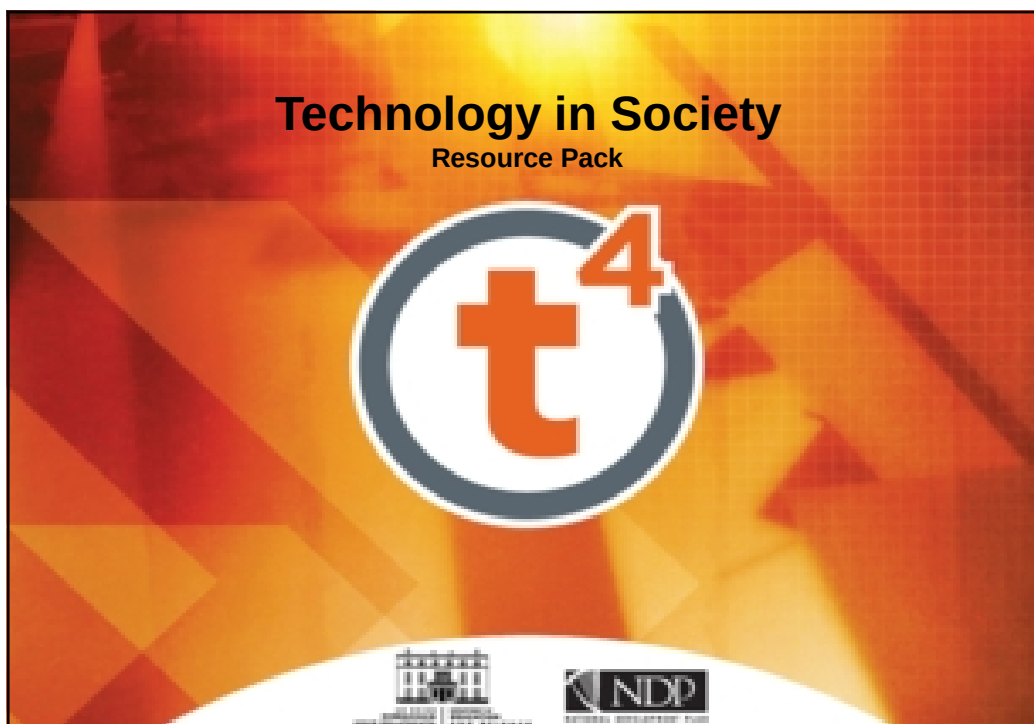
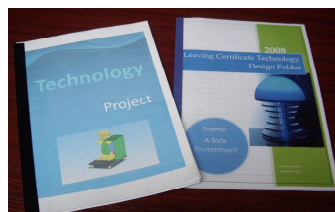




Technology in Society – Technology Syllabus

Syllabus – Nature of Technology Education

....'It is equally important that students gain an appreciation and understanding of the complex interface between technology and society. As citizens they should have the capacity to enter discussion about, and make personal judgements on, issues related to the impact of technology on their own lives, on society and on the environment'.



Syllabus Objectives

....Successful participation in the course should result in improved student attitudes to self and increased awareness of the impact of technology on the social and environmental aspects of today's world.

Technology in Society – The next phase of Design & Technology



- Self Powered Design
- Humanised Technology
- Socially Conscious Products
- Non - Invasive Technology
- User Interface Design
- Usability



Technology in Society – Definition of Design

Good design is design which adds VALUE.....

- ..Adds Value to the user's quality of life
- ..Adds Value to the user's experience
- ..Adds Value to the task
- ..Adds Value to the global community
-Socially Conscious Design



Fact sheet: Trevor Bayliss

Technology in Society – Impact of Technology Development?

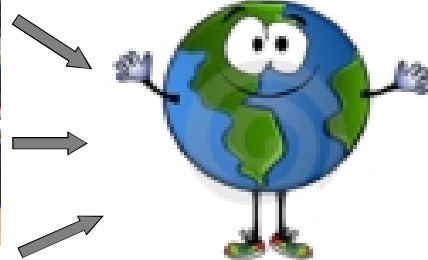


India is a nation of 1.1 billion people, with an overall density of 336 people per square kilometre.



Technology in Society: Objective and Format of the Pack

The objective of this resource material is to communicate to students the social, moral and ethical responsibility associated with their Design and Technology decisions.



- This is not an additional teaching section but one which should **Permeate** through the **Technology Curriculum**.
- Tasks: Discussion Topics, Prompt Questions, Research Tasks, Case Studies, Fact sheets, Projects, Pod casts

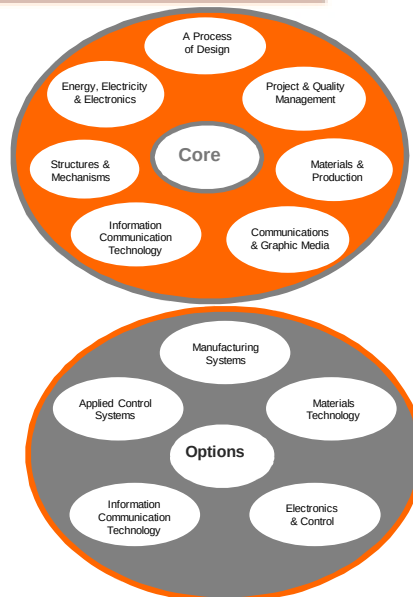
Technology in Society – Questions this session will address...

- How can one introduce to students the concept of 'moral and social responsibility' within design?
- Is this module an additional aspect of the curriculum or is it part of each section?
- What is meant by the term, 'Socially Conscious and Humanised Design'?
- How can one adopt a sustainable approach to design and manufacture?
- What is meant by the term, 'Non Invasive Technology' and 'Self Powered Technology'.
- What are the positive and negative implications of developments in technology on global societies and on the environment?

Technology in Society – The Process of Design

CURRICULUM TOPICS

- A Process of Design
- Design Brief
- Identification & Analysis of brief
- Recognition of Constraints
- Investigation & Research
- Generation of Ideas
- Presentation of Ideas
- Making & testing
- Evaluation

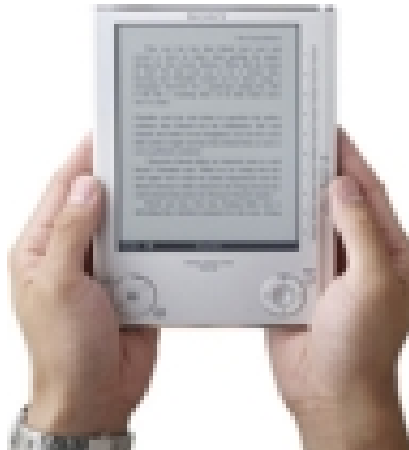


Technology in Society – Humanising Design & Technology

Turnover E-Reader



Sony E-Reader

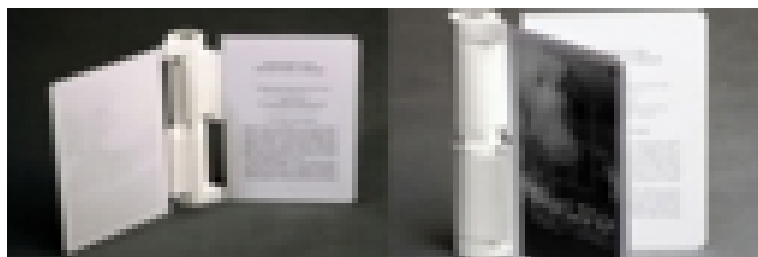


Technology in Society – Humanising Design and Technology

Plastic Logic, a plastics manufacturing company who developed a lightweight, display flexible plastic with a 170 degree viewing angle. The e-reader is designed by Timothy Yeoh.

Human Centred Design

- The electronic book is not a new invention however, Yeoh focused on the ritual of reading, how turning a page is an accomplishment for the reader and how scrolling down an electronic page relates to work as opposed to leisure.
- As you turn over the page, the second page of text refreshes to read like a book. The user can even fold down the pages as you would in a standard book.



Technology in Society – Self Powered Design

- Eco Torch Designed by Trevor Baylis
- Wind up LED torch and mobile phone charger €44
- Eco Media Player designed by Trevor Baylis
- Wind up and rechargeable video and music player
- 1 minute of winding – 40 minutes of play



Technology in Society – Eco Design Recharging Unit

Solio – Solar Charger €110

- Designed by Disruptive Technology
- Charger unit for iPods, mobile phones, laptops
- Folds up into a palm size unit to transport



Technology in Society – Social, Economical Design

Minimalist Das Park Hotel Designed by Andreas Strauss



- The concept was to provide easy access sleeping unit for those with smaller budgets. Concrete Pipe, 2M Diameter, Self Contained, Acoustically Sound, Safe, Internet Access
- Pay what you wish Concept...

Technology in Society – Use and Reuse Design

The Tripp Trapp Childs Chair

- Iconic chair design by Norwegian Designer Peter Opsvik.
- The chair's seat pad and footrest can be adjusted to allows user from infants to adults to use it comfortably.



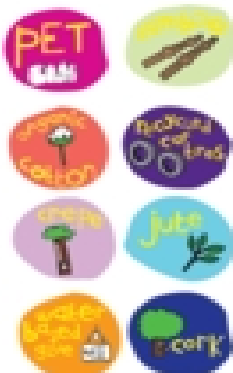
Socially
Conscious
Design
Usability

A product which is designed for longevity
....it adapts to the user's changing ergonomic and social needs

Technology in Society – Sustainable Design Concept



Technology in Society – Sustainable Design Company

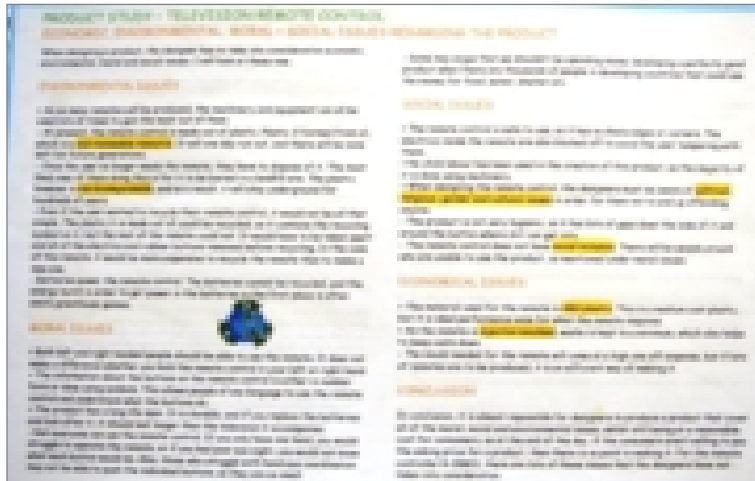


- Company ISO 9001 certified
- High focus on Quality, Human Rights. Staff Happiness
- Product 100% sustainable.
- Recycled car tires for outsoles
- Shoe insoles made of recycled plastic bottles
- Shipped in cornstarch biodegradable bags



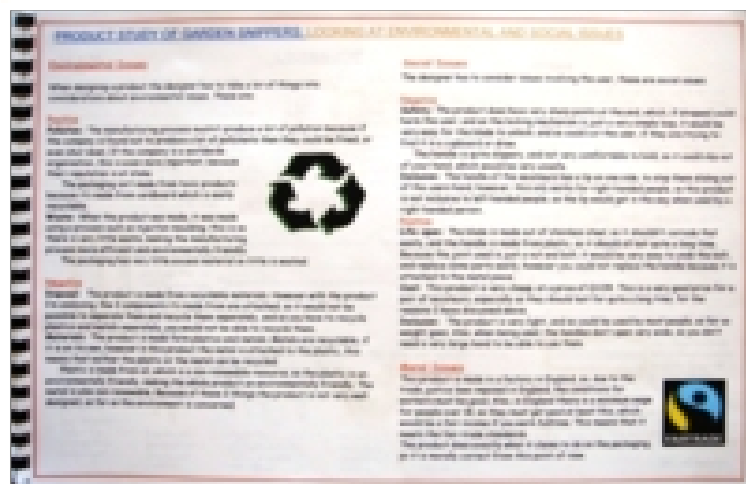
Technology in Society – Design Research Task

Task: Choosing a product design create a research sheet which explore the environmental, social and moral factors associated with the design.



Student Example: 3 subsections Environmental, Social, Moral and Final Conclusion

Technology in Society – Design Research Task



Student Example: Research project / 3 subsections Environmental, Social, Moral.

Technology in Society – Design Research Task



Student Example: Research project / 4 subsections Environmental, Social, Moral and Economic

Technology in Society – Design Related Student Tasks

Group Discussion Topics

- Who is responsible for a Design: The Government, Designers, Consumers, Manufactures or Retailers?
- Who is responsible for overseeing/ controlling/ monitoring advancements in Design and Technology?
- Discuss the term, 'Throwaway Society' and how as consumers we contribute to this.
- How have consumer' expectations of product standards affected the world's growing landfill?

Technology in Society – Design Related Tasks

Task:

1. Using an existing technology project, work through the following questions to assess the project's social, moral and environmental attributes.
2. Following this, use sketches and annotation to modify and improve the design's sustainability.

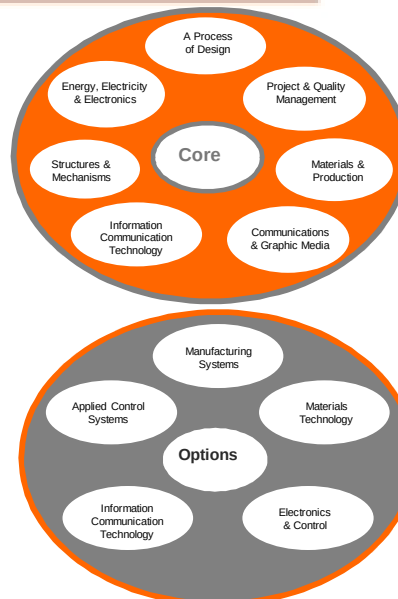
The Design Stage / Checklist

- Does the design add value to the user's life, enhance the user's experience?
- Can the design be disassembled easily for recycling?
- Can component parts be reused?
- Can the product be adapted to different users...Peter Opsivk chair
- Does the design or product require energy to function?
- Is this energy efficient and environmentally friendly?
- Can replacement parts be purchased?Nokia Phone batteries
- Have you considered the design's manufacture, transportation, packaging, marketing?

Technology in Society – Project & Quality Management

CURRICULUM TOPICS

- Principles of Project Management
- Quality Attributes
- Product Life Cycle
- Cause and Effect
- Quality and Cost Relationship
- Reliability and Product Performance



Technology in Society – Project & Quality Management

Group Discussion Topics

- Discuss the cultural expectations of Quality.
- Consumer Expectations. Brand Loyalty
- How have consumer' expectations of product standards affected the world's growing landfill
- Quality and durability: longer-lasting and better-functioning products will have to be replaced less frequently, reducing the impacts of producing replacements



Technology in Society – Project & Quality Management

Innocent Company Ethics



Technology in Society – Project & Quality Management



We strive to do business in a more enlightened way, where we take responsibility for the impact of our business on society and the environment. Our vision is to work with local communities to create a sustainable future for people and their environment

Innocent Drinks Mission Statement

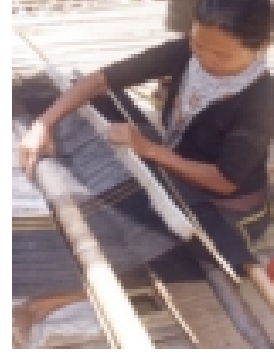


Technology in Society – Project & Quality Management

People Tree - Fair-trade Clothing



People Tree markets itself as an ethical clothing company. All clothes are made of Fair Trade organic cotton and manufactured by weavers, tailors, embroiderers employed under fair-trade conditions. Every part of the process through the whole supply chain is under scrutiny to ensure it meets Fair Trade standards and is ecologically sound.



Technology in Society - Project & Quality Management

Task:

Plot the product life cycle of two soft drink containers; a can manufactured in aluminium and a bottle manufactured in PET.

Task:

Following group discussions on the sustainable approach of the Innocent Company and People Tree, students are asked to research an Irish company adopting a similar stance.

Present this information in the form of a presentation, focusing on the following areas:

- Sustainability and Ethics
- Materials and Manufacturing
- Design
- User Focus and User Experience
- Transport
- Packaging and Marketing

Technology in Society - Materials and Production

CURRICULUM TOPICS

Manufacturing Processes

Materials

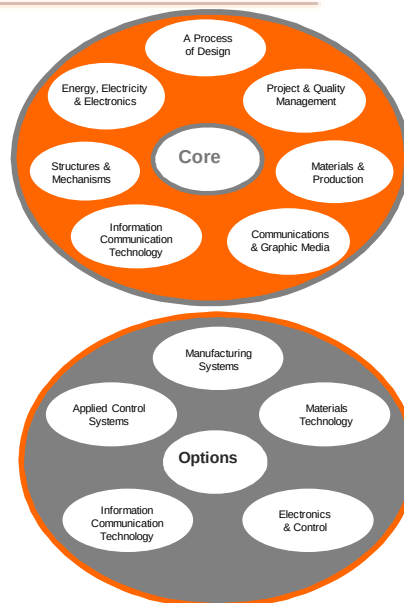
Properties of Materials

Practical Skill Development

Resource Management

Student Practical Experience

Economic Use of Materials

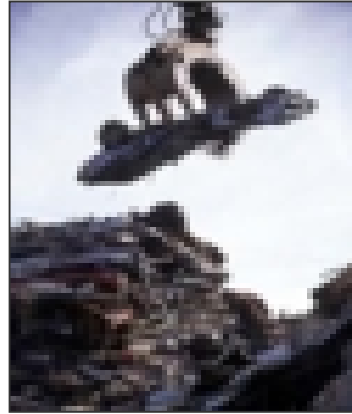


Technology in Society - Materials and Production



Starter Group Discussion Topics

- What do we mean by product Lifecycle and why should we consider it
- Link in with PRFU fund and disposal products
- Sustainable Manufacture – Case Study
- Low-impact materials: choose non-toxic, sustainable-produced or recycled materials which require little energy to process
- Energy efficiency: using manufacturing processes and produce products which require less energy
- Discuss a product's embodied energy



Technology in Society - Materials and Production Case Study



Design Focus: Tata Nano

Affordable Technology, Inclusive Design



- World's cheapest new car €1,700
- Safer alternative for transporting families
- Car ownership closer for millions of emerging markets

V's

- Environmental emissions concerns
- Social, moral impact this new design will have on the Indian culture.

Technology in Society - Materials and Production Case Study

Design Focus: Tata Nano



- India has unveiled the world's cheapest new car, the Tata Nano.
- The 100,000 rupee (€1,700) car brings car ownership closer for millions of poorer consumers in emerging markets but has also raised major environmental concerns.
- The company markets the car as a safer and more affordable alternative for the millions who often ferry families of four, plus baggage, on motorbikes and scooters.
- However, environmentalists are worried that millions of the cheap cars will flood on to India's roads, many of which are already heavily congested, sending emissions levels sky high in Asia's third-biggest economy.

Technology in Society - Materials and Production Case Study

Design Focus: Tata Nano

- India has about 1% of the world's cars but 10% of the world's traffic fatalities. The U.S., with more than 40% of the world's cars, creates 2% fatalities.
- India has invested \$50 billion in improve the road network system over several years.



Task Discussion

In two opposing teams, discuss the social, moral and environmental impact this new design will have on the Indian culture and society.

Technology in Society - Materials and Production Case Study

Design Focus: A380 Manufacture



Technology in Society - Materials and Production Case Study

Design Focus: A380 Manufacture

General Facts:

The Airbus A380 manufactured by Airbus S.A.S. is a double-decker, four engine airliner capable of flying 800 passengers in a high density format or 555 passengers in a typical three-class configuration.

Manufacture: 16 manufacturing sites across Europe

In a first step, the front and rear sections of the fuselage are loaded on an Airbus RORO ship in Hamburg, northern Germany, whence they are shipped to the United Kingdom. There the huge wings, which are manufactured at Filton in Bristol and Broughton in north Wales, are transported by barge to Mostyn docks, where the ship adds them to its cargo. In Saint-Nazaire, western France, the ship trades the fuselage sections from Hamburg for larger, assembled sections, some of which include the nose. The ship unloads in Bordeaux. Afterwards, the ship picks up the belly and tail sections in Cadiz, southern Spain, and delivers them to Bordeaux.

From there, the A380 parts are transported by barge to Langon, and by road to Toulouse, where the A380s are assembled before being flown to Hamburg to be furnished and painted.

Cost and Sales:

After years of design studies and airline surveys, Airbus finally made the decision to go ahead with the € 8.8 billion A380 project in 1999, the final budget settling at about € 12 billion.

The design strategy was carefully crafted and by being very large the A380 achieves much better seat-distance costs than any other aircraft.

Technology in Society - Materials and Production Case Study

Design Focus: A380 Manufacture



Task: Global Manufacturing

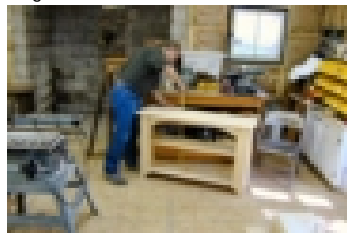
Present a research document detailing the production and manufacturing of this aircraft. Discuss the impact this scale of production has on the various local communities, the environment and the workforce.

Task: Outsourcing Manufacturing

Discuss the impact of outsourcing manufacturing on employment in communities.

Technology in Society – Scales of Production

Single Production



Batch Production



Mass Production



Q. Discuss the social and economic implication of switching from one scale of production to another.

Technology in Society – Irish Waste Production



72% of Ireland's household waste ends up in landfill sites!

Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

Objectives

- Reduce WEEE disposal to landfill;
- Provide for free take-back of end-of-life equipment from 13 August 2005. In particular, provide for the establishment of collection facilities and separate collection systems for WEEE from private households;
- This includes a collection target of 4 kg per person a year for domestic appliances.

<http://www.weeeregister.ie/>

Technology in Society - Materials and Production Student Tasks

Task: Social Responsibility

Research International standards in affect to ensure that large multinational companies are responsible for creating sustainable products

Task: Sustainable Responsibility

Following research with Energy Ireland and the Sustainable Ireland Group: Create an architectural model of a fully sustainable domestic environment.

Task: Product Life Cycle

Choose an electronic product which you use every day and research it's life cycle. Explore how and why it was designed, Track it's material choice, it's manufacture and it's disposable



• **3 Step Analysis :**

- ANALYSIS: Describes the features, **what they do**, how they work, what they are made from, why they are designed like they are. See resource booklet
- EVALUATION: Talks about **how well these features work** – Your opinion on the good design aspects with reasons, the bad design aspects with reasons.
- MODIFICATIONS: How the design **could be changed to improve** things you feel do not work as well as they could. This should be done using sketches which are clearly labelled.



• **Subsections to Include in Analysis**

Include:

EVALUATION (your own opinion from using the product) and
MODIFICATIONS (your suggestions and sketches) in each section.

- What the product is designed to do? FUNCTION
- Who has the product been designed for? TARGET MARKET
- The style of the product, is this to suit the target market? AESTHETICS
- Have ergonomics been considered in the design? USABILITY, INTERACTION DESIGN
- How the product has been made? MANUFACTURE
- What material have been used? Why have they been chosen? LIFE CYCLE
- How the parts of a product are put together? ASSEMBLY
- What design features does a product have? FEATURES
- Find out how the product works. Scientific principles used. TECHNOLOGY
- Look at the quality of the product. FINISH, MATERIALS FIT FOR PURPOSE

Technology in Society - Materials and Production Student Task

Task: Product Analysis Task

(Integrating student' knowledge of materials, production, quality and environmental impact)



Usability
Interaction Design
Non Invasive Technology
Embodied Energy?

Technology in Society - Materials and Production Student Task

Task: Student Product Analysis Task

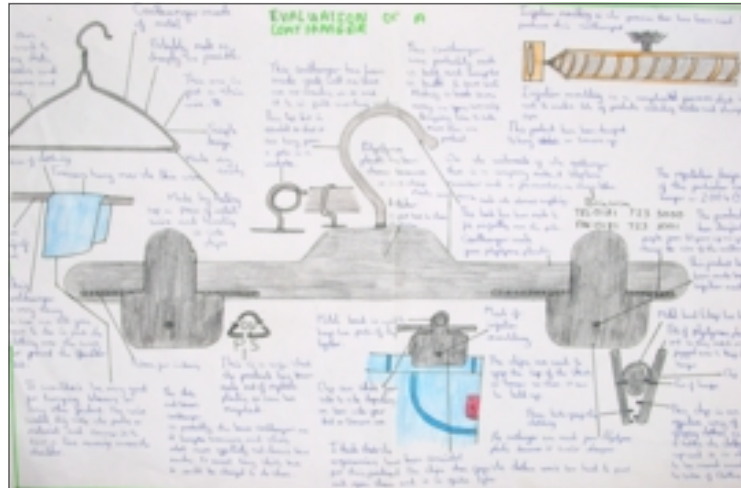
(Integrating student' knowledge of materials, production, quality and environmental impact)



Technology in Society - Materials and Production Student Task

Task: Student Product Analysis Task

(Integrating student knowledge of materials, production, quality and environmental impact)



Technology in Society - Communication and Graphic Media

CURRICULUM TOPICS

Freehand Drawing

Pictorial Representation

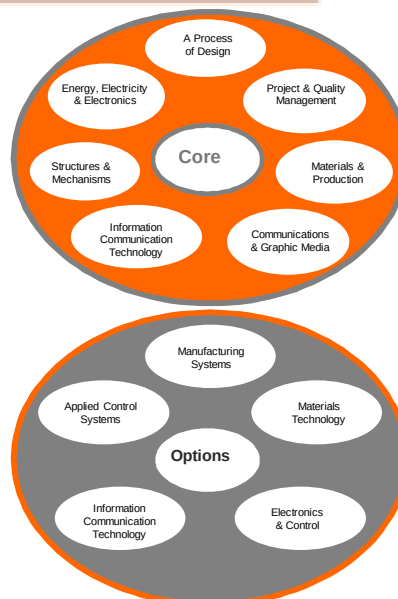
Computer Graphics

3D Modelling

Communicating Design

Visual Presentation

Production and Media



Technology in Society - Communication and Graphic Media

Product Placement

Ethical Advertising

Consumer Associations

Endorsements

?



Technology in Society - Communication and Graphic Media



Product Placement -

TV Shows, Music Lyrics, Video Games, Films

Television Infomercial V's commercial

- Choice Factor
- Celebrity Product Endorsement

Subliminal Advertisement

- Feel a sense of familiarity with products



Video Discussion

Darren Brown- The power of Subliminal Advertising

Background

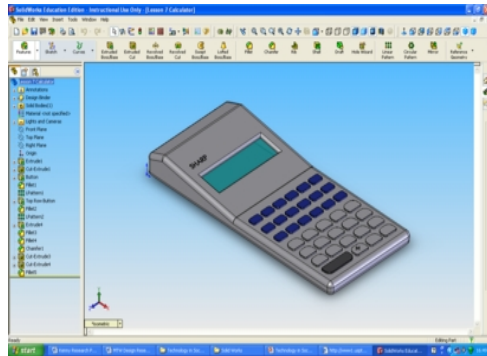
Two members of MBA, an advertising agency participate in an experiment to test their susceptibility to subliminal advertising
<http://www.youtube.com/watch?v=ZyQjr1YL0zg>

Technology in Society - Communication and Graphic Media

Freehand Sketch Design Idea



3D Modelling Sketch Design Idea



Discussion Task

Discuss the changing affects of 3D computer modelling in design, technology & manufacture.

Technology in Society - Communication and Graphic Media

Discussion Task

Is it ethical to advertise products which the vast majority of consumers cannot afford
Discuss the culture this creates.

Discussion Task

Celebrities make vast amounts of income endorsing products. Discuss the responsibility of celebrities in relation to product endorsement.

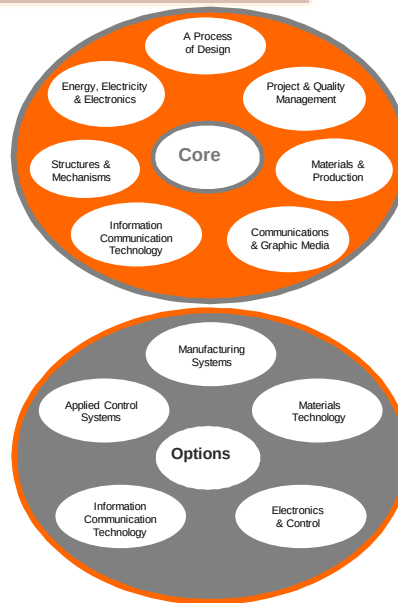
Discussion Task

Watch a film clip or an advertisement and note all product placement. Is it ethical for film makers to advertise products whereby the viewer is subjected to subliminal advertising.

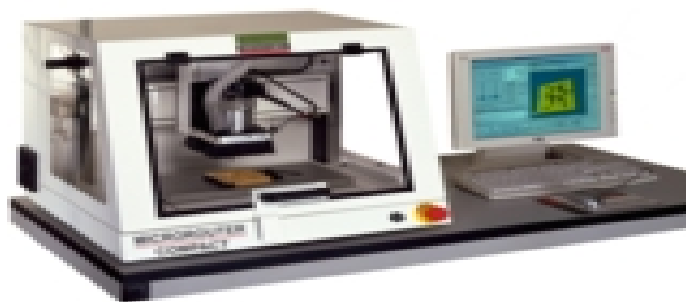
Technology in Society - Information & Communications Technology

CORE CURRICULUM TOPICS

Information & Communications
Introduction to Computer Systems
Computer Applications
CAD/CAM Systems
System Protection and Security
Computer Programmes
3D Computer Modelling
Software Packages



Technology in Society – ICT CAM/CAM Discussion



Discussion Task

- Discuss the affect of CAD/CAM in manufacturing on developing countries. Focus on employment, cultural changes, urban sprawl, housing and amenities and the affect on consumerism in these areas.
- 3D Modelling and CAD/CAM processes can reach a design solution quicker and with minimum waste. Discuss

Technology in Society – ICT Communication Sites

Social Networking Sites

Are they established to facilitate global communication, for users to share information or are they a platform for direct, intrusive, subliminal advertising?



People sharing information.....Discuss the social issues?

Technology in Society – ICT Communication Sites

What are Social Networking Sites

Face book, Bebo, My Space, U Connect

Face book Facts

CEO Mark Zuckerberg 23-year-old
Yahoo's offer to buy Face book for nearly \$1 billion
30 million active users on Face book
150,000 new users signing up daily, it is growing three times as fast as rival My Space

How it works

Face book users set up a profile page of themselves. This page features a picture and varying degrees of personal information from age, status, education to favourite films and interests. The site then allows users to search for other people, listed as friends. The site allows you to upload photos of events and share with other friends

Advantage of Face book is that you can to some extent control what other users see by allowing a new friend limited access.

My Space and Bebo work in a similar way. My Space is growing within the music industry as a starting place for aspiring artists to distribute their music.

Technology in Society – ICT Communication Sites

Intrusive

- The power of surveillance - voyeurism

Privacy

- Employers are now using the sites to check up on the behaviour of their staff

Targeted Advertising, Invasive Advertising

- Opportunity for advertisers to research target users, their social network and communicate on a direct level

Social timeline

- Online diary of events

Identity Theft

- Users are far too revealing online about their private life.
- Mother's maiden name as a password, which can be used in online banking details.



Technology in Society – ICT Communication Sites

Facebook Beacon Advertising system

Innovative approach to online targeted marketing

or

Erosion of consumer privacy.

- Any company or organization can now establish a profile on Facebook and solicit support from other users. Each time a user adds the company as a friend, their connections are notified that they support that brand.
- For example, when you engage in consumer activity at a partner website, such as Amazon, eBay not only will Facebook record that activity, but your Facebook connections will also be informed of your purchases or actions.
- Companies can buy advertisements to support their new presence on Facebook, and these ads can be targeted by things like geography, gender, age, and any type of info that users have entered into the Facebook database.

Technology in Society – ICT Music Sharing Sites

Music & Film Downloading



Task Discussion

Is it okay to download, swap music files? Is it any different to burn a music CD for a friend?

Is illegal music downloading contributing towards a decline of the of the music industry? Discuss how this affects emerging artists and record sales?

Technology in Society - Structures and Mechanisms

CURRICULUM TOPICS

Technology Structures and Mechanisms

Classification of Structures

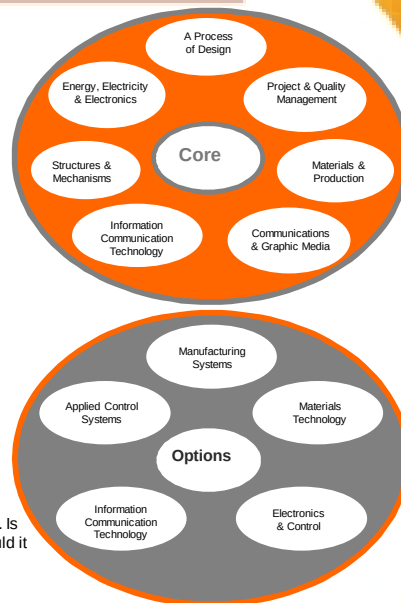
Structural Forces

Mechanical Principles



Discussion Task

Discuss a building or sculpture which you are familiar with. Is the design in line with the local architectural context or could it be seen as an eyesore?



Technology in Society - Energy, Electricity and Electronics

CURRICULUM TOPICS

Source & Type of Energy

Energy Conservation

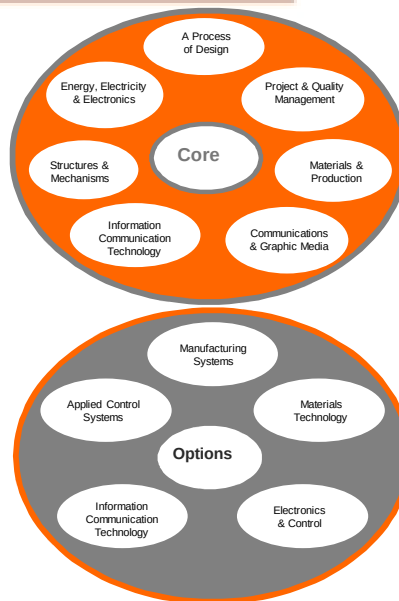
Renewable Energy Sources

Energy Efficiency

Energy costs

Electrical Circuits

Electric Circuit Production



Technology in Society - Energy, Electricity and Electronics

Discussion

Do you feel labelling how energy efficient products are would affect consumer choice?

If this label equated energy loss in financial terms do you think people would be more concerned?

Task

Develop a graphical table to convey the varying degrees of energy loss in a standard incandescent lamp and an energy efficient lamp.



Technology in Society - Energy, Electricity and Electronics



Energy Research Task

Research the wind up laptop design and discuss how it has helped developing communities in social, cultural and economic terms. In your research explore the mechanisms and materials used in the design.

Energy Research Task

Develop a brief incorporating a humidity indicator to control the moisture content in the home. Link the design with energy efficiency data.



Technology in Society - Energy, Electricity and Electronics



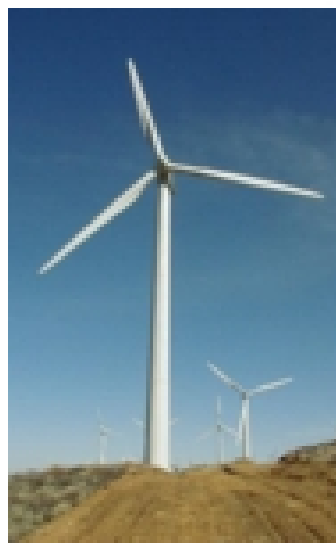
Sustainable Design

'A sustainable design is one which meets the needs of our generation without compromising those of future generations. It reduces the use of non-renewable resources, minimizes environmental impact, and relates people with the natural environment.'

Questions

How is a sustainable product different to one which is environmentally friendly?

What is meant by the term, 'Carbon Footprint'?
Discuss the measures can one take to reduce their carbon footprint?



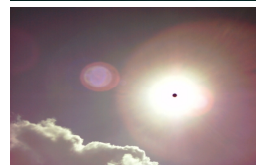
Technology in Society – Energy and Mechanisms Linked



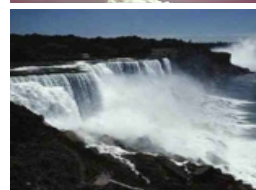
WIND



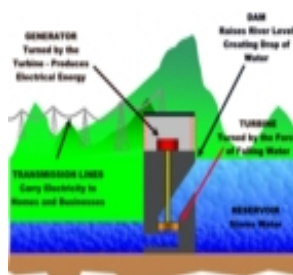
SUN



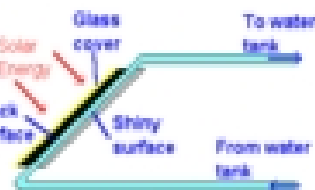
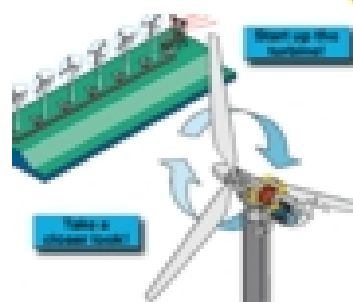
WATER



Technology in Society – Energy and Mechanisms Linked



- Kinetic energy
- Mechanical energy
- Electrical energy
- Solar energy
- Heat energy



Technology in Society – Energy and Sustainable Living



Building a Sustainable Community:

Case Study: The Village Cloughjordan, Co Tipperary

- 67 acre farm, 80 Sites
- Domestic, Social, Cultural buildings
- Community allotments
- The Eco Charter
- Infra-structure services and landscape
- Group heating & Water network
- On-site renewable energy systems
- Waste management & minimisation
- Sustainable planning
- Pedestrian and Community Circulation
- Socio-economic Report - Enterprise



<http://www.thevillage.ie>

Technology in Society – Energy Facts and Figures



Worldwide, some **2 billion people** are currently without electricity.

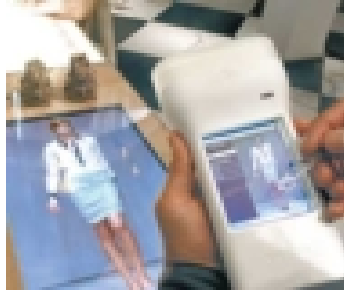
For the 2 billion people without access to electricity, it would be **cheaper to install solar panels** than to extend the electrical grid.

World **energy consumption is expected to increase** 40% to 50% by the year 2010, and the global mix of fuels--renewables (18%), nuclear (4%), and fossil (78%)--is projected to remain substantially the same as today; thus global carbon dioxide emissions would also increase 50% to 60%.

On average, **16 million tons of carbon dioxide** are emitted into the atmosphere every **24 hours** worldwide.

ESB aim to reduce their carbon footprint to 0 by 2035

Technology in Society – Technology and the Consumer



- The Epicentre concept for Prada with IDEO Design and Dutch architect Rem Koolhaas.
- The team investigated ways to reinvent the retail experience and developed an integrated array of custom in-store technologies, a content database and a prototype Website that will link the Epicentre to the Internet
- TI-RFid smart labels identify merchandise, staff, customers, and devices, and link individual shoppers with information about their selections before they make a purchase

Discussion Task (The hyperlink attached features a pod cast from Ideo on the Prada Store)
Discuss this changing retail environment with regards to consumer spending habits & personal data.

Technology in Society – Social Design example



Bike Sharing System



Bicing is a bike sharing initiative piloted in Barcelona's. The city's commuters have been sharing 3000 white- and red-coloured bicycles throughout the city. There are over 100,000 subscribers now riding the bikes since the service launch in March 2007.

Technology in Society – Student Initiatives

What initiatives can students adopt to promote ethical design & technology decisions, in their school community?

Fair-trade Canteen Food

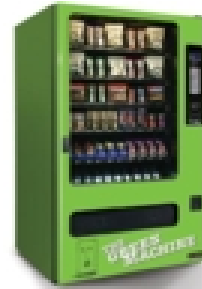
- Cannon Vending provide Fair-trade products, organic snacks and Irish made whole food items, supporting local business.
- (Social, Moral and Environmental awareness)

Green School Initiative

- International environmental education programme and award scheme, 14,500 Schools, 37 Countries
- Curriculum Lesson Tasks – Focused on engaging students

Mobile Recycling

- Recycloop operate a recycling programme for mobile phones and printer cartridges in Irish schools. Recycloop donated a percentage to both the school and a chosen charity for every reusable mobile phone and empty printer cartridge recycled.



Technology in Society – Future Technologies

Technology will become more advanced, creating intelligent products where the technology is almost invisible. Wallpaper Magazine June 2007

How do we control these developments so that the end products are human sensitive?

Task:

Create a written list predicating the home and school of 2060.

Include in your presentation the following aspects:

Possible products and technologies we might use:

- Our quality of life and social relationships
- Our relationship with the environment
- Our Leisure time
- Our Privacy

Include also a Visual representation



Technology in Society – Student Research Task

Collective Research Project

To increase student awareness of developments in technology and to enhance their verbal communication skills

- Each student researches a design and technology product which interests them and one which they feel shows developments in this area.
- Students then deliver a 5min presentation, as a lesson starter, explaining their choice, the design details and technology advancements.
- Students provide a notes handout, following the template sheet. This is then photocopied and distributed to others within the group. on template sheet and then added to collection
- Students then have a collection of interesting design and technology examples, to reference in exams and project research.

Technology in Society – Student Research Task Example

Product Design Name: The Wooden Chair, Marc Newson
Presentation: Miss Byrne



Design Details

- Designer: Marc Newson, Australian Product Designer
- Manufacturer: Cappellini, Italian Furniture Designers
- Created: 1988 – Still in Production
- Material: Natural bent beech-heartwood
- Retail Price: €3,200

Design Information

Key research facts, relating to the design, manufacturing of the piece.

The Wooden Chair is an oversized lounge chair made of beech heartwood, surprisingly comfortable; the wooden chair gives a little under your body's weight for a very relaxing fit. The designer, Marc Newson approached numerous manufacturing companies who told him the design was impossible to make, until a company in Tasmania suggested a supple local pine. The shape could be manufactured however the pine too weak in tension. Newson wanted his design to express the beauty of wood and its character. He developed the design and the strength issues, eventually producing it in natural bent beech-heartwood.

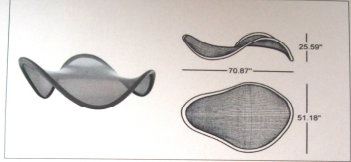
Comment

– Your opinion relating to the design and manufacture, why you like, dislike etc...expand

This design is beautiful in shape and while complicated to manufacture the final piece gives the appearance of lightness and simplicity. I admire also the designer's confidence in pursuing his design idea.

Technology in Society – Research Task Student Work

Group Design Research Portfolio
Product Design Name: The Fly Seat, Mark Robson
Student Presentation: Desmond Bale



Design Details:
Designer: Mark Robson, born in the U.K now lives in France
Manufacturer: Zanotta, Italy
Created: 2002, still in production
Material: Carbon Fibre, Quota fabric
Retail Price: \$11,209.00

Design Information
The Fly is fluid in design. It looks as if it could blow away with the wind. It is constructed of a clear varnished carbon fibre frame covered in a Quota fabric.

Comment
The design may be unusual in shape but the final piece gives the appearance of lightness and looks as if it is easily blown away. I admire Robson's design of this piece because it is very unusual and not something you see very often being made.

Product Design Name: The Walt Disney Concert Hall Frank Gehry
Student Presentation: Paul Daly



Design Details
Designer: Frank Gehry, Canadian Industrial
Created: October 2003
Material: Stainless Steel
Price: \$274 Million

Design Information
In 1988 Frank Gehry won a competition to design The Walt Disney Concert Hall which was surprising at that time as he was known as a weird architect whose designs were weird, forward looking and edgy. The construction was put back many years due to earthquakes and lack of funding. Fifteen years later the fundraising came through and Gehry unveiled the finished hall in 2003. Frank Gehry wanted the designs perfect for the musicians so he worked with a Japanese acoustics company to insure his designs would provide a perfect harmonious setting.

Comment
This design is very unique in shape and while complicated to construct its finish looks like a ship. I also admire the way the designer is so artistic in making such an unusual building.

Technology in Society – Lesson Starter Tasks

Discussion:

- Discuss who leads change and decides what is socially and culturally acceptable with relation to new design and technology?
- In relation to the following areas discuss the positive and negative implications of advancements in technology?
 - Medical Industry
 - Economy
 - Employment
 - Social Structure
 - Community
 - Personal Development

Task:

Before approaching design ideas for the following projects, list the design specification and areas which require research. When drafting the list think about the social, moral and environmental impact of the final design solution.

- Projects:**
- Designing a mini well project to extract water in developing countries
 - Designing a solar powered transport vehicle

Technology in Society – Moral, Social & Environmental Key Terms

Moral Issues

Religious issues,
Offend particular group,
Sexual Imagery,
Target Marketing,
Economic exclusion



Environmental Factors

Design Production,
Material Choice,
Packaging, Maintenance,
Replacement Parts,
Recycling, Waste Management

Social Issues

Social Inclusion,
Employment Conditions and Wage,
Ethical Production Methods,
Health and Safety,
Consumer Brand Loyalty,
Reliability,
Economic Availability,
Design Advertising



Technology in Society – Resource Websites & Logo

<http://www.citizensinformation.ie>

<http://www.weeeregister.ie/>

<http://www.antisce.org/>

<http://www.designgreen.org/>

<http://www.treehugger.com>

<http://www.makingthemodernworld.org.uk/about/>

- UK Science Museum, excellent site with information on inventions, technological developments and products through the ages.

<http://www.peopletree.co.uk/>

<http://designmuseum.com>

<http://www.cbc.ca/news/background/tech/hightech/facebook-beacon.html>



