Ethical Consideration

Our team has listed **5 key ethics considerations** which are shown as below. Each consideration has a brief explanation.

1. **Data Privacy and Security** : Protecting sensitive personal and performance data within user profiles and test submissions.
2. **Fairness in Automated Scoring** : Ensuring the automated scoring system is unbiased and equitable across diverse demographic groups.
3. **Transparency of Scoring Algorithms** : The logic and mechanics behind the automatic scoring strategy should be clear to all stakeholders. And also should using the same logic when manually mark the test.
4. **Accountability for Scoring Accuracy** : How to addressing and rectifying the inaccuracies in automated scoring to maintain the trust of this system is crucial.
5. **Handling of Special Cases in Answers** : Applying the same rules to edge answers (answers which are partially correct or only spelling mistakes).

We use the **Ethical Decision Making** to analyse our considerations and get the rough action steps after this. (This need to update during real development) The ethical decision making process is shown as the frame below. **(The detailed analysing process of each ethical considerations are in the following pages)**

Ethical Decision Making [1] :

Ethical Decision Making is a common method to make ethical consideration. It contains eight steps, the brief explanation of each step are shown as below.

1. Stop and Think

a) Stop and quietly reflect on the situation.
b) Review available information and look at the big picture.
    i. Who benefits and who gets penalised from the situation?
    ii. What could be the consequences of the situation?
c) Understand why this situation has presented itself to you.
d) Think whether other engineers have encountered similar situations.

2. Clarify goals

a) Clarify if this is an ethical or legal situation, or both.
b) Clarify what the most desired outcome is, e.g. obtaining a contract/securing a client, public safety, increase income, prestige, etc.

3. Determine known and unknown facts

a) Determine whether there are missing facts from the available information that need to be researched.
b) What reliable resources (e.g., legal, ethical etc.) can be consulted?

4. Develop options

a) Identify alternate approaches to deal with the situation.
b) Outline the options.

5. Consider foreseeable results of the options

a) Consider the risks and benefits of each of the options.
b) Evaluate the best option.
c) Consider whether you are being honest with yourself.

6. Refer to a code of ethics for guidance of areas to be mindful of

a) Consider whether your decisions breach any of the codes.

7. Consult with respected staff or outside professionals

a) Discuss the situation with trusted professionals, legal professionals, etc. for their advice and insight.

8. Decide the course of action and take it

a) After going through the previous steps, you should have a clear understanding of what is expected from a professional, hence act on the decision in the most professional way.

b) Depending on the situation:

i. Professionally and respectfully decline the assignment/offer.

ii. Refer the work to another professional who will not be placed in the same situation.

iii. Inform the relevant authorities if necessary.

📚 **Reference:**

[1] National Society of Professional Engineers. (2021). NSPE Ethics Reference Guide. https://www.nspe.org/sites/default/files/resources/pdfs/Ethics/EthicsReferenceGuide.pdf