A Level Computer Science Transition Work

In A-Level Computer Science you will be studying, amongst many other topics, the impact of computing and communications technology on society. We will discuss various laws in place regulating the use of computing technology as well as social, moral and cultural issues which arise with the use of such technology.

In preparation for this part of the course,

**Task 1 – Computing and Communications Legislation**

In your own words, research and summarise the key points of the following pieces of legislation. There are some links provided below to help you.

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| The Data Protection Act |
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| The Computer Misuse Act |
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| The Copyright Act |
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| The Digital Economy Act |
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Useful Links:

Data Protection Act:

<http://www.teach-ict.com/as_a2_ict_new/ocr/AS_G061/317_role_impact_ict/data_protection_act/miniweb/>

<https://ico.org.uk/for-organisations/guide-to-data-protection/data-protection-principles/>

Computer Misuse Act:

<http://www.teach-ict.com/as_a2_ict_new/ocr/AS_G061/317_role_impact_ict/computer_misuse_act/miniweb/>

<http://www.legislation.gov.uk/ukpga/1990/18>

Digital Economy Act:

<https://www.bpi.co.uk/digital-economy-act.aspx>

<http://www.lawgazette.co.uk/law/the-digital-economy-act-2010-and-online-copyright-infringement/56958.fullarticle>

Copyright, Design and Patents Act:

<http://www.teach-ict.com/as_a2_ict_new/ocr/AS_G061/317_role_impact_ict/copyright_designs_patents_act/miniweb/pg2.htm>

<https://www.copyrightservice.co.uk/copyright/uk_law_summary>

**Task 2 – Social/Moral/Cultural impact of computing**

For this task, you will be given two case studies of the use of computing technology in society. You will be asked to consider the moral, ethical and cultural impact of the use of this technology. There are links provided to help you research some cultural/moral aspects of computing but your answers should be based on your own opinions of the given situations. Here is a summary of what is meant by social, moral and cultural.

**Social** – How technology effects the individual or communities. For example, the closing down of a large business in a town will have an impact on the local community in terms of jobs, the economy and living standards.

**Moral** – Whether or not something is ethically ‘right’ or ‘wrong’. This is very subjective as different people will have different opinions on ‘right’ and ‘wrong’. For example, is it right that our communications are monitored?

**Cultural** – How different communities (different races, different nationalities, different religious groups) view the use of computing technology. For example, in China, certain websites are deemed ‘inappropriate’ by the government and web users are blocked from these sites.

Read the following two case studies. Give your opinions on any social, moral or cultural issues arising from these scenarios…

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| Case Study 1 |
| The government of a country have installed some monitoring software on the servers of the main Internet Service Providers. This software scans key words entered in search engines and flags up ‘suspicious’ web activity by Internet users. The government state that this system is in place in the interests of national security and that any internet user with nothing to hide should not be worried by this. |
| Discuss any moral/ethical/cultural issues arising here |
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| Case Study 2 |
| A car manufacturing company has developed a fully automated manufacturing system in one of its main plants as a trial with a view to rolling this out to all of its main plants if successful. The whole process is controlled by software and robots from the car production to online ordering and delivery despatch. They aim to do this as a long term cost saving measure and as a means of streamlining the production process.  |
| Discuss any moral/ethical/cultural issues arising here |
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Useful websites:

<http://www.bbc.co.uk/education/guides/zkhykqt/revision>

<https://www.aitp.org/news/98451/>

<http://www.teach-ict.com/gcse_new/social_ethical/politics_ethics/miniweb/index.htm>

<http://whatis.techtarget.com/definition/digital-divide>

Please print your completed work out to hand in during the Autumn term.