Ethics in Science and Art...



Can you tell us what "Ethics" are or what it means?



Ethics in Science and Art - A Definition?

- Ethics is concerned with:
 - Right/wrong, good/bad, fair/unfair, responsible/irresponsible, obligatory/permissible, praiseworthy/blameworthy.
- It can make us feel:
 - Guilt, shame, indignation, resentment, empathy, compassion, and care.
- It is interested in a person's character as well as how they behave.
- It addresses matters of public policy as well as more personal matters.
- It draws strength from the world we live in:
 - established practices, law, religion, and individual conscience.
- It can also be applied to each of these sources of strength!
- It is complex, difficult and controversial and cannot be concisely and clearly defined.
 - Yet we all have a good grasp on what it is about.



Can you think of an example where Ethics are important?



Science or Art? Does it matter?

Gunther von Hagens - Body Worlds



Gunther von Hagens - Body Worlds

- The Body Worlds exhibition first opened in 1995 and has now been seen by millions of people all over the world.
- Prof von Hagens says that the main goal of the exhibition is health education and to show people how the human body works.
- But not everybody agrees...



Gunther von Hagens - Body Worlds

 Early versions of the exhibition contained a figure called 'Drawer Man':



 Many people compared 'Drawer Man' to works by the artist Salvador Dali

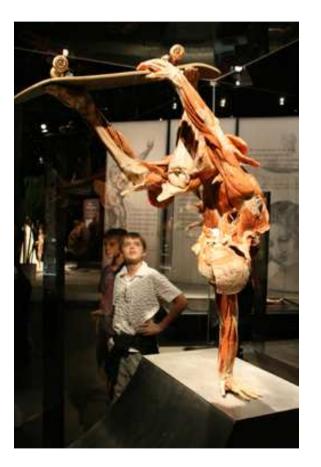




 So is this an educational science exhibition or a publicity-seeking art exhibition?

Body Worlds - What's The Problem?

- Why are there ethical issues surrounding this exhibition?
- Because there are real human bodies and therefore people involved





Body Worlds - Some Facts

- All the people whose bodies feature in the exhibition agreed to donate their bodies before they died.
- All of the figures in the exhibition are anonymous.
- Visitors to the exhibition are told in advance that some people may find some of the figures disturbing.
- You have to pay to enter the exhibition (sometimes ticket prices are quite high).
- Some of the organs displayed in the exhibition came from bodies von Hagens bought from medical institutions.
- Gunther von Hagens is now a celebrity and appears regularly on TV.



Body Worlds - Ethical Issues

Gunther von Hagens is exploiting people by displaying their bodies in this way.

What do you think?



Body Worlds - Ethical Issues

The Body Worlds exhibition is less about explaining human anatomy and more about shocking the audience and raising the profile of Gunther von Hagens

What do you think?



Genetics, DNA and Cloning

A whole new world of opportunityor "Playing God"?



Monozygotic Embryos:



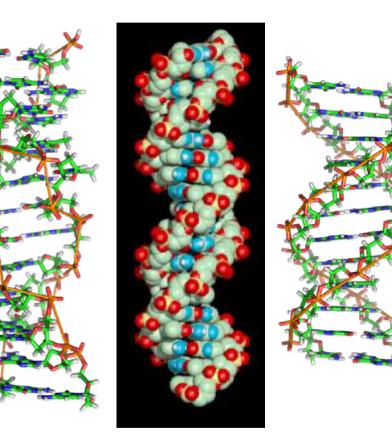






DNA – The Key to Cloning:

- DNA can be thought of as a very long genetic code that provides a blueprint for all living things.
- Our own blueprint is unique it is derived from DNA from both of our parents together with random individual changes.
- The uniqueness of DNA means that the police can use it to track and catch criminals and it can be obtained from very small amounts of what we leave behind...



DNA – The Key to Cloning:

- Identical Twins are an example of natural clones.
- Plants replicate using a form of cloning.
- Dolly the sheep (or Lamb 6LL3 as she was originally known) is a very famous genetically engineered clone (not the first!)
- She was created using a cell (or DNA) from another adult sheep.
- This proved that DNA from a specific body part could be used to create a whole new animal



The Benefits of Cloning:

- Cloning animals might be a good idea:
 - To help with mass manufacture of food or medicines, transplant organs.
 - Replace pets or endangered species.
 - (This has already been attempted with the gaur a wild ox).
- What about human clones?
 - So far no-one is talking about cloning a whole person. And no-one has verified that a human embryo has been successful cloned – although claims have been made.
 - Could lead to "perfect" organs for transplanting or skin for serious injuries.
 - Can lead to new cures for illness and disease.
 - Could help childless couples.



The Ethics of Cloning:

- 98% of cloning efforts fail.
- Survivors often have other problems.
- Dolly died young at about 6 years when a healthy sheep can live for twice this or longer - although this was from a natural disease...
 - Tests while Dolly was still alive revealed that her DNA was older than her actual age (older than her actual body), scientists feared she might die young.
 - A post-mortem revealed she also suffered from arthritis.
 - None of this confirms she died when she did because she was a clone but it does raise questions.
- What if someone does clone a human?
- What about 'designer babies'?
- Compare with 1978s first 'test tube' babies.





Cloning will enable us to cure many diseases and provide transplant organs on demand.

What do you think?





Cloning isn't natural and we should leave well alone.

What do you think?



Damien Hirst: The Butcher Shop Series Is it Art?



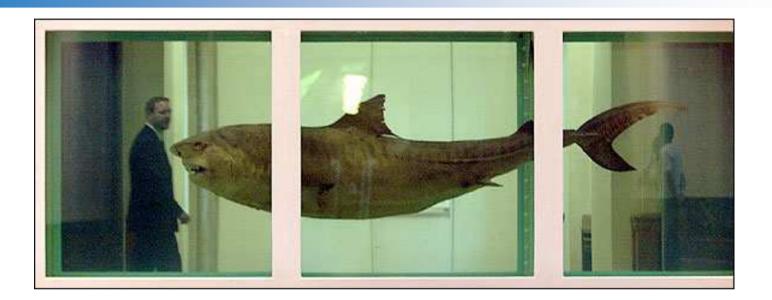
Damien Hirst - Butcher Shop Series

- Damien Hirst was commissioned by Charles Saatchi to make, "whatever he wanted".
- The Physical Impossibility of Death in the Mind of Someone Living is created:
- A shark in formaldehyde in a tank
- Costs £50,000 (£6,000 for the shark)
- Hirst is nominated for the Turner Prize.





Damien Hirst - Butcher Shop Series



"The Physical Impossibility of Death in the Mind of Someone Living"

Sold in 2004 for \$12million



Damien Hirst - Is it art?

- Due to deterioration of the original 4.3 m tiger shark, it was replaced with a new specimen in 2006.
- It is on display at the Metropolitan Museum of Art in New York City one of the world's leading art galleries.
- Is this still the same artwork? Or a copy? Or even a fake?
- Where is "the art" the actual piece or the idea that results in the piece?



Is it art? - Ethical Issues

These artworks make us consider death in a confrontational way that traditional art cannot achieve.

What do you think?



"Autopsy with brain out"



Is it art? - Ethical Issues

Damien Hirst's artwork is more about gaining notoriety and making money than creating good art.

Many of his pieces have been created by his assistants and not by Hirst.



What do you think?

The most expensive artwork sold by a living artist - £50million



Me, Myself and MRI – Ethical Issues...

- I don't agree with artists and students being given access to MRI scanners when there is such a long waiting list on the NHS.
- I don't think it's right that peoples' brains and personal information should be exhibited as part of an art exhibition.
- I don't see how this project and the exhibition are going to help people understand more about MRI.

