



Academic excellence for
business and the professions

IN2015

Professionalism and Ethics in IT

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By the end of the Workshop



You will:

- Understand what professionalism is and why professionalism in IT is important.
- Develop an understanding of the importance of professional body membership and codes of conduct.
- Understand the difference between ethics and morals in an IT setting.
- Develop your understanding of the role of ethics in IT including data security and AI, loot boxes and the Internet Safety Strategy Green Paper
- Understand what GDPR is within the context of the Facebook and Cambridge Analytica Scandal
- Develop your understanding of Assessment 2 requirements

What is professionalism?


- What does it mean to be professional?
- What do employers expect from you?



Professionalism and the PLU

- Think before you press send!
- Composition of emails – subject header, thank recipient for their time, be polite, it goes a long way!
- Add your name to your CV's file name when you save it!

Professionalism in IT



When it comes to professionalism, it makes sense to talk about being professional in IT. Standards are vital so that IT professionals can provide systems that last.

Tim Berners-Lee

quoteancy

Membership of a Professional Body

- **What is it?**

“A Professional Body is an organisation with individual members practicing a profession or occupation in which the organisation maintains an oversight of the knowledge, skills, conduct and practice of that profession or occupation.” [Science Council, 2018](#)

Examples: BCS, ACCA, IET – what are these short for?

- **Why is it important?**

The CIOB ‘[Understanding the Value of Professionals and Professional Bodies](#)’, surveyed more than 2,000 members of the public and over 150 MPs for their perception of professional bodies.

- Productivity – increasing workforce capability by promoting best practice and use of new tech;
- Social mobility – by providing routes to entry for all at any point in their career;
- Governance and ethics – standards for behaviour and competence and
- International development – exporting qualifications/professional services via growing international networks;
- Policy formation – researching to advance understanding of important issues and sharing specialist knowledge with decision makers.
- Public polling found that a vast majority of people would trust a professional more if they knew that they were a member of a professional body.

The British Computer Society

Professional Body for Information Technology



4 main principles of BCS Code of Conduct

Public Interest – conduct yourself appropriately with regards to health and safety, equality and marginalisation

Professional Competence and Integrity – behave ethically and have knowledge and understanding of LEPSI

Duty to Relevant Authority – use professional judgement and take responsibility for your and your subordinates work

Duty to the Profession – maintain and develop professional standards – your own, BCS's and the industry's

Ethics Vs Morals



Aren't they the same thing?

“**Ethics** and **morals** relate to “right” and “wrong” conduct. While they are sometimes used interchangeably, they are different: **ethics** refer to rules provided by an external source, e.g., codes of conduct in workplaces or principles in religions.

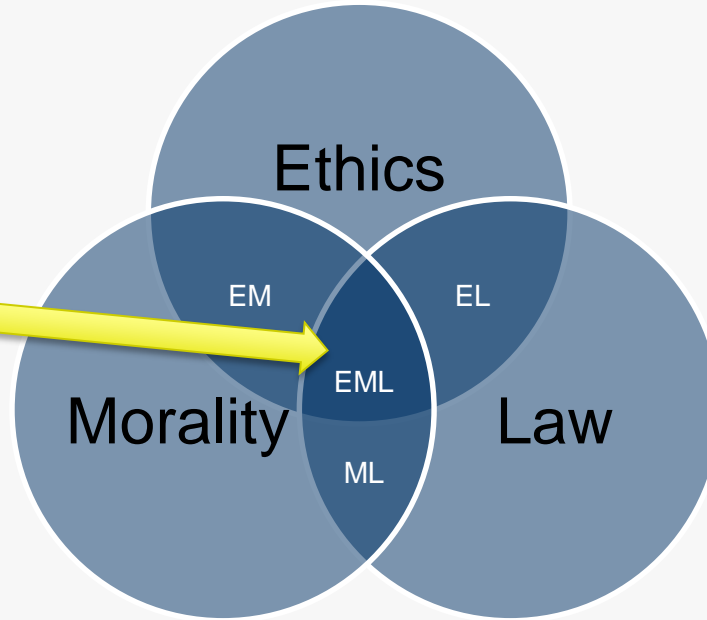
Morals refer to an individual's own principles regarding right and wrong.”

Source: https://www.diffen.com/difference/Ethics_vs_Morals

Source: <https://www.theguardian.com/law/2014/jun/27/lawyers-defended-toughest-cases-charles-manson-jon-venables-ted-bundy-charles-ng>

Ethics, Morals and the Law – Can you have all 3?

They can co-exist but often conflict



Source: <https://www.linkedin.com/pulse/ethics-vs-morals-law-dr-arturo-perez>

Apple Vs the FBI – Group Activity Debate



- “A US federal judge asked Apple to help the FBI unlock an iPhone belonging to Syed Farook, who was responsible for the shootings in San Bernardino in December which left 14 people dead.
- The judge asked Apple to provide "reasonable technical assistance" to the U.S. authorities, which would require the technology giant to overhaul the system that disables the phone after 10 unsuccessful password attempts. Once this feature kicks in, all the data on the phone is inaccessible. Apple declined to help the FBI.”

<http://www.cnbc.com/2016/03/29/apple-vs-fbi-all-you-need-to-know.html>

- Divide the group in two – one half of the room will be debating for Apple, the other – the FBI.
- Students have 10 minutes to review the debate handout information and put together a debate.
- Each side has 10 minutes to put across their argument.
- PDIT Tutor to discuss the [outcome of the case](#) that has now been resolved
- Total activity time: 30 minutes

Ethics and AI: Asimov's Three Laws of Robotics

Science Fiction Writer Asimov developed the laws in 1942, these are still 'mainstream' today:

- A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- A robot must obey orders given it by human beings, except where such orders would conflict with the First Law.
- A robot must protect its own existence as long as such protection does not conflict with the First or Second Law."

Asimov later added a 4th law (the zeroth law) that outranked the others

- 0. A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

Source: <https://www.recode.net/2016/4/13/11644890/ethics-and-artificial-intelligence-the-moral-compass-of-a-machine>

AI and ethics – the power for good or evil

- Based on the 3 laws, what would AI decide in order to resolve the 'trolley problem'?



<https://www.youtube.com/watch?v=bOpf6KcWYyw>

- Now consider the 'zeroth' or 4th law – what would happen next?

Ethics and AI – why create it?

Meet Norman, a psychopathic AI. Developed by MIT. Algorithm shown only images of death and destruction and bases its decisions solely on this.

Is there an ethical reason for developing this?

Do we not know already that learnt behaviours are the basis of our decisions?



MIT

Read more here: <https://www.bbc.co.uk/news/technology-44040008>

Loot Boxes and the unethical link to gambling



Loot boxes - virtual boxes in games that contain random prizes from 'skins to power-ups' that can significantly increase chances of winning.

- Since 2017, the Government has shown interest in loot boxes and their association with gambling.
- The Gambling Commission has confirmed that they do not currently constitute gambling because they do not contain a facility to 'cash-out' in a game. 'Cashing-out' is often enabled by third party websites, which does constitute gambling. The Gambling Commission concluded action against the FutGalaxy website, February 2017, ordering two YouTubers to pay £91k in fines and costs for providing a facility for gambling that was parasitic off the FIFA football game and accessible to children.

Sources: <https://www.eurogamer.net/articles/2017-12-14-the-big-interview-the-gambling-commission-on-loot-boxes> and http://tiga.org/news/uk-government-action-loot-boxes#_ftn3

The Internet Safety Strategy Green Paper



Aims to 'make the UK the safest place in the world to be online and to ensure the UK has the world's best digital economy and agree norms for the online world.'

White Paper due in December 2018

Social media, online bullying, loot boxes as a form of gambling are all hot topics.

Read on here: <https://www.gov.uk/government/consultations/internet-safety-strategy-green-paper>

What is GDPR



“The General Data Protection Regulation (GDPR) is a legal framework that sets guidelines for the collection and processing of personal information of individuals within the [European Union \(EU\)](#).

The GDPR sets out the principles for data management and the rights of the individual, while also imposing fines that can be revenue-based. The General Data Protection Regulation covers all companies that deal with data of EU citizens, so it is a critical regulation for corporate compliance officers at banks, insurers, and other financial companies.

GDPR came into effect across the EU on May 25, 2018.” [Investopedia, 2018](#)

GDPR Key Concepts



The Data Protection Act (2018) still exists but governs UK only. GDPR is EU based and developed in response to need for consistency in data handling across EU trade (inclusive of non-EU business trading in the EU. GDPR is valid despite Brexit

Who/what does it apply to

Controller – decide how and why data is processed

Processor – process data. Now have legal obligations and can be prosecuted in the event of a breach

Personal Data – is information that relates to an identified or identifiable individual can include IP addresses

Sensitive Personal Data - data revealing health, racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, (genetics and biometric details)

Consent

Must be freely given, specific, informed and unambiguous

Right of Access – right to obtain details of what is on ‘file’ for you

Right to Rectification – personal data can be changed, edited and updated

Right to Erasure – no absolute right to be forgotten – but data can be removed under specific circumstances

Read on here: [Overview of the General Data Protection Regulation \(GDPR\), ICO, 2017](#)



BBC GDPR Quiz



GDPR in Context: The Facebook/Cambridge Analytica Scandal



What are the allegations against Cambridge Analytica?

harvested personal information from more than 50 million Facebook profiles without permission to build a system capable of targeting US voters with personalised political advertisements based on their psychological profiles

As of May 2018, Cambridge Analytica closed it's doors to business but is still under investigation

- **How is Facebook involved in the scandal?**

Facebook had known about the Cambridge Analytica data breach since 2015 due to a 'permissive graph API' and reacted slowly.

- They have run adverts in several major UK and US newspapers apologising for the data breach, and have said they are investigating other apps that had access to large amounts of user data.
- The ICO (Information Commissioner's Office) announced in July that Facebook will be fined the maximum amount of **£500,000** under the old Data Protection Act (1998). If the incident had occurred after GDPR came into force (May 2018) they could have been fined **4% of their global turnover - £1.6 billion!**

Sources: <https://www.theguardian.com/news/2018/mar/26/the-cambridge-analytica-files-the-story-so-far> and <https://www.theguardian.com/uk-news/2018/may/02/cambridge-analytica-closing-down-after-facebook-row-reports-say> and <https://www.theguardian.com/technology/2018/jul/11/facebook-fined-for-data-breaches-in-cambridge-analytica-scandal>

What can GDPR mean for you as an IT student at work?

- You might be involved in helping the employer to keep their networks and systems secure i.e. restricting the use of cloud services and unencrypted USB sticks
- Making sure that you keep any personal data safe and confidential i.e. locking your computer screen when away from your desk, making sure not to leave your laptops on trains etc.
- You would need to report any potential data breach or cyber attack to your supervisor as soon as you are made aware of them – GDPR requires companies to notify the ICO within 72 hours of becoming aware of any incident which could result in a risk to individuals.

Consider the implications; ethical, moral and legal



- You leave your job to go and work for their main competitor doing a similar role. You decide to take some of the work you carried out for your previous employer with you as you know it will help you in your new role.
- You reply to an email, including a spreadsheet with names and contact numbers of clients. The email trail also includes information that can identify other colleagues.
- You receive an email from an employer inviting you to an interview. You do not plan to attend the interview. Do you need to let them know?

PDIT Assessment 2: Professional Presentation

3rd December all day

How will you be assessed?

- You will be marked on:

Content – 40%

Use of Technology/Supporting Evidence – 20%

Delivery – 40%

- See the assessment scheme on page 23 of the IN2015 module handbook for more information about how you will be marked.



Professional Presentation – The Content

- Identify a technical employer that you would like to work for. You are required to research the employer and present about why you would like to work for them. Your presentation should last for 5 – 7 minutes and should include the following content:
 - Introduction: Brief information about yourself e.g. your name, course etc.
 - An overview of the employer you would like to work for; what they do, the sector they operate in, an overview of their size, main competitors and the company culture etc.
 - Why you would like to work for them.
 - Why you think you would be an asset to the company (you should evidence your skills e.g. you may wish to demo some code or demo a game or a website that you have developed, you may refer to your PDO).
 - An overview of a technology or project that the company uses or is involved with. Why does this interest you?
 - Identify a Legal, Ethical, Professional or Social issue which impacts this organisation, explain how this might affect the company any associated risks (refer to the week 9 lecture and workshop).
 - Use technology to support your presentation. Suggestions include **PowerPoint**, **Prezi** and **Google Presentation**. You can also use technology to evidence your strengths and experience e.g. you may wish to demo some code, a game or a website that you have developed, or you may wish to show evidence of volunteering projects or certificates gained.
 - Information about the company (why you want to work for them and the technology they use) should be referenced (i.e. gather information from the company website, their social media accounts etc).

Your 2:30pm Lecture in Geary this week is delivered by;

Experian “We unlock the power of data to create opportunities for people, business and society. At life’s big moments – from buying a home or a car, to sending a child to college, to growing your business by connecting it with new customers – we help you to manage your data with confidence so you can make the most of every opportunity.”

Useful Resources

BCS Code of Conduct; www.bcs.org/upload/pdf/conduct.pdf

- It Now – Ethics, Technology, Rights and Responsibilities, Summer 2018, BCS
- [Overview of the General Data Protection Regulation \(GDPR\), ICO, 2017](#)
- [Professionalism in IT, Hughes, C 2006](#)
- <https://www.cnbc.com/2016/03/29/apple-vs-fbi-all-you-need-to-know.html>
- [https://www.diffen.com/difference/Ethics vs Morals](https://www.diffen.com/difference/Ethics_vs_Morals)
- <http://www.ethics.org.au/on-ethics/blog/september-2016/ethics-morality-law-whats-the-difference>
- <http://fortune.com/2018/03/27/fbi-apple-iphone-encryption-san-bernardino/>
- <https://www.gov.uk/government/consultations/internet-safety-strategy-green-paper>
- <https://www.theguardian.com/news/2018/mar/26/the-cambridge-analytica-files-the-story-so-far>
- <https://www.linkedin.com/pulse/ethics-vs-morals-law-dr-arturo-perez>
- Source: <https://www.recode.net/2016/4/13/11644890/ethics-and-artificial-intelligence-the-moral-compass-of-a-machine>
- <https://www.technologyreview.com/s/527336/do-we-need-asimovs-laws/>