**INTRODUCTION**

The poster describes the use of Joe Penhall’s play Landscape with Weapon as a resource to teach ethics to students and practitioners. The play is a 3 acts in plays that revolve around issues confronting an engineer who works in the weapon development industry. He has a number of broad questions concerning intellectual property rights, duty and responsibility in professional ethics, and concerns regarding the rightness of things. Although the play raises by questions concerning technological development, it is a study of relationships between individual characters each with their own personal ethical stance, and in the development of these relationships through conversations and outcomes that vital ethical questions arise.

**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 particularly in response to these requirements, new pedagogies for teaching and learning these topics are gradually emerging.

Introducing Ethics in Computer and Information Sciences explores the idea that drama and dialogue provide powerful tools to help students and professionals 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 concerning the rightness of reference to professions. The examples also represent different styles of argumentation and, hence, illustrate the relevance of philosophical and ethical theory in ICS. Although the Unit introduces some ideas taken from academic texts in the area of ethics, it does so to provide familiar terminology 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 2006 with a small group of students. Work on the Unit is ongoing as video conferencing tool available on OpenLearn. The Unit will be available shortly in various formats for download and reuse within a Creative Commons License.

**LANDSCAPE WITH WEAPON**

An allegory

Landscape with Weapon centres on the development and exploitation of a weapon system. Ned, on the one hand, can be viewed as the person whose 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 system. However, it can be viewed as allegory for any technology inasmuch as any technologists in general do not normally meet the customer and don't have the degree of authority they might perhaps want.

Although it is not always clearly recognised, it is in the everyday, routine, and mundane discussions and dealings of people that the ethical questions are raised and developed and, on occasion, answered. Accordingly, such dialogues influence advice and guide conduct. Rather than focusing on the formulation of a play that might enable us to examine our own ethical positions through their reactions to the dialogue, general and abstract points made in the play script. In short, a study 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.

**Theoretical grounding and terminology**

G. E. Moore on ‘ethics’ (Moore, 1903)

R. Rorty on ‘final vocabularies’ (Rorty, 1989)


M. Nussbaum on ‘emotions’ (Nussbaum, 1998)

Some lessons

The unit concludes 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.

**Synopsis**

The play revolves around the issues faced by Ned, an engineer who has created a novel technology, originally envisaged for surveillance but eventually constructed as a weapon of mass destruction. The play begins with a powerful conversation between Ned and his brother, a dentist, where 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 naive Ned, who initially believes himself to be in control. He is clearly very proud of his intellectual achievements and less concerned with more than his latest invention. 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. In other words, people who do not respect the convention will In other words, people who do not respect the convention will

Ned makes a number of statements in the final act. He says, ‘The engineer’s prime task is to make a machine.’ In the stage trigger questions concerning Intellectual Property Rights (IPR).

**Rights**

Amongst the many ethical questions raised in Landscape with Weapon, ‘Rights’ figures particularly, including, in particular, questions concerning Intellectual Property Rights (IPR). ‘Rights’ are a social convention but there really is no computation, 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 rights, and they will not consider helping the accuser of the right to the holder of the right. In play. Ned has rights, that is, rights are attributed to him as a result of having an ‘idea’. His rights are respected by not others in the play.

Ned’s assumption is that those that have the idea have IPR, the IPR have 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. Furthermore, the company that employs the developer and manufacture of a product and involve a wide range of skilled people. However, Ned persists in believing that he has the exclusive property and control over the intellectual effort.

**REFERENCES**


ACKNOWLEDGMENTS: We are indebted to the HEA Subject Network for ICS, OpenLearn and COLSTE for their support at various stages of the work described here. We are also deeply grateful to the participants in the 2008 OpenLearn trial.