OCR Computer Science GCSE
1.6 - Ethical, legal, cultural, and environmental impacts of digital technology

Flashcards

What are ethical issues in computer science?

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Questions about what is morally right or wrong in the use of technology.

What are legal issues in computer science?

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Concerns about whether technologies comply with legislation.

What are cultural issues in computer science?

What are cultural issues in computer science?

How different societies view technology based on their values, traditions or beliefs.

What are environmental issues in computer science?

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The impact of technology on the natural world, including energy usage, e-waste, and harmful materials in devices when disposed.

Give one negative environmental impact of technology.

Give one negative environmental impact of technology.

The production of hardware consumes the Earth's limited natural resources.

Give one way technology can help the environment.

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Reduces paper use by enabling electronic communications.

Why do most citizens value data privacy?

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They may not want governments or organisations to access their private information.

What argument do governments make for accessing private data?

What argument do governments make for accessing private data?

They claim it helps protect citizens from terrorism and other threats.

What does the Data Protection Act 2018 do?

What does the Data Protection Act 2018 do?

Regulates how organisations use personal data, ensuring it is handled lawfully, fairly, and securely.

Give some examples of personal data.

Give some examples of personal data.

Name, address, date of birth, phone number - anything that can identify an individual.

What rights does everyone have under the Data Protection Act 2018?

What rights does everyone have under the Data Protection Act 2018?

- The right to be fully informed about how their personal data is being used
- The right to request access to the personal data that an organisation holds about them
- The right to have their personal data erased
- The right to request that an organisation stops processing their personal data

What is the Computer Misuse Act 1990?

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A law that prevents unauthorised access or changes to computer systems.

Under the Computer Misuse Act 1990, which offence is this an example of?

You notice your sibling has written their username and password down in a notepad. You use their login details to access their laptop and read their private emails without their consent.

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Unauthorised access to computer material.

Under the Computer Misuse Act 1990, which offence is this an example of?

You guess your colleague's password and login to their online banking. You then transfer money to your own account without their knowledge.

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Unauthorised access with intent to commit or facilitate commission of further offences.

Under the Computer Misuse Act 1990, which offence is this an example of?

You send a virus as an email attachment to a rival's business computer system, knowing it will slow their operations, hoping to give your company an advantage.

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Unauthorised acts with intent to impair, or with recklessness as to impairing, operation of computer.

Under the Computer Misuse Act 1990, which offence is this an example of?

You break into a hospital's computer system as a prank, not realising that your actions would crash the server and delay patient records being accessed in emergencies.

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You break into a hospital's computer system as a prank, not realising that your actions would crash the server and delay patient records being accessed in emergencies.

Unauthorised acts causing, or creating risk of, serious damage.

Under the Computer Misuse Act 1990, which offence is this an example of?

You write the code for a phishing website that mimics a bank's login page, intending to collect other users' login details, even if you haven't shared the code with anyone or put the website onto the internet.

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Making, supplying or obtaining anything which can be used in computer misuse offences.

What does the Copyright, Designs and Patents Act 1988 do?

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Protects original work from being copied or used without permission, including software and media.

Who automatically owns the copyright to original work?

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The creator of the original work.

What is open source software?

What is open source software?

Software with publicly available source code that anyone can use, modify or share.

What are the advantages of open source software?

What are the advantages of open source software?

Free to use, can be adapted, supported by a large community.

What are the disadvantages of open source software?

What are the disadvantages of open source software?

Doesn't usually have official customer support, may require technical skill to install.

What is proprietary software?

What is proprietary software?

Software owned by a company or individual with hidden source code that requires a licence to use.

What are the advantages of proprietary software?

What are the advantages of proprietary software?

Often reliable, usually comes with customer support, may not require installation.

What are the disadvantages of proprietary software?

What are the disadvantages of proprietary software?

Must be paid for, cannot be legally modified, users depend on the company for updates.