**Legal, Social and Ethical issues relevant to studying and working in the computing and business IT industries.**

The use of computers and recent advancements in technology over the last few decades have generated new legal, social and ethical issues within the computing and business IT industries and with each new technology comes new issues.

In the 1970’s philosophers and theologians created a term known as ‘Technoethics’ these new concerns along with technology driving society in the modern era culminated in the creation of a sub-disciple of ethics with chemical engineer and theologian Norman Faramelli defining the term as "the responsible use of science, technology and ethics in a society shaped by technology."

There are many aspects to legal, social and ethical issues when working or studying in the IT industry, most employers have a handbook or general guidelines to these issues relevant to their sector of the trade as well as having a duty to their employees. (Luppicini, 2010)

***Legal, social and ethical issues***

**Professional Standards and Working Conditions –** Working in the IT industry requires individuals to have a vast knowledge of the sector they are working in and to continually develop their skills as new technology gets introduced while following ‘best practise’ at the same time.

There are codes of conduct in place and every employer will get a new employee to sign these documents, they generally contain;

*Acceptable use policy* – Different employees throughout an organisation may have access to different personal and sensitive data, this policy is a guideline to what is acceptable and not acceptable ethically and legally. It may specify that paper copies of sensitive data must be destroyed, removable storage may not be allowed in the workplace and encryption methods when sending data over a network.

*Internet access policy* – This policy is a general guideline and what is deemed acceptable and not acceptable when using the internet in the workplace. It may specify responsible and productive use, limited to job-related work, monitoring internet access and more.

Advancements in technology have greatly impacted the workplace for the better with faster communications, quick access to data, databases, cheaper data storage etc. However, it has created some ethical disadvantages including being on call 24-hours a day when not intended to be due to the internet and smart phones, medical issues for example eye strains and repetitive strains and there is also the concern new technologies may take jobs away from actual human beings.

**Privacy –** Computers can transmit or store vast amounts of data and when it is personal private data this poses a big risk to privacy, companies should ensure that any personal information on their system stays private and only accessible by authorised personnel.

In 1998 and regulated in 2018 The Data Protection Act was created to make sure companies adhere to the law when collecting, processing and securing personal data.

**Cybersecurity –** There is an exponential growth in cybersecurity spending over recent years due to increased attacks as such there are an ever-evolving set of laws regarding cybersecurity.

The Computer Misuse Act 1990 was introduced to discourage illegal activity on computers this included three parts;

1. It is illegal to access information or data unless you have authorisation to do so.
2. It is illegal to access information or data when that information or data can be used carry out additional illegal activity.
3. It is illegal to change or modify any information or data on a computer unless you have authorisation to do so, this includes viruses and malware that can damage or alter the way the computer operates.

In 2021 a bill was passed to better protect the publics ‘smart’ (having internet connectivity) devices from hackers this bill was to prevent the sale of any device that did not meet security requirements it came after research suggested 80% of manufacturers of smart did not enforce adequate security measures.

(GOV.UK. 2021.)

A government press release from the start of 2022 implied they were going to tighten legislation in an attempt to “drive up standards”.

Not all hacking is necessarily bad as there are hackers who use their talent and expertise for good rather than malicious intent, these are differentiate by “white-hat hacking” and “black-hat.

(GOV.UK. 2022.)

**Public Safety –** As new technologies are implemented as are new safety concerns, an example being driverless cars; the designers must ensure the safety of the driver and passengers but also pedestrians and other drivers and there could be a situation were the software of the car may have to decide between the driver and pedestrians or another vehicle which creates another ethical dilemma.

**The Copyright, Designs and Patents Act and Creative Commons licensing –**

The Copyright, Designs and Patents Act of 1988 was created to protect creations whether they are personal or corporate and is automatically applied to a creator’s work.

This can be an image, video, text or invention, the copyright gives a way or protecting a creators work from others making copies of the work, publishing and selling it and distributing it without the owners permission.

The Creative Commons (CC) licensing gives creators the power to share their work online with restrictions whilst keeping the copywrite, a CC license is not automatically applied but can be requested by the owner.

Four common CC licenses in the UK;

| **Licence** | **Description** |
| --- | --- |
| Attribution | The work can be copied, modified, distributed, displayed and performed but the copyright owner must be given credit. |
| Non-commercial | The work can be copied, modified, distributed and displayed but no profit can be made from it. |
| No derivative works | The work can be copied, distributed, displayed and performed but cannot be modified. |
| Share-alike | The work can be modified and distributed but must be covered by an identical licence. |

**The Freedom of Information Act 2000 –** The Freedom of Information (FOI) Act 2000 is in place to allow the public the right to access any information recorded by the public sector, this can include schools, councils, government departments, hospitals, libraries and museums.

Anyone can request information by post or by email and organisations then have 20 working days to provide the information, organisations are not obligated to give sensitive information as the Data Protection Act 1998/2018 overrides this rule and if they deem the cost of gathering the information too large.

**Environmental issues –** Computers require resources such as metals, plastics, fuels, electricity etc to produce then distribute and in operating the equipment.

Webservers and datacentres use great amounts of energy and need to be in 24-hour operation as well as many computer components being hard or impossible to recycle due to containing toxic materials. Also, many people upgrade and discard their smartphones every couple of years and organisations will replace computers every so every couple of years as well, all of this results in major ethical issues concerning the environment.

(BBC Bitesize. n.d.)

**References**

BBC Bitesize. n.d. *Ethical issues - Ethical, legal and environmental impacts of technology*. [online] Available at: <https://www.bbc.co.uk/bitesize/guides/zd726yc/revision/1>.

GOV.UK. 2021. *New cyber laws to protect people’s personal tech from hackers*. [online] Available at: <https://www.gov.uk/government/news/new-cyber-laws-to-protect-peoples-personal-tech-from-hackers>.

GOV.UK. 2022. *New laws proposed to strengthen the UK’s resilience from cyber attack*. [online] Available at: <https://www.gov.uk/government/news/new-laws-proposed-to-strengthen-the-uks-resilience-from-cyber-attack>.

Luppicini, R., 2010. *Technoethics and the Evolving Knowledge Society*. Ottawa: IGI Global.