**Unit 1**

**Reflective Activity 1**

Read Correa et al. (2023) and Deckard (2023).

From late 2022, generative AI has taken the world by storm, and there is no field of activity that has not been impacted in some way. This is so much truer for Computer Science, which is where it all began. It is important to realise, however, that AI itself is nothing new, per se; and if the renaissance of the field after the ‘winter’ of the 1980s has been slow but constant, today there is the need of a different set of rules.

In the Correa et al (2023) paper, the authors state that “a lot of work is taking place to define the values and ideas that should guide AI advances. A key challenge, however, lies in establishing a consensus on these values, given the diverse perspectives of various stakeholders worldwide and the abstraction of normative discourse. Researchers and policy makers need better tools to catalogue and compare AI governance documents from around the world and to identify points of divergence and commonality.”

After reviewing the article and reading how different countries across the world deal with the generative AI revolution, discuss your views on the subject and recommend what you think could be a suitable course of action. You should justify your stance by also reviewing any papers included in this study or other relevant literature (additional links to industry have been provided as ‘Other Resources’ to the module). Your discussion should also highlight the impact your actions would have on applicable legal, social and professional issues. Please note that there is no right or wrong answer here, this exercise is to help you evaluate the legal, social ethical and professional issues that affect computing professionals in industry.

The word count is 1,000 for the reflection piece. You will have to include this in your e-portfolio, but you can submit it to your tutor for formative feedback before Week 12.

Assessment Information: Choosing the topic for your literature review and presentation

The topic of your literature review can only be selected from the pre-determined list of topics areas provided. Please see the list of topic areas and start to think which area you would like to investigate. Your literature review is due in unit 2 and you can submit an outline for the review in Unit 4. This outline submission will receive formative feedback only, to help you in your final submission. You can use the same topic for your research proposal presentation, due in unit 10. You can also submit an outline of the presentation in Unit 8, for formative feedback only.

If you are on the MSc stream, you can use the topic of your capstone project for your research proposal. A few points to note:

Your literature review cannot be on the same topic as your capstone project. Reusing substantive sections of your own work will be considered as self-plagiarism, which is an academic offence. Hence, your literature review would need to be substantially different to that you will be developing/using in the Project module/Dissertation submission.

In the Project module, you will have to create a formal research proposal to be reviewed by your project supervisors (formative but compulsory). This is to ensure that your project is viable and meets the specified criteria for your chosen area of research. The assessment in this module cannot capture the requirements of a proposal submission in its entirety. However, it will provide a valuable starting point for your research proposal submission in the Project module.

**Collaborative Learning Discussion 1 - Done**

Discussion Topic: Codes of Ethics and Professional Conduct

Pick a case study from the examples provided by the Association of Computing Machinery ([ACM](https://www.acm.org/code-of-ethics/case-studies)).

Review the application of the ethics code to the situation described and highlight the impact on any relevant legal (jurisdictional or non-jurisdictional) and social issues, as well as on the professionalism of the computing professionals involved. You should provide comparisons to the British Computer Society [(BCS) Code of Conduct.](https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct)

You should demonstrate that you understand the topic covered and ensure you use references to academic literature (including journals, books, and reports). This activity will provide evidence of your personal growth and your summary post is required in your e-portfolio.

Your initial posting should respond to the question and be at least 200 words long. Your initial post should be labelled "initial post".

Remember to save this to your e-portfolio.

**Unit 2**

Start planning your literature review based on your chosen topic from the list provided in unit 1. Your outline of the literature review can be submitted for formative feedback in unit 4 before final submission in unit 7. You can use the guidance document for the outline submission, and to prepare your review.

You should also take some time to consider your research proposal which could be based around the area you have chosen to investigate in your literature review or the topic of your capstone project (MSc students). Your outline of the proposal can be submitted for formative feedback in unit 8 before final submission in unit 10. Units 8 and 9 will be focussed on analysing data which, along with research methods, will also need to be considered in your presentation.

**Unit 3**

Considering your thoughts on your chosen area of interest for your project:

Which of the methods described in this week's reading would you think would suit your purpose?

Which data collection methods would you consider using?

Which required skills will you need to have or develop for the chosen project?

Note that you may find that you could be using a mixture of both the research methods and the data collection methods. These considerations will be included in your presentation of the Project Proposal in unit 10.

**Unit 4**

Upload Assignment

**Unit 5**

In 2018, Cambridge Analytica was in the news in the United Kingdom and the USA (Confessore, 2018) for obtaining and sharing data obtained from millions of Facebook users. They obtained the data through innocuous surveys on Facebook (you may have seen this type of survey and probably participated at times). This is probably the highest profile of surveys used for alternative means and, probably, monetary gains. However, this happens often through various media.

Consider how exactly this happened and why it was used. Find one or two further examples of inappropriate use of surveys and highlight the impact of all these examples from the various ethical, social, legal and professional standpoints that apply.

Record your findings in your e-Portfolio. You can also submit your findings to your tutor for formative feedback.

**Unit 6**

**Unit 7**

**Hypothesis Testing Worksheet**

**Collaborative Learning Discussion 2**

Discussion Topic - Case Study: Accuracy of information

Abi is a researcher at an institute and also a statistical programmer. Abi has received a project from a manufacturer to review the nutritional value of a new cereal, Whizzz. Having collected the necessary data, he now needs to perform the appropriate analyses and print the reports for him to send to the manufacturer. Unfortunately, the data Abi has collected seems to refute the claim that Whizzz is nutritious, and, in fact, they may indicate that Whizzz is harmful.

Abi also realises that some other correlations could be performed that would cast Whizzz in a more favourable light. “After all,” he thinks, “I can use statistics to support either side of any issue.”

Ethical Concerns

Clearly, if Abi changed data values in this study he would be acting unethically. But is it any more ethical for him to suggest analysing correct data in a way that supports two or more different conclusions?

Is Abi obligated to present both the positive and the negative analyses?

Is Abi responsible for the use to which others put his program results?

If Abi does put forward both sets of results to the manufacturer, he suspects that they will publicise only the positive ones. What other courses of action has he?

You should also highlight legal, social and professional impacts of any choices made. Please note that there are no right or wrong answers here and you may introduce local, as well as international, legislature in your responses.

You should demonstrate that you understand the topic covered and ensure you use references to academic literature (including journals, books, and reports). This activity will provide evidence of your personal growth and your summary post is required in your e-portfolio.

Your initial posting should respond to the question and be at least 200 words long. Your initial post should be labelled "initial post".

**Summary Measures Worksheet**

**Unit 8**

**Inference Worksheet**

**Unit 9**

**Charts Worksheet**

**Unit 10**

**Unit 11**

For this week’s seminar, you will need to review the Professional Skills Matrix which is based on BCS guidelines for Masters programmes and the Essex graduate attributes (see the e-Portfolio guide).

Compare the content to what has been covered so far in your modules.

Insert items you feel should be included in the list (some of these might even be based on personal accomplishments or related to your current employment).

Start gathering evidence from this module, as well as previous modules, which will substantiate your skill level.

Based on this, complete the SWOT analysis to help with your creation of an Action Plan.

Reviewing your degree programme as a whole, reflect on one module in particular that has impacted/will impact your professional practice. Use any reflection format described in the “Reflective Piece” section of the e-Portfolio guide.

During the seminar, we will walk through these documents and you will receive formative feedback on your work.

**Unit 12**