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## Using drama to introduce ethics to technology students and practitioners

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# USING DRAMA TO INTRODUCE ETHICS TO TECHNOLOGY STUDENTS AND PRACTITIONERS

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## INTRODUCTION

This poster describes the use of Joe Penhall's play *Landscape with Weapon* as a resource to teach ethics to students and practitioners in technology. *Landscape with Weapon* is a play in three acts that revolve around issues confronting an engineer who works in the weapons industry. The play raises a number of broad questions concerning intellectual property rights, duty and responsibility in professional conduct, amongst other ethical issues. Crucially, however, although the play raises 'big' questions concerning technological development, it is in the portrayal of relationships between individual characters each with their own personal ethical stance, and in the development of these relationships through conversations and outbursts that vital ethical questions arise.

Although it is not always clearly recognised, it is in the everyday, routine conversations and dealings of people that ethical questions are refined, developed and, on occasion, answered. Accordingly, such dialogues influence action and guide conduct. Rather than focusing on the formulation of theory, a play can demonstrate how ethical stances fare when placed alongside one another. Also, a play encourages the audience to empathise with characters thus inviting the audience to examine their own ethical positions through their reactions to the dialogue, gesture and action set out in the play script. In short, a suitable play such as 'Landscape with Weapon' can function as an allegory representing issues and questions of relevance to an audience of practitioners in a variety of areas of technology development.

'Landscape with Weapon' provides an example of one amongst several plays and dialogues used as resources for teaching ethics in the Unit *Introducing Ethics in Information and Computer Sciences* (working title), currently under development with the support of a grant from the HEA Subject Centre for ICS. The Unit, a self-contained multi-media course, will be made available, for re-use and re-purposing under a Creative Commons License, on the LabSpace (<http://labspace.open.ac.uk>), the experimentation site of the Open University's open content initiative OpenLearn (<http://www.open.ac.uk/openlearn>).  
KEYWORDS: Ethics; professional practice; drama; rhetoric; emotions; ethical reasoning



## INTRODUCING ETHICS IN ICS

### Unit overview

Ethics is an established area of academic interest, but it is only fairly recently that the relevance of ethics to 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.

*Introducing Ethics in Information and Computer Sciences* explores the idea that drama and dialogue provide powerful tools to help ICS students and professionals to identify, discuss and understand ethical issues in their professional practice. The core of the Unit 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 Unit 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.

The Unit development has capitalised on the lessons and feedback gathered during a trial course run by the authors in 2008 with a small group of volunteers using FM (FlashMeeting), the Web 2.0 videoconferencing tool available on OpenLearn. The Unit will be available shortly in various formats for download and reuse within a Creative Commons License.



### Theoretical grounding and terminology

G. E. Moore on 'ethics' (Moore, 1903)

R. Rorty on 'final vocabularies' (Rorty, 1989)

L. Wittgenstein on 'language games' and the use of 'contradictions' (Wittgenstein, 1967; 1992)

M. Nussbaum on 'emotions' (Nussbaum, 1998)

### Some lessons

The unit capitalises on lessons that drama and dialogue offer that are of relevance to practitioners in ICS as well as technologists, generally. These include: expand your final vocabulary; recognise the limit of your authority; recognise that technology is for people and they have preferences and interests.



## LANDSCAPE WITH WEAPON

### An allegory

*Landscape with Weapon* centres on the development and exploitation of a weapon system. However, it can be viewed as allegory for any technology inasmuch as any technology has the potential to cause harm. Any weapon system will inevitably cause fatalities if used whilst, in many cases, the likely potential harms of different pieces of technology are not necessarily fatalities. But there can be simple things like 'visual intrusion' explored in the 'Ethics' video, 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 itself 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.

### Ethical stances

As a dentist, Dan meets his customers face-to-face while he performs his work, and his professional skills put him in control of the immediate outcomes of his work. On the other hand, Ned and technologists in general do not normally meet the users or, perhaps, 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 yet to be 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.

This also implies that, to ensure a 'good' outcome, the technologist has to have some authority over the technology users. That is 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.

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 technologists are rarely face-to-face with the customer and don't have the degree of authority they might perhaps want.



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Landscape with Weapon

### Rights

Amongst the many ethical questions raised in *Landscape with Weapon*, 'rights' figure prominently including, in particular, questions concerning Intellectual Property Rights (IPR).

'Rights' are a social convention but there really is no compulsion, no way to guarantee the convention is respected. In other words, 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 or not by others in the play.

Ned's assumption is that those that have the idea have IPR, the IPR has value and, therefore, any proceeds accrued should be due to the person who has the idea.

When it comes to patents, the person having the idea is acknowledged, but the only source of income is the expression of the idea, which will usually require the financing, development and manufacture of a product and involve a wide range of skilled people. However, Ned persists in believing the intellectual property is the property of the person who put in the intellectual effort.

### Synopsis

The play revolves around the issues faced by Ned, an engineer who has created a novel technology originally envisaged for surveillance but eventually construed as a weapon of mass destruction. The play begins with a powerful conversation between Ned and his brother Dan, a dentist, when Ned starts to confront not only the potential implications of his invention, but also his own motivations and feelings towards this technology. As the play unfolds and other characters appear, Ned is led towards a changed outlook on technology and the professions who create it.

### Relationships: does mum know?

The beginning of the play presents a fairly naïve Ned, who initially believes himself to be in control. He is clearly very proud of his intellectual achievements and less concerned with money than his brother seems to be. 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, accordingly, the potential of different ethical positions.

### In the end

Ned makes a number of statements in the final act. He says, 'The engineer's prime task is to make a machine' - or, perhaps, the technology - 'as effective as possible.' That is the 'duty' of the engineer; that is the task. Perhaps most developers would agree that this is their job, that they need to make 'systems' or 'devices' effective, the 'best' technology they can.

However, Ned then introduces the artist's imperative to *discover* something: a discovery that gratifies the artist directly and/or indirectly, if the audience betrays its satisfaction with 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. In the context of technology development, this implies that the developer may merely provide gratification, but also has the potential to change the way we see things. All of this is within an industrial complex, which may have the capability to make and distribute what has been discovered. Therein lie big ethical issues.

Ned also talks about how technology can come into conflict with personal morality, which we 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 friends or family. 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 we might well value profoundly.

