearly recognised.

A major ethical issue tackled in the play is loyalty: giving preference in some way to one group, and, by doing so, denying another group something that is being given to the privileged group. There are questions of loyalty to an employer, to work colleagues and to family, and the play presents conflicts of loyalty to these different groups that can occur routinely in anybody's life. The play also raises broader questions regarding the legitimacy of war, torture, surveillance, blackmailing and theft.

5 Landscape with Weapon: an allegory

5.1 Introduction

In this section I want to introduce Joe Penhall's play *Landscape with Weapon*. Having read the play several times, I must stress that it is a text that is particularly rich in ethical issues. These issues, however, are presented in a very down-to-earth way, in a very lively dialogue. I think the lesson from this is that you do not need to be in any kind of 'formal' situation to engage with ethics. Everyday conversation is littered with references and arguments about ethical matters, and this play enables you to see that because the dialogue is written down.

Landscape with Weapon centres on the development and exploitation of a weapon system, but you could think of it as an allegory for any technology that has the potential to do harm. So, although the discussion revolves around weapons, you could think of any other piece of technology, really. Of course, the weapon system will inevitably cause fatalities if used and, in many cases, the likely potential harms of different pieces of technology are not necessarily fatalities. But we have seen that there can be simple things like 'visual intrusion' that can also be seen as a kind of harm. Other possibilities include a technology that might create harmful social divisions, a technology that might have the potential to cause injury or, even, the extravagant uses of resources. The play indeed refers to the knife as a piece of technology that could cause injury, but is, nevertheless, a valuable object when used for all sorts of practical purposes.

The play raises all sorts of incredible questions. One is that it is quite easy for technology, any technology, to be justified by a concept that it is never the technology itself that is the problem, that it is the way people use it that causes the problem, the 'people kill, not guns' line I examined in Section 1. Of course, that is an argument that is regularly used by the weapons industry, but when applied generally to any technology it creates an impossible conundrum to resolve. Instead of talking in terms of generalities, I think we need to look at specific situations and specific circumstances. Only then can we draw judgements about how the technology is used in a particular situation, and whether that is, in some sense, 'good' or 'bad' use of the technology. *Landscape with Weapon* is fictional but it is not generalised. It deals with specific people and specific relationships, and we hear first-hand from the characters.

So, to summarise: *Landscape with Weapon* can be viewed as an allegory referring to almost any technology, including, of course, information and computer systems. This is because almost any technology can cause harm of one kind or another.

5.2 The characters

Activity 18

Read Act 1 of *Landscape with Weapon* and jot down some observations on the characters.

Comment

The prime characters are the two brothers. Interestingly, though, we are not told they are brothers until quite late on, but you can see the relationship is one of brothers. We frequently get the inkling of their views, not only by clear statements but also by their frequent use of rather broken-up English. This has an effect. Also, there is an emotional undercurrent that gets exposed from time to time, with just disconnected words. This kind of emotional undercurrent does influence what we think of as the brothers.

What else can we say about the characters?

You may have you wondered how old they might be, given the topics of conversation and the strong language used. When the play was premiered on stage, the actors playing the brothers appeared to be around about 30. Was that your perception?

It is also interesting to note that most of the characters are linked together by their family history. There are the two brothers and there is their mother; there are Dan's children and the brothers' partner. The play also introduces some of Ned's work colleagues, and there is a variety of other unknown people who will be the victims or beneficiaries of the work of both the brothers.

There is also somebody else in all of the play and, of course, that is the audience. This doesn't get a mention but, of course, a play has an audience or, in your case, a reader. You have to remember that your view, your relationship with the characters, is a rather special one in that you are privy to all of the situations and conversations which the characters are not all necessarily involved in. But the audience will not have the ties of history that the author has given the characters, yet you may find that there are some parallels with relationships that the people in the audience have had or have observed in the course of their own life.

I mentioned the use of strong language above. It would seem that the playwright has chosen occasionally to use language that could be offensive for some members of the audience. The playwright has got an ethical conundrum too! He's got to consider the ethics of the dialogue because it may offend people. Is the 'bad' language excusable? In the case of this play, the playwright is establishing a brotherly relationship, and this might be something that involved a number of expletives and occasional references to male fantasies to demonstrate it is a relationship between two males and, perhaps, it is a fairly 'macho' relationship.

If the playwright wanted to do that, the ethical question becomes whether the potential offence caused by the bad language is countered by the effectiveness of the portrayal. I am choosing to leave it as that here, but you might like to consider this point further: that there is an audience to the play and there is an ethical question in relation to just simply writing about something.

Activity 19

Take a few minutes to consider how the conversation might evolve supposing that Ned and Dan were not brothers, but, perhaps, husband and wife or work colleagues. Would things perhaps turn out differently?

Comments

As I said above, the language the characters are using tells us something about their relationship. Knowledge of this relationship colours our perception of a number of things that they talk about where they use less 'bad language'. If they were not brothers, that is, if they had a different kind of relationship, their conversation would be very different and, most possibly, take different turns. Indeed, one of the things I think drama illustrates particularly well is that the kind of situations, the kind of ethical issues that get raised, all of this is very much associated with specific relationships. In this case we've got two brothers who have, perhaps a fairly bawdy way of talking, so you might like to compare this with a couple of other examples.

In Chekhov's *The Three Sisters* there's something about the kind of conversation that takes place, something which could only happen amongst three sisters and not three other kind of people. In Shakespeare's *King Lear*, of course, it is crucial that Lear is the father and the other three main characters are his daughters, who are, of course, sisters. It's something about the way we relate to one another that does depend upon, as much as anything, the history of the relationship, and brothers and sisters, of course, have lived under the same roof for some time. There are enduring things about siblings, including sibling rivalry and jealousies, and parents are confronted by that. Perhaps they cope with it in different ways. Perhaps some are more successful at coping with it than others, but there is something special about sibling relationships that perhaps is enduring and beyond particular parents.

As I discussed earlier in the course, when we are looking at ethics we often have to be concerned about the kind of relationships at stake, because different relationships will lead to different kinds of discussion. If we want to understand why people are concerned about particular kinds of things, then that will depend upon the kind of relationship we have with them, and the kind of relationship they have with the other people. Relationships, of course, are something drama brings out rather well, demonstrating that, when it comes to ethical matters, the particular relationships are crucial.

Activity 20

As you will have seen, Dan is a dentist and his brother Ned is a technologist. Do you find any differences between their ethical outlooks? Do you think there is something about their work that affects how they might look at ethical matters?

Comments

As a dentist, Dan meets his customers face-to-face while he performs his work. He needs to discuss with them what treatment they need, what is going to be done, and, when the treatment is done, the patient is still there. The idea, of course, is that the patient will benefit, but there may be the odd instances when they may not. When things do not go as planned, the patient may be viewed as a victim. In other words, Dan is very much confronted by his patients, and he's got rather special skills that nobody else in the room has got, so he is largely in control of those immediate outcomes.

Ned operates under very different circumstances. Ned and technologists in general if we explore the play as an allegory, generally do not meet the users or, indeed, the 'victims' of their work. Often they are designers of something that is not yet known with

certainty, perhaps a small part of a large-scale project that is, of course, not yet deployed. Therefore, any discussion that a technologist has about the deployment of a technology is likely to be speculative, and ensuring a 'good' outcome has to depend on 'good predictions and a good' understanding of how the clients are going to behave. But, of course, it also implies that, to ensure a 'good' outcome, the technologist has to have some authority over the technology users. Clearly that's not necessarily possible. Indeed, Ned does have some influence over the artefacts that are produced, but he has little or no influence over their actual use. At the beginning of the play, this is something that Ned has not quite realised. Actually, when Dan comes up with the scheme for training people to administer Botox, he moves into similar territory. He does not create artefacts, but he trains people who, once they leave his premises, are not under his control.

Clearly there is a difference between a kind of medical ethics, where the practitioner is face-to-face with the customers and the technologist's, where the technologist is rarely face-to-face with the customer and doesn't have the degree of authority they might perhaps want.

5.3 Ethics and ethos: 'does mum know?'

In Act 1 we are presented with a fairly naïve Ned, who initially believes himself to be in control. We discover he is very proud of his intellectual achievements and less concerned with money. He explains his inventions and, when he does so, he finds analogies that highlight the aesthetics of what he is designing. At a crucial point in the conversation, his brother Dan asks: 'does mum know?' This is a really significant point in the play because it draws in another relationship and, as I have discussed in earlier sections, relationships are essential to ethical reasoning. The next activity explores this.

Activity 21

One possible aspect of 'mum' is that she is somebody who is non-technical, that is, she may be representing a lay person's view. Can you think of other possible aspects that 'mum' might represent? Jot down a few thoughts before moving on to my comments

Comments

Watch the group discussion on video. You will find that, although we are dealing only with three words, they are strategically used in the text, and this can suggest very different ideas and feelings to different people. Have you found any similarities between your own thoughts and those expressed by the group?

Please be aware that the quality of the video and audio varies as it was recorded as a Flash Meeting and was therefore dependent on the equipment and connection speeds of the individual participants.

Video content is not available in this format.
Discussion 3

Ned argues that he believes in what he is doing. He suggests that it is the activity that he engaged in that is the prime source of satisfaction, not the pay, although it is not very clear whether it is the activity that he believes in, or it is the outcome that he values. But, of course, he is not very specific about what he believes in. ‘I believe in what I am doing, but what is it about what you are doing?’. I get the impression from that piece of the dialogue that Ned does not have a particularly well worked out view of the ethics of what he is involved in.

On the other hand, Dan justifies things in terms of his children, but I think he does that in a very unconvincing way. He arrives at Ned's flat feeling hot and says, ‘Don't you just love global warming?’ It all seems to be couched in a rather flippant way. Dan seems to have a frivolous attitude towards something that others might consider serious, so I immediately get the feeling that he may not be a particularly deep thinker. As the conversation proceeds I think what he wants becomes clear: the money that will bring him luxuries and will allow him to retire early. He is clearly in his job in order to get money.

It is interesting that Dan paints a picture of an idyllic way of life when he realises Ned may gain the rights to his invention, and he suggests what Ned might do if he had all the money (‘a house in Spain’). So we can begin to see what Dan's ethics are rooted in. He presumes that he is entitled to some rewards because, at some point, he indicates he has put a great deal of effort into learning facial anatomy, which incurred a cost, a personal cost, and he feels that this should be balanced by the rewards he feels he is owed and, so, is going to set out to get. He talks about his jeep and various things, but when pressed about these material goods, his justification is usually, and I've said unconvincingly, couched in terms of benefits to his children. His new car seems to be an extravagance, but Dan believes it will impress his brother. Ned, however, is not impressed, so Dan switches his justification and says he bought this large car, this jeep, in order to keep his family safe. He justifies his swimming pool because he says it will help the kids learn to swim. Crucially, he justifies his extra work by saying that it pays for the school fees. As I say, I don't find those reasons convincing, but he is struggling to produce a justification. When he learns of Ned's project, he seems to show a deep-seated concern for the victims of a warfare that might ensue.

As the conversation gets going, Dan starts by talking about his brother's flat, stressing, as we might expect, the financial returns from property rather than any other interesting things about the flat. This, however, leads to a potential embarrassment when Ned points out that he does not own the flat; he rents it. Dan neatly turns the supposition that his brother owns the flat into a conversation, a conversation about his (Dan's) own speculative position. Dan talks about speculation and suggests it is a game, implying that there might be something seedy about it. Nevertheless, he claims that the game demands speculation, so, even though it may be seedy, this is part of the customary way of life, if you like, and because it's a custom, then it is permissible to do it.

I am reminded of the arguments that people use when talking about bribery. As a matter of course people actually do not agree with bribery; we think it's a ‘bad’ thing. However, some claim that, if you want to do business in a particular place with a particular organisation, in a particular country, then you just have to do it, it is part of the custom. This is an argument that people deploy. Whether it works or not, it is difficult to determine. In the context of the play, however, it tends to reinforce our assumptions about Dan and his way of going about things. This is a mundane opening, just an everyday chat about property which probably most of us engage in from time to time, but, actually, it reveals something about an ethical stance. I think this is a really good example of how everyday conversations bring in ethical arguments and ethical statements. They are part of everyday talk.

Clearly the two brothers have got very different views, and from time to time their arguments come to a grinding halt. They reach an impasse, but the conversation then continues. As in all conversations, when the argument reaches an impasse, people talk about other things. They talk about food and places to eat, for example, or they might talk about the weather. This keeps the conversation going, when one of the brothers finds a topic uncomfortable or does not find a way to proceed. Nevertheless, they do seem to want to resolve things. They keep on going back to things, either about the Botox or about the weapons. One of the reasons the conversations stall is because they both said what they are doing is confidential, and they do not reveal everything about what they are doing. So the conversation stalls because one of the partners hasn't got the information he needs to proceed. In order to keep the conversation going, every so often, a bit of the confidential information is leaked out.

Dan's secrecy is self-imposed, and he eventually 'spills the beans' all in one go, but Ned is really constrained by the law. Although he knows he is constrained by the law, breaking the rules appears to be acceptable when the discussions involve members of the family. There is a clear conflict of loyalties going on here, and it is not surprising because members of family often feel they are 'owed' explanations and, of course, members of the family are often confidantes to one another. So Ned breaks the law, effectively, but he does it because he wants to keep this conversation going with his brother to try and explain what is going on.

The dialogue, then, keeps on switching when the brothers run out of steam on one track. We get a sense of how the brothers are feeling about one another's projects and that is very strongly reinforced by the emotional reaction. It is strange that what I see on the page are words, I see some words, and often they are fragmented sentences, yet, somehow, I read into those words emotions. When Dan talks of his Botox enterprise, I clearly get the impression that Ned is shocked. Also, Dan seems really startled when he hears that the military drones can be 'weaponised'. Then Ned gets very enthusiastic and portrays the technology as something that will have the potential to rid the world of particular cunning villains. These displays of emotion contribute significantly to the brothers' understanding of one another but, in this particular play, they rarely do it in a constructive fashion, the emotions tend to be of shock and startlement. But, as a voyeur, I also felt their emotions in those words, and I was just fascinated that words on a page can do that, particularly in a play that is otherwise quite economical with its use of words.

5.4 Intellectual property rights and value

Another important theme raised in the play is intellectual property rights (IPR). Ned's fortunes seem to rely on control of the IPR issues surrounding his invention. He challenges the rights of others to share in the IP because, as he sees it, they have not contributed anything. The assumption is that those that have the idea have IPR, but the IPR has value and, therefore, any proceeds accrued should be due to the person who has the idea. A problem arises here because of the phrase 'intellectual property rights'. It does seem to link it to the person who has the idea.

When it comes to patents, the person having the idea is acknowledged, and the expression of the idea often does have value, but it is quite unlikely that the originator of the idea is able to express that idea without the help of all sorts of other people. Without that support, the originator might not have the time, the energy, the facilities or even the inspiration to develop and express the idea. So the question is, then, should those who

supported the inventor get some reward? My answer would be yes, but, in this case, how is that reward to be funded?

The only source of income value is the expression of the idea. So the only source of reward for anybody involved in this is having a share in the IPR. However, Ned persists in believing the intellectual property is the property of the person who put in the intellectual effort. Perhaps the problem here is the term ‘intellectual property’, which stresses the intellectual component of what is likely to have been quite a collective effort demanding intellectual skills but also practical skills of various kinds. Perhaps it is not intellectual property that we are talking about. Perhaps we are talking about the artefacts that are created by a collective of people, and surely they all deserve a share in what is called the IPR.

Nevertheless, it seems that Ned is, more than anything else, seeking control. Ned is frustrated that he's got little control over how the invention is to be deployed. Shaw's *Major Barbara* comes to mind. Cumming says, ’I shall sell cannons to whom I please and refuse them to who I please’, and Undershaft (the arms dealer) replies, ‘Don't come here lusting for power, young man!’ Cumming continues, ‘Don't listen, the place is driven by the most rascally part of society, he is their slave.’ Undershaft goes on, ‘I’ll take an order from a good man as cheerfully as from a bad one. If you good people prefer preaching and shirking to buying my weapons and fighting the rascals, don't blame me. I can make cannons; I cannot make courage and conviction. Bar, you tire me with your morality mongering.’

Shaw is making a similar point to the one being made in *Landscape with Weapon*. The trouble is that, if you start trying to gain control over who gets the weapons, then you enter into the realms of politics, which is effectively what Ned wants to do. However, he has entered the wrong profession to do that, and, of course, he is ill-suited to enter the realm of politics because his fear of authority lies amongst the technologists and not amongst the politicians. If he actually does want control, then he probably needs to take up a different career and become a politician.

5.5 Rhetorical devices

I talked a bit about Ned's motivations, but I am not quite sure about what he is trying to do to be persuasive. He has this interest in aesthetics, but in giving a detailed explanation of a military technology he is working on, he, from time to time, uses an analogy. One analogy he uses is the ‘flocking of starlings’, which illustrates rather the principle of operation of the technology and suggests that it is a kind of an existence proof. It implies this technology might actually work. But, of course, the analogy also shifts the context as is so often in ethical arguments. People use analogies to shift away from the thing that perhaps is causing some trouble. It shifts the context away from military application to that of nature and introduces the idea of beauty in flight, the beautiful organic movements of the starlings. Through the analogy, he romanticises the work he is engaged in. Later on he evokes a pleasing aesthetic, when he talks about the technology generating a ‘symphony in the sky’. In a slightly different vein, he talks about the technology not as a ‘thing’ that will do a particular job, but as a gesture. Technology becomes a deterrent to violent action. Just as threats, mere words, can deter violent action, so the technology becomes a gesture that will perhaps threaten others and, hence, remove the possibility of violence. Therefore, the technology is no longer a weapon: it becomes a symbol of intent or conviction that persuades others not to act.

This collection of analogies and gestures distances Ned's device and, hence, Ned, from violent action. It is somehow natural, pleasing and aesthetic, and it's just a gesture towards those who might be thinking about being violent towards us. It is difficult to know whether Ned does this consciously or unconsciously, but the effect of such analogies is perhaps to get us to thinking in different terms. Although we may, perhaps, object to the idea of weapons, we might agree with the beauty of what is being created, and that seems to me to fit in with the idea of someone being enamoured with the technology.

Activity 22

Watch the discussion on video to see what the 2008 group had to say. Please be aware that the quality of the video and audio varies as it was recorded as a Flash Meeting and was therefore dependent on the equipment and connection speeds of the individual participants.

Video content is not available in this format.
Discussion 4

Scene two is where the negotiation takes place. The scene opens with Ros attempting to build a cooperative relationship. She enters straight away into small talk and, in so doing, she makes the same mistake as Dan: she talks about the flat, but then discovers he is only renting it. She then shifts to talking about children as an alternative strategy, but, of course, Ned does not have any. She then compliments Ned on his work, and she really strikes a chord when she admires a geometrical design for the cooling device that appears on his laptop. She says, ‘This is what I love about your stuff, it's so eclectic, it's like where does it come from, your brain must be enormous.’ You may be reminded of the section were we looked at Socrates. Socrates said what rhetoric is flattery, but, it seems to me, here we've got a clear example of flattery being deployed to get Ned on Ros’ side. She even goes on to equate his work with that of Da Vinci which, of course, Ned seemed to tacitly agree with. The result of all of this is that Ned signals that serious discussion should take place.

They discuss, at first, possible modifications to the technology, but Ned is actually a bit unhappy about this. Ned somehow senses that he needs to be in a more powerful position than he perhaps is. He uses a tactic of challenging Ros’ use of words. This is not a logical attack, nor is it a direct attack, but he tries to put her off-guard, in a way. His first attack is on the use of the word ‘selling’ to mean ‘promote’ when she says she's ‘selling the idea’. Ned protests, ‘We’re not selling it to them!’, to which Ros replies, ‘No but I mean I have to sell them on it.’ It is a figure of speech, and Ros is clearly on her guard.

A while later they talk about weapon safety, and the discussion is quite interesting. Ros uses the word ‘difficult’, ‘difficult to operate’, where she might have better talked about the tool being ‘demanding’ of the operator or requiring undue skill. But Ned picks up this word ‘difficult’ and asks, ‘What if it's too easy to use?’ He takes a slightly different meaning of the word ‘difficult’ to her. He means it is lacking in safeguards. And he continues, ‘It should be difficult to use.’ He means it should have safeguards, but she meant it is a bit complicated to use.

Throughout that conversation, he is constantly challenging her, picking up on her grammar or her word use rather than explaining what it is he is objecting to. Perhaps he does not know what he is objecting to. Perhaps he just feels it, and he is just trying to

provide some sort of resistance. But in the end, of course, it emerges he is worried about the sale of the device and about the modifications that will allow others to stake a claim. When Ros says we need an indicator on this device, Ned turns it into a moral issue about the irresponsibility of putting the weapon systems into the hands of untrained users. 'If they need an indicator, they don't know what they're doing, they're not proper operators. How can we possibly sell it to these people?'

Ned uses underhand tactics also with his brother. In an attempt to close off an argument, he pounces on his brother's rather ill-judged comment, objecting to Dan's ignorance of the brilliance of the avionics. He does two things with the one single phrase. He shuts up Dan by telling him he is ignorant, and he sings his own praises by mentioning the brilliance of the avionics. In a way, this little bit of conversation reveals that Ned views any criticism of the weapon as a criticism of Ned himself. It is as though the weapon is a part of Ned. His ideas are embedded and embodied in that weapon and it has become a part of his identity. That may be one reason why he defends the weapon and ignores some of the criticism: the weapon is Ned, is an embodiment of Ned and his ideas. Towards the end of Act 1, Ned actually says, 'I have to get this thing made! It's what I do, it's my life!' You can see his very strong affiliation, identification with a piece of technology.

5.6 Identification

We end Act 1 with a clear understanding that it is actually too late for Ned to pull out, even if he wanted to: the weapon has been designed. If he were concerned about the military technology, he should really have worried about that before he took on the job. But he does not, at the end of Act 1, want to pull out. He clearly wants to see the project through. Materialising this idea is what he lives for, and he says this is at the cutting edge, this is where technology is. These ideas are going to have wider ramifications. And you begin to recognise him as seeing the whole thing as an experiment that will advance technology in general, the cutting edge. He is obviously getting his gratification or part of his gratification from the thought that he is contributing to technological progress. Or, perhaps, it's simply that he wants to be sure his theoretical design and, hence, his idea, can be proved in some sense correct. In other words, he wants to know that he is right.

If Ned is actually finding himself totally identified with the project, that the project and he are inseparable, he has been given an identity that he will struggle to relinquish. Yet, at the end of the Act, he is discovering that perhaps he should be having some doubts, and perhaps there is something that later he is going to have to contest. But you may agree that, if he so firmly identifies himself with his idea, the weapon being a manifestation of his idea, then that is going to be really rather difficult to give up. We all find it difficult to give up things that we value because they do tend to become a part of us. It is very difficult, perhaps impossible, to give up things as well as other people we value.

5.7 The story so far

In Act 1 of *Landscape with Weapon*, Dan, the dentist, has been disturbed by the defence project that his brother is working on. Dan, however, is a fairly mercenary individual, so he feels that having had the idea, Ned should aim for a good return. The company is keen to exploit Ned's work, but Ned has resisted handing over the IP for his invention because he wants to control who gets access to the weapon system that his work has enabled.

In this Act Ned says weapons are empirical, that is, you don't know what will happen until you use them, and this is a particularly interesting point as we are pursuing the allegory with technology in general. This is actually true of all technology: all technology is empirical in that you do not know what is going to happen to it, and it is impossible for anyone to imagine every way the technology might be used and hence, what benefit or harm will result. Perhaps as a technologist, the best that can be done is to design with the intention of bringing benefit to people, to promote those uses that are expected to bring benefits, to warn of uses that you know will cause harm and to use knowledge of the technology to offer remedies if harmful uses take a grip. Of course, what constitutes harm and benefit and which communities gain and which lose can't be answered in general, but those questions are for the individual technologists to consider.

5.8 Rights

At the beginning of Act 2, Ned is quite explicit about not wanting to bargain over money. It is very clear he is bargaining over his right to control who uses what he sees as his technology, and his rights, he believes, will enable him to keep his weapon out of the hands of administrations that he does not really trust. So, at the centre of all this are the rights that appear to provide the means for Ned to control the distribution of devices embodying his idea, and that will allow him to prevent the distribution of his device to nations he believes will use them to cause harm. In other words, he wants to enter the wider world of politics using the rights to his ideas as an instrument. Incidentally, of course, he also feels that, with the idea being his, if it were materialised and he wanted it to be materialised, is very much a part of his identity.

Activity 23

Read Act 2 of *Landscape with Weapon* and jot down some answers to the following question: what do we mean by ‘rights’?

Comments

If you have ‘rights’, then you're allowed to do something or to stop something happening. It might be human rights, which allows you to do certain kinds of things, or to stop somebody preventing you from doing things. So ‘rights’ imply authority.

Another thing about ‘rights’ is that they accrue to somebody; in the play, Ned, it's Ned's rights we are talking about. They could also accrue to a group. By having ‘rights’ the individual or group benefit, or perhaps prevent harm. It is possible that people might want ‘rights’ to bring benefit when they are attributed to somebody or a group. However, rights may not be beneficial to anyone else, so it is a privilege to have them.

How do ‘rights’ get allocated? How do you get them, if they are a good thing? If you are allocated rights you are given privileges, that is, the allocation of rights is generally performative, that is, it involves a social act that is the result of an event coupled to some social convention. The idea of performative utterances was introduced by the British philosopher John Austin and can be understood as the use of words to bring about change. Someone says you can earn rights but, actually, earning rights is related to an event that is coupled to a social convention because, if somebody has the rights, other people have to respect them. This is often reinforced by some kind of ceremony. For

example, certificates get issued when people have ‘rights’, or a patent gets issued when people are allocated ‘rights’.

In other words, ‘rights’ are a social convention but there is really no compulsion. People who do not respect the convention will disregard the rights. They will show no respect for the assigned authority, and they will not consider helping the accrual of the benefit to the rights holder. In the play, Ned has ‘rights’, that is, ‘rights’ are attributed to him as a result of his having an idea; his ‘rights’ are respected by others or perhaps not in the play. Perhaps as things unfold people do not quite respect the ‘rights’ in the way you would expect.

As I said earlier, ‘rights’ are allocated performatively. An example Austin (1986, p. 5) uses to explain a performative is the marriage ceremony. When people get married, they are asked if they want to get married to the other person, and by saying ‘I do’ they bring about the change in their social status from single to married. In the case of ideas being converted into patents, then there may be some words written that bring about the allocation of rights. Austin says that, for a performative to be effective, it must be part of an accepted procedure, we must all know what is going on. All participants must adopt appropriate roles, and the procedure must be executed correctly, completely and with sincerity. There are, therefore, conditions surrounding a performative. Effectively, what people say performatively, or what they write down, effects a change in relationships. Ned gains his privileges when he acquires, presumably, a patent or some other recognition of his idea.

Performatives are fairly common utterances. Bureaucracies, for example, have rather austere linguistic ceremonies. For example, you fill in forms, which is a rather primitive kind of ceremony. You may also sign an agreement or you may be interviewed. Also, there are committee meetings where somebody says something that transforms the status of individuals. These examples are all rather formal but, of course, there are less benign performatives available, for example, you can start spreading rumours about certain individuals being liars or cheats, and if that's taken up, then that is also performative because it changes the social status of those individuals. The crucial thing is that performatives are grounded in language, so they do not involve any physical action and, certainly, they do not involve violence. They are, however, collective, because they imply social agreement.

In the play, what Ros is trying to do is to get Ned to transfer his rights to the company, and she must persuade him to go through a sort of ritual. He has to sign an agreement that declares he will give up his benefit, his privileges and hand over benefits to the company. You can see that, because there are privileges associated with it, he might want something in return. That is why Ros offers money. But, of course, that fails, so she tries a different tack. She actually talks about the importance of the work to the local community, and that is rather similar to the situation we saw in the play *Last Call*, where the benefit to the community is put forward as why you might do something that may be on the margins of acceptability.

5.9 Ethical reasoning

Now Ned's got three things. He's got the money that is presumably ‘good’. He's got his defence policy, which he thinks is ‘good’. Ros then introduces the well-being of the community. They are all ‘goods’ but each pulls in a different direction. Any judgement that Ned makes has to be based on an aggregation of these things. But, of course, these are quite different kinds of things, they are incommensurate, so adding up these things is not a straightforward proposition. Ros is hoping that Ned's decision would be pushed in her

direction once she adds the idea of the community benefit that, perhaps, Ned had neglected. She is hoping that argument will draw him towards her view of things. But, of course, that does not work either. As a consequence, Ros has to introduce more things to try and bias the argument in her direction.

Ros is trying to persuade Ned and the various things that she brings to bear, which are all of a different kind, but somehow or other they have got to be 'weighed up'. So what does she do? We've got the money, Ned's defence policy, the well-being of the community, all of these are ingredients of the ethical case. Ros accuses Ned of being selfish, and that might be considered 'bad' simply because selfishness is something that community traditions present as being 'bad', a 'bad' trait. So Ros is hoping that 'selfishness' is an element in Ned's final vocabulary, which turns out to be the case as he agrees this is 'bad'. Interestingly, Ros is actually not that convinced herself. Seeing as Ned is certainly unmoved, she goes on to elaborate by talking about responsibilities: Ned's responsibilities to his colleagues, his family and to himself.

We've now got a new ethical component: responsibility. But does 'responsibility' persuade people? Is it an unalloyed 'good'? Ethicists tend to talk about 'duty' rather than 'responsibility', but the notions are related. Actually, these are quite similar to 'rights'. First of all, 'responsibility' or 'duty' couples relationships and actions. There is some relationship, and, if there is a 'duty', then some action is to take place amongst the people in that relationship. 'Responsibility' is about 'right' actions, about 'good' outcomes performed, of course, in the context of a specific relationship. One of the things about 'duties' and 'responsibilities' is that they often involve effort, that is, they are a bit of a burden. By carrying out the 'responsibility' the person who is performing the duty will carry the burden, but the benefit goes to others. So it is tough carrying out a responsibility because you carry the burden for which someone else benefits. It is a similar case with 'duty'.

Because they are tough and someone else benefits, of course, 'responsibilities' and 'duties' are quite often evaded. To encourage people to carry out their 'responsibilities' and 'duties', we often pat them on the back, give explicit approval when they have carried out their 'duty' or 'responsibilities'. That 'pat on the back' can be something that is quite informal, a simple word of gratitude, or it could be something more formal like awarding a medal for carrying out a duty, perhaps a particularly painful duty.

Moore talks about 'duties' (*Principia Ethica,* Chapter V, §89) and says that, actually, some of these things are not really related with ethics. The fact that something may be a bit of a burden might not affect the overall 'good'. If you carry out the 'duty' and 'good' accrues to somebody, overall, the world might be a better place. The fact that it is a burden does not necessarily mean that it is something to be avoided. The business about evading may mean that the world is a worse place. But somehow or other it's not quite got the same emphasis as the 'good' outcome. What G.E. Moore does is that he equates 'responsibility' and 'duty' with 'expediency' in saying that expediency produces a 'good' outcome too. The only difference is that people willingly enter into something that is expedient, whereas perhaps they are a bit reluctant regarding 'responsibility' and 'duty'. From a broad ethical point of view, 'duty' and 'expediency' both imply actions that deliver 'good' outcomes. Of course, 'rights' are the other side of the coin of 'duty' and 'responsibility' because the person benefiting from the 'rights' expects others to bear their 'responsibilities'. But there is nothing particularly special or unique about 'responsibilities' and 'duties' except that they can be a bit of a chore for some people.

So when Ros says that Ned must carry out his responsibilities, it is not so much that it's labelled a responsibility that counts, but what is it that she thinks is a responsibility. But,

again, that does not persuade Ned. She actually makes a personal appeal and talks about the disruption to her way of life if Ned does not sign, so he's got to accept his responsibilities and, if he does not, her way of life will suffer. Interestingly, she equates her life with those of normal people, implying that, if Ned does not sign, then her life will become abnormal, unnatural, possibly unhealthy, and he will be responsible. The words 'natural' or 'normal' do not carry much ethical weight, really. Moore actually says that we must not be frightened by the assertion that a thing is 'natural' into the admission that it is 'good' (*Principia Ethica*, Chapter I, §12). 'Good' does not, by definition, mean anything that is 'natural' and it is, therefore, always an open question.

In short, Ros' argument is very much about persuading Ned that he is responsible to other people. It's a moral persuasion to the benefit of everyone else but him, really, at this point, because if he does get his way he will be gratified by having his idea materialised. So it is all on his side. Since he is not interested in money, she has to bring to bear a much bigger picture, something like an attack on his selfishness, if you like. Ned's arguments are really quite abstract, but Ros' are very much down-to-earth and practical. But I guess Ned has not quite seen that yet. So we've got Ros talking about 'normal' people even though 'normal' doesn't necessarily imply 'good'. Ros is hoping the implication that she will be forced out of a 'normal' life will be taken to be part of a final vocabulary where 'normal' life is equated with 'good'. She is, of course, hoping that Ned will share that vocabulary.

5.10 Conscience

Ned responds with the use of another ethical concept. He feels what he is proposing is 'right', regardless of any relationships at play, and he refers to his 'conscience'. This is perhaps a way of saying, firstly, that he feels very strongly that he is right and, secondly, that any speculation about signing away the IP gives him a great deal of discomfort. This appeal to a 'conscience' is an interesting rhetorical move because it neither requires nor provides any reasoned justification. If you talk of 'a conscience', if you talk about 'your conscience', this is simply a brief account of how you feel, a personal experience, and no one else can access that, so there's no way of arguing against a statement that it is the 'conscience' that is driving you that way.

We looked at Nussbaum's ideas in Section 2 and they provide an interesting background against which to analyse Ned's behaviour. Nussbaum might claim that, when Ned talks of his 'conscience', he is having certain feelings that could be used by him as a guide for further deliberation about the decision facing him. In other words, when the 'conscience' pricks, perhaps we ought to seek an explanation that will help with the constructions of an argument as to why we feel that way.

Nevertheless, Ros turns mention of a 'conscience' into an insult by saying it is moral exhibitionism. Granted, there is no way you can challenge someone's appeal to their conscience, so I do wonder whether that might be quite accurate because, at this point, Ned seems to be pleased to have someone who will listen, and he is simply treating Ros as an audience. It seems to me that he gets carried away with his own sense of righteousness. He is quite unaware of the practicalities of his situation, so his argument remains very abstract. His appeal to 'conscience', however, does not provide much in the way of support for an argument.

It is possible for people to share concerns, and they can react and say their 'conscience' would not allow them to do certain things or act in certain ways. However, to agree about that with somebody and then to start a dialogue is only the beginning of an ethical case. It is not the 'conscience' that gives you the ethical case; it is the deliberation that has been

caused by the prick of ‘conscience’. To say simply that my ‘conscience’ tells me something does not provide conviction to others, unless there are all kinds of gestures and emotions that go with it. But the prick of ‘conscience’ and associated reporting of it is not something that is very powerful as an argument. The deliberation that follows, however, might well be.

5.11 Promises

Having tried various devices to persuade Ned, Ros resorts to her other ‘technical’ approach. She reminds him of his employment contract, which requires him to do his best to exploit his work. A contract, of course, is a form of promise you endorse when you sign it. Signing the contract is performative, it changes the relationships. In this case, it clearly is a promise, it is a promise to do his ‘best’, and that is clearly an ethical matter. This move obviously has a strong influence on Ned because he now agrees to sign away his IP. It is a bit strange at first because he sees the honouring of a promise as a ‘good’ thing (and dishonouring of a promise as ‘bad’), but this does not seem to be an adequate explanation as to why Ned reverses his previously very strongly-held position. He has now agreed to play ball. He does not go quite as far as Ros would like, but he's saying, yes, he will sign.

Activity 24

Take a few moments to think about promises: is keeping a promise a matter of ethics, that is, is it a matter of ‘good’ or ‘bad’?

Comments

The short answer here is ‘not always’. Keeping a promise is not always a matter of ethics because a promise does not have to be something that brings benefits. A promise can be a threat too. It could signal a ‘good’ or a ‘bad’ outcome. Either way, a promise involves others. Also, a promise is inevitably about some future action and outcome, so you might expect those who will benefit or suffer when the promise is fulfilled to recognise the promise and to build their plans around the promise. So a failure to keep the promise will disrupt their plans.

This, however, is not an indication as to whether the outcome will be better or worse. All it says is that the promisee, the person receiving the promise, lacks control over the outcome. The reliance on a promise introduces uncertainty over any benefits that the promisee might receive. But the promise-maker can keep or renege on the promise and, so, affect the outcome. In this way the promise-maker effectively gains control when the promise is taken seriously, as the play illustrates. It cannot be said, however, that keeping or breaking a promise in itself has ‘good’ or ‘bad’ consequences; you have to know what the promise is before you can assess that.

Promises themselves, perhaps, are pretty neutral when it comes to ethics, unless you know what the promise is about. But, of course, if you consistently keep a promise or keep your promises, then what this behaviour can do is to build trust, and that provides a greater degree of security in the relationships where the promises are made. This can be beneficial because it will reduce the anxiety of those who are in that relationship. Promise is a bit like ‘duty’, you can't really say whether these are ethical matters unless you know the content of the promise or the content of the ‘duty’.

Ned seems to be very much persuaded by talk of the contract, and the contract is a bit more than a promise. There is more to a contract than just a promise. The signing of the contract is ceremonial and will involve others as witnesses. If you renege on the promise, then other people will probably know about it if it is a contract. And, of course, contracts contain reciprocal promises. Reneging on a contract can bring to bear punitive action, often backed by the law. When Ned reverses his position, perhaps he is being realistic about the politically-debilitating actions that his contract might trigger. Perhaps he responds because he knows, if he goes against his contract, his power will be diminished and he will not get his political way with his ideas.

So now we've got contracts, promises, rights, duties and responsibilities; all kinds of social bonds that can influence conduct. They are all performative in that they are actions that can bring about a change in behaviour which can have material or psychological consequences. But in themselves, contracts, promises, rights, duties and responsibilities cannot be said to be ‘good’ or ‘bad’ without further knowledge of their demands and context. To say that somebody has broken a contract or broken a promise does not necessarily give them a black mark; you have to know what they promised.

5.12 Interests

There is quite a lot to be said about the play, but in this course I need to be selective. In the conversations that take place, one of the things that happens is that all sorts of interests unfold. There is a catalogue of benefits that could each potentially accrue to a long list of individuals and groups. We have the government that could gain benefits through ownership which would allow it to develop the device, understand threats, prevent development, protect the indigenous industry and retain a credible capability for creating deterrents. Ned can benefit from ownership by controlling the use of the technology, making money, and getting something made that is his. The Americans can satisfy their aversion to certain prejudices and their aversion to art. Colleagues could improve their CVs and win some royalties. The company could make a profit. The community could gain a source of employment. Potential enemies could grab attention through the use of the technology. Families could be fed and schooled. The public could come to feel more secure.

Regardless of whether or not these benefits are achievable, it is obvious that they might motivate the various parties to squabble over the technology without anyone being in a position to judge what the best course of action might be. Everyone has an interest and a long list of ‘goods’ and ‘bads’ associated with those interests, so each of those different parties are likely to come to different conclusions about what is the right course of action. There is no one who is in a position to decide on the best course of action. This means that the business of discussing ethics simply goes on and on. However, of course, there is pragmatism because, usually, a decision has to be made, some action has to be taken, and time is limited. Time, of course, is a very important ingredient that we have not included in all of this, but everybody is short of time, as they are short of information and authority. It is this sort of limitations that are going to close the debate. It is likely that closure will satisfy nobody, and nobody will be able to say whether this was the best course of action. So the business of ethics is something where debate just goes on and on.

As an example of where things are time limited, consider national disasters we've seen like the earthquakes in China, or the floods in the United States. In events such as these,

people run out of time, somebody has to decide and action has to be taken. It may not be the optimum but it is the best that can be done at the time.

In the play, Ned is not presented explicitly as a martyr, but Brooks does talk about martyrdom, which may suggest the notion that Ned is somehow a martyr. The trouble is that martyrs do not always die for causes that people necessarily respect. Ned is a martyr to a cause in that he has actually given up his life to work on his ideas. You can see that he's a workaholic: he has sacrificed his time as well as his relationship with Jamie, his estranged wife. At the beginning of the play, if Dan had not turned up, if that conversation had not taken place, Ned was on the verge of wrecking his relationship with his brother and the rest of his family. Ned was on his way to totally wrecking his life to work on his ideas as his cause. The conversations that take place throughout the play suggest, however, that he later on changed his cause into a political mission to influence who got access to his technology.

Martyrdom is ultimately about drawing attention to one's convictions in the hope that others will come to recognise that those convictions are of value. Of course, it does presume the convictions are, upon examination, worthy. Martyrdom presumes that to dispose of a life is honourable if it is attached to honourable ends. Ned saw his ideas as something honourable and has come to see his stand against handing over control of his idea as honorific. However, Ros punctures Ned's pride by explaining his ideas are worthless without a supportive enterprise provided for by governments. She even goes on to say that the government may take up the rights and not proceed with manufacture.

When you start a job and think about the products that you may be engineering, you have to think about the ethical benefits and the ethical stance you are going to take on it during the product lifecycle, or else you are just jumping with both feet into a situation where you may not understand where you are going to go. This is a lesson, I think, Ned ought to have heard, actually a lesson for young graduates going into their first job. This is one of the things that, perhaps, professionals sometimes do not take sufficiently seriously when they are pleased to get a job. But if they are not careful, they might get into Ned's position.

Ned carries on arguing, and he says that weapons give strength to negotiators, this is what they are all about. But Brooks, obviously, has been involved in plenty of arguments like this and takes the logic one step further, saying that, actually, we need some device to act when the people we are attempting to negotiate with do not have a willingness to negotiate. It is in those circumstances that, according to Brooks, warfare has a role. According to Brooks, having weapons can give people hope. In other words, weaponry becomes a technology of hope, and, if you look at it in that way, as Brooks does, then it comes in on that ‘good’ side of the scales.

At this point, Ned really gives up. But he gives up actually because Brooks gives these lengthy speeches about warfare and asks Ned if he ‘gets’ what is being said. Eventually there is a long silence and Ned says ‘I'm just an engineer’. Ned cannot match the fluency and sophistication of Brooks’ arguments, and although Ned, at one time, would have been very much on Brooks’ side, he would have used arguments couched in quite different terms to those of Brooks. By saying he's ‘just an engineer’, he is admitting that his vocabulary and fluency do not extend into the realm that Brooks has entered. Ned is saying that his final vocabulary, which is relevant to engineering practice, is not a useful tool in the domain of the arguments now being presented, and he simply has to give up frustrated.

We do get Ned sabotaging the prototype. So, although he's signed, he has one more go at scuppering things since, of course, his arguments have failed. He does not have Brooks’ vocabulary and persuasive skills, but he does have technical skills, which give him

authority in that area. In performing the sabotage, he is exploiting the effective skill that he does have. Unfortunately, he is rather a broken man at this stage, so he sabotages the prototype and disappears. Brooks is trying to track Ned down, so he interviews Dan, who is an easier nut to crack because Brooks starts musing over modes of torture, and Dan's imagination takes him away. Dan misunderstands but also capitulates, eventually revealing where Ned is.

5.13 The final Act

In Act 3, Dan and Ned are back in Ned's flat and Ned is showing extreme signs of neurosis and paranoia. Dan can no longer bear Ned's rather dark and erratic behaviour, and he grabs the conversation by suddenly pouring out all the overwhelmingly negative aspects of his life as a dentist, father and lover. Some people might say that ethics is about how to live a ‘good’ life and, clearly, Dan needs a change. He recognises he is not leading a ‘good’ life. He knows all the things that are preventing him from having a ‘good’ life but he is trapped, not physically, but by a collection of social constraints that he cannot shed. So, for Dan, the social constraints are not necessarily ‘good’ but, on the whole, ‘bad’ because he is trapped by those constraints. If we are considering ethics, we need to consider only material benefit, necessarily, but also social psychological benefit.

In a way Dan ‘caves in’ and he exposes his brother in a scene of extraordinary intimacy. Brooks then goes out to Tuscany to see Ned, but there is that wonderful scene of deprivation and, ultimately, Ned comes around to seeing Brooks’ point of view. But the point is that Dan ‘caves in’ and, by doing so, he is ultimately, terribly disloyal to everybody. Perhaps he starts out a bit like that, when all he values is material riches. He does not really have a strong position, except the goal to make money, and in this final scene we begin to see that, actually, he has discovered that there are all sorts of things that his continuous struggle for wealth has wrecked.

There are actually a number of interesting sentences that I have not picked out. One of them is when Ned comes out with a phrase which he attributes to Brooks and says, ‘Everybody thinks they're doing the right thing.’ This is a kind of indicator to us all, I believe, that it is worthwhile, every once in a while, reflecting on whether you are doing the right thing or not. And right at the end, of course, the conversation shifts from Ned's work and he reaches out for the solace of his family. Work has ceased to be his *raison d’être*. He speculates about using his talents in other ways and suggests he might make toys. But he doesn't sound very confident about that and actually seeks assurance about his capability, or, perhaps, the approval of such a project, from his brother, Dan. This speech by Ned actually outlines the ethical situation of technologists so it is worth unpacking a little.

Ned makes a number of statements. He says, ‘The engineer's prime task is to make a machine’ – or I guess the technology – ‘as effective as possible.’ That is the ‘duty’ of the engineer; that is the task. I think most of the developers I've met would agree that that is their job, that they need to make this ‘thing’ effective, the best technology they can. Then Ned introduces the artist's imperative to discover something, and that is an imperative partly because it gratifies the artist if they discover something, and the audience might well be gratified by what the artist presents. But, of course, art also has the potential to transform the way we see things and so bring about changes to the way we live our lives.

So we've got these two things. The developer has a task and the outcome of this task has the potential to change the way we see things. All of this is within the developer's enterprise, which also has the capability to make and distribute what has been discovered

or made effective. Therein lies the big issue. You can have all sorts of bright ideas but, actually, if you make something and distribute it, then you affect many people's lives.

Ned also talks about how technology can come into conflict with personal morality, which I take to mean the morality that is applied outside of the technical task, the kind of every day morality that might be deployed in dealings with your friends or your family. So, as a developer and artist, Ned has come to realise that, once the potentially damaging technology is moved from his development laboratories, it enters a world where he has little or no authority. This generates the clash when the technology, in fulfilling its function, may destroy something that you might well value profoundly.

6 Conclusion

I hope you have found it interesting to look at the various plays I have discussed in this course, not only because they are entertaining but, mainly, because they are instructive and, often, quite compact. What plays can do is to stimulate your own emotions, which, as I argued in the course, is a powerful beginning to ethical reasoning. Drama provides ready-made analogues for exploring experiences, often experiences that you have not had but also experiences you might face yourself. The skilful novelist or playwright helps us to understand, even if in some small way, what we experienced, as though we are transported into another situation. In some cases, as you have seen in this course, drama reveals what it is to be a technology developer and actually illustrates aspects of ethics that the rationalist traditions of engineering and technology conceal. These include the limitations of logical debate or the emotional and very tangible dimension of professional activities: these are facets of professional practice in ICS that are often relegated to being of secondary importance, if acknowledged at all.

Listening to or watching a performance can stimulate your own emotions, so I strongly recommend that you attend theatre performances or listen to radio renderings, to add extra dimensions to your thinking. The examples I have used in this course are only a few amongst many others that can help to guide you in your professional practice, but you may already have come across other relevant plays and novels, or may yet find new ones. Also, you will have noted that, especially in the initial sections, I used several examples taken from newspapers (and online versions of those). I hope that, having studied this course, you will be more aware of ethical statements being repeatedly made in often tacit ways on the media, which should help you develop a more critical approach to text assumedly presented as ‘pure’ reportage.

7 Summary

This course presents an understanding of ‘ethics’ as something related with ‘good’ and ‘bad’. There are other derivative words like ‘optimal’ that might also be used, and there are parochial words which are related to particular communities. When we talk about ethical things, we are liable to confront cultural differences that are reflected in differences in vocabulary. But there are other kinds of differences too. Things have different properties; for example, ‘appearance’ and ‘radiation’ might be two different properties of a radio mast, and somehow or other we have to weigh those up one against another. There are also different kinds of things like ‘fears’, ‘means’, ‘ends’, ‘relationships’, ‘virtues’, ‘pleasures’ and ‘pains’. All of this seems quite incommensurate, so one of the difficulties of ethics is how to put those things together to decide on and justify a course of action.

When combining different kinds of ‘goods’ and ‘bads’, we often get contradictions and, sometimes, ambiguities, so we need to be able to cope with those. Socrates’ solution was to ‘measure’ the ‘goods’ and ‘bads’ and then perform some calculations, which might be a fine idea if we had a way of measuring things in the first place! This, unfortunately, is something which he did not suggest. Wittgenstein, on the other hand, suggests that the way out is to change the language game that we're playing. In other words, if there is a problem with vocabularies and their use, then we need to negotiate a common vocabulary if we're to avoid some of these difficulties.

The course looks at examples taken from professional codes of practice that illustrate those difficulties, suggesting that, whilst codes of practice may offer a guide to action, we can imagine circumstances where the rules in a code of practice contradict one another. Contradictions thus created provide a source of inspiration for the dramatist, but they create real conundrums for professionals and practitioners.

In Section 3 I examined the play *Call Waiting* and suggested that it was essentially about relationships, their construction, maintenance and development. The play illustrates that, when we are constructing or maintaining relationships, we engage in actions, and those actions can also be ‘good’ or ‘bad’.

Although the context of the play was technological, and it was a technologist who was in trouble, the technologies themselves didn't add too much to the ethical situation. All they did was to enable people to connect, so, although they brought together different sorts of people, they didn't necessarily alter the kinds of discussions these people had. Ironically, in spite of all the communication devices available throughout the play, none of the characters quite knew what was going on, so the information technology was not delivering information. Nevertheless things happened, relationships changed and people were encouraged or discouraged to do things. What brought about those changes were people's utterances, i.e. what they said, and in what they said there were emotions conveyed, and, sometimes, aroused in other people.

Regarding emotions, I looked at Martha Nussbaum's work and her rather special slant on emotions. Partially based on the Stoics’ view of emotions, Nussbaum presents a case in which emotions are viewed as being indicative of the value of things. In contrast with the Stoics, however, Nussbaum stresses the contribution that emotions make to our knowledge, and she wants to integrate the experience of emotions into our judgements.

Of course we are applying all of this to the context of Information and Computer Sciences, so we're talking about the professional practice of engineers, programmers and developers. Indeed, these technologists make ethical evaluations and judgements – that is partly why they are employed. However, they are informed by a relatively ill-assorted

mixture of theory, regulations, experiments, common knowledge and opinions. So what is the role of emotions in this practice? Emotions act as a signpost that guides the synthesis of all the other bits and pieces that we collect that are often disconnected. But those bits of evidence, when we assemble them, will provide the firm course of action of which emotions can only be an indicator. Consequently, we should see emotions as pointing to a conclusion, to what it is we value in a situation, but we still have to make the case well to convince others. In short, emotions are imprecise, but they are a necessary constituent of the technologists' judgements.

Section 4 looks at the play *Last Call*. The play is very rich in ethical issues, and one of the most interesting points made is that, whilst there are many 'big' ethical questions worthy of discussion and investigation, it seems to be in the everyday, routine conversations and dealings of people that ethical questions get asked and answered, even if this is not clearly recognised.

A major ethical issue tackled in the play is loyalty: giving preference in some way to one group, and, by doing so, denying another group something that is being given to the privileged group. There are questions of loyalty to an employer, to work colleagues and to family, and the play presents conflicts of loyalty to these different groups that can occur routinely in anybody's life. The play also raises broader questions regarding the legitimacy of war, torture, surveillance, blackmailing and theft.

Section 5 looks at Joe Penhall's *Landscape with Weapon*. The play indeed provides a powerful allegory to technology, generally, rather than being relevant only to the weapons industry. The play raises questions concerning 'rights' (including intellectual property rights) and various issues involved in ethical reasoning, including the notions of 'conscience', 'promises', 'interests' and 'identification'. The play illustrates some of the basic aspects of ethical reasoning, including that judgements are personal and bounded by such practical matters as the time available for action and the attention that is likely to be given to the judgement. Also, the play shows that judgements will always be biased but, sometimes, by factors that are avoidable, such as an overbearing pride or ignorance. Section 5 also looks at some of the rhetorical devices employed in the exchanges of ethical positions that take place in the play. Crucially, the section introduces Austin's notion of performatives to explain the ways in which rhetorical strategies are deployed to accomplish specific moves of tentative persuasion. The ability to persuade is presented in the play as core to the practice of developers and technologists.

In short, the course suggests that drama and dialogue have a few lessons of relevance to practitioners in ICS as well as technologists, generally, and these are the three principal notions:

- expand your vocabulary
- recognise the limit of your authority
- recognise that technology is for people and they have preferences and interests.

Keep on learning

Study another free course

There are more than **800 courses on OpenLearn** for you to choose from on a range of subjects.

Find out more about all our free courses.

Take your studies further

Find out more about studying with The Open University by visiting our online prospectus.

If you are new to university study, you may be interested in our Access Courses or Certificates.

What's new from OpenLearn?

Sign up to our newsletter or view a sample.

For reference, full URLs to pages listed above:

OpenLearn – www.open.edu/openlearn/free-courses

Visiting our online prospectus – www.open.ac.uk/courses

Access Courses – www.open.ac.uk/courses/do-it/access

Certificates – www.open.ac.uk/courses/certificates-he

Newsletter – www.open.edu/openlearn/about-openlearn/subscribe-the-openlearn-newsletter

References

Austin, J. (1986) *How to do things with words*. Edited by J. O. Urmson and Marina Sbisà. New York: Oxford University Press

Engineering Council UK (n.d.) *Statement of Ethical Principles*.

Frayn, M. (1965) *The Tin Men*. London: Faber and Faber

Hare, D. (2005) *The Permanent Way*. London: Faber

Hims, K. (2006) *Call Waiting*. Producer S. Davies, BBC Radio 4. Broadcast 9 May 2006

Giddens, A. (2006) *Sociology* (5th Edition). London: Polity

Harrison, H. and Minsky, M. (1992) *The Turing Option*. London: Penguin

Hume, D. (1986) *A Treatise of Human Nature*. Edited by Ernest C. Mossner, Penguin Clasics.

Institution of Engineering and Technology (IET) (2007) *Rules of Conduct*.

IEEE (2003, August, last modified) *Code of Conduct*. Available online at http://standards.ieee.org/resources/development/wg_dev/code_conduct.html

Janik, A. (1995) 'Rameau's nephew. Dialogue as Gesamtkunstwerk for enlightenment'. In *Skill, Technology and Enlightenment: On Practical Philosophy* (pp.57–74). London: Springer

Keller, J. (2005) 'Lead-free solder: A train wreck in the making'. *Military & Aerospace Electronics* October 2005. Available online at http://mae.pennnet.com

Latour, B. (1999) Pandora's Hope. Essays on the reality of science studies. Cambridge, Massachusetts: Harvard University Press

Miller, A. (1947) (2001) *All my sons*. London: Penguin

Moore, G. E. (1903) *Principia Ethica*. Cambridge: Cambridge University Press. omplete text available online at http://fair-use.org/g-e-moore/principia-ethica/

Nussbaum, M. (1998) 'Emotions as judgments of value'. In *Comparative Criticism* v. 20 pp. 33–62). Cambridge University Press. Limited preview available online at http://books.google.co.uk/

Ogunseitan, O. A. (2007) 'Public Health and Environmental Benefits of Adopting Lead-Free Solders'. *Journal of the Minerals, Metals and Materials Society* (*JOM*) v. 59 n.7, p.12–17

Penhall, J. (2007) *Landscape with Weapon*. London: Methuen

Plato (n.d.) *Gorgias*. Translation available on the Perseus Digital Library, online at

Plato (n.d.) *Meno*. Translation available on the Perseus Digital Library, online at

Plato (n.d.) *Protagoras.* Translation available on the Perseus Digital Library.

RFC 793. *Transmission Control Protocol*. J. Postel. September 1981. Available online at http://tools.ietf.org/html/rfc793

RFC 896. *Congestion control in IP/TCP internetworks*. J. Nagle. January 1984. Available online at http://tools.ietf.org/html/rfc896

RFC 1122. *Requirements for Internet Hosts – Communication Layers*. R. Braden (ed.). October 1989. Available online at http://tools.ietf.org/html/rfc1122

RFC 2001. *TCP Slow Start, Congestion Avoidance, Fast Retransmit, and Fast Recovery Algorithms*. W. Stevens. January 1997. Available online at http://tools.ietf.org/html/rfc2001

RFC 2309. *Recommendations on Queue Management and Congestion Avoidance in the Internet*. B. Braden, D. Clark, J. Crowcroft, B. Davie, S. Deering, D. Estrin, S. Floyd, V. Jacobson, G. Minshall, C. Partridge, L. Peterson, K. Ramakrishnan, S. Shenker, J. Wroclawski, L. Zhang. April 1998. Available online at http://tools.ietf.org/html/rfc2309

RFC 2481. *A Proposal to add Explicit Congestion Notification (ECN) to IP*. K. Ramakrishnan and S. Floyd. January 1999. Available online at http://tools.ietf.org/html/rfc2481

RFC 2581. *TCP Congestion Control*. M. Allman, V. Paxson, W. Stevens. April 1999. Available online at http://tools.ietf.org/html/rfc2581

RFC 3390. *Increasing TCP's Initial Window*. M. Allman, S. Floyd, C. Partridge. October 2002. Available online at http://tools.ietf.org/html/rfc3390

Rorty, R. (1989) *Contingency, Irony and Solidarity*. Cambridge: Cambridge University Press. Preview online via Google Books at http://books.google.co.uk/

Shaw, G. B. (1907) *Major Barbara*. Complete script available.

Sophocles (n.d.) *Antigone*. Synopsis available online at ; complete text available

Walker, M. (2006) *Last Call*. Producer M. Ward-Lowery, BBC Radio 4. Broadcast 10 May 2006

Wittgenstein, L. (1967). *Remarks on the Foundations of Mathematics*. Edited by G. H. von Wright, R. Rhees, G. E. M. Anscombe. Basil. Oxford: Basil Blackwell

Wittgenstein, L. (1992, 3rd edition) *Philosophical Investigations*. Translated by G. E. M. Ascombe. Oxford: Blackwell

Acknowledgements

This content is made available under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 LicenceSee terms and conditions. Users are responsible for adhering to any terms and conditions which may govern use of these sites.

This course has been created by Prof. John Monk and Dr. Giselle Ferreira from the Open University's Department of Communication and Systems with the support of a grant from the Higher Education Academy (HEA) Subject Centre for Information and Computing Sciences (Web). The course is based on a framework for teaching ethics developed by Prof. Monk and capitalises on the lessons learnt on a trial course run in 2008 by the authors with the support of the Open University's Centre for Open Learning of Maths, Computing, Science and Technology (COLMSCT –), part of the HEFCE-funded Open CETL.

The authors would like to express their profound gratitude to the participants in the 2008 trial. We are thankful for the many things learnt in discussion with them, lessons that we have tried to incorporate into this course, and we are also grateful for their agreeing to share openly some of the video material created during the trial.

Plato (n.d.) *Protagoras*, version annotated by Prof. John Monk based on original translation made available by the Perseus Digital Library.

Plato (n.d.) *Meno*. Version annotated by Prof. John Monk based on original translation made available by the Perseus Digital Library, available online at

Plato (n.d.) *Gorgias*. Version annotated by Prof. John Monk based on original translation made available by the Perseus Digital Library, available online at

Course image: @sage_solar in Flickr made available under Creative Commons Attribution 2.0 Licence.

Call Waiting by Katie Hims. A BBC Radio 4 and Open University Afternoon Play first broadcast 9 May 2006.

Last Call by Mike Walker. A BBC Radio 4 and Open University Afternoon Play first braodcast 10 May 2006.

Don't miss out:

If reading this text has inspired you to learn more, you may be interested in joining the millions of people who discover our free learning resources and qualifications by visiting The Open University - www.open.edu/openlearn/free-courses