

Digital Transformation:

Software Design,
Management +
Practical Implementation

CSC4008

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Professionalism



Ethical, Social and Legal Issues

Session Overview

Key areas

Background

Reading

GDPR



Overview

IT systems becoming more influential e.g. IOT, Business Intelligence, predictive analytics, Intelligent buildings

Confidential data and knowledge about individuals and companies

Professional Organisations exist that provide a code of conduct. You have a responsibility to understand Legal and Ethical issues as a profession

Codes of ethics and professional conduct, which can serve as a guideline for individuals and other organizations

Just because you are able to do something does not mean you should or you are entitled to do something

Conduct

Unlike older, more established professions such as medicine and law, most ethical issues that IT and security professionals confront have not been codified into law, nor is there a standard mandatory oversight body, such as the national or state medical association or bar association, that has established a detailed code of ethics

Code of conduct:

<https://www.cs.bham.ac.uk/~mmk/teaching/commskills/s4.pdf>

ACM Code of Ethics and Professional Conduct.

<http://www.acm.org/constitution/code.html>

British Computer Society Code of Conduct

<http://www1.bcs.org.uk/DocsRepository/03200/3224/default.htm>

IEEE-CS/ACM Software Engineering Code of Ethics and Professional Practice

<http://www.computer.org/tab/seprof/code.htm>

Governance and Policy

Data Governance Policy

Such guidelines involve policies for business process management and enterprise risk planning as well as sourcing, ownership, quality, privacy and security

Ensure organisational data is accurate, accessible, consistent and protected. The policy establishes who is responsible for information under various circumstances and specifies what procedures should be used to manage it

Living document, which means it is flexible and can be quickly changed in response to changing needs

Data Gathering

Our Activity is constantly being monitored

Often done in the name of national security. Often simply for marketing purposes

These measures have revived a debate about what information can be gathered and why

This issue invokes a question of consent. Do people know what information is being monitored? Do they have a right to know how their data is being used?

Universities are tracking their students. Is it clever or creepy?
<https://www.theguardian.com/higher-education-network/2016/aug/03/learning-analytics-universities-data-track-students>

Digital Ownership

Digital mediums have allowed information to flow more freely than before.

This exchange of ideas comes with a legal and ethical backlash. How can ownership be established in the digital realm?

Things can be easily copied and pasted online, which makes intellectual property hard to control

Legal notions such as copyright have struggled to keep up with the digital era

University students' data to be shared with private companies
<https://www.telegraph.co.uk/education/2018/06/18/university-students-data-shared-private-companies/>

Privacy

What rights have the user in terms of collection and usage of data

Privacy has evolving legal implications, but there are also ethical considerations. Do people know how their data / accounts are monitored? To what extent is such monitoring occurring?

Privacy concerns can easily become a slippery slope, slowly eroding an individual's right to privacy completely

IT professionals need to balance risk with freedom to create a security system that is effective and ethical at the same time

How Secure

29 Sept: Facebook security breach: Up to 50m accounts attacked

<https://www.bbc.co.uk/news/technology-45686890>

30 Sept: Major security flaw in Tory conference app reveals users' data

<https://www.theguardian.com/politics/2018/sep/29/tory-conference-app-flaw-reveals-private-data-of-senior-mps>

8 October: Google is killing Google+ after security flaw exposed user information

<https://bgr.com/2018/10/08/google-plus-data-breach-profile-information/>

Social

Internet provides unlimited access to all of the information ever created and discovered

Major shifts in the way that society operates and how we interact

Some less positive social issues generated as a direct result of technological advances

Important to understand these so that steps can be taken to better understand and combat the negative effects

GDPR