

## Engineering Ethics Toolkit - Guidance for reviewers

Thank you for reviewing a contribution to the [Engineering Ethics Toolkit](#). This document is meant to serve as a guide for your review.

After each section, a question is posed for you to consider in relation to the contribution.

On the contribution, use 'track changes' and comments to make suggestions related to each question (as required) that can guide the author in revisions. Return the contribution in Word (.docx) or equivalent format.

Aim to summarise your thoughts on the overall contribution and how much (if any) further work it needs from the author.

The author may want to reach out to you to discuss suggested amendments; please indicate if you do *not* want this opportunity to be offered to the author.

### Guidance articles

- [Guidance articles](#) are intended to provide expertise in engineering ethics and how best to embed learning into teaching practice.
- They aim to help situate our [case studies](#) in an educational context and to signpost to additional research and resources on engineering ethics.
- Guidance articles are meant to be overviews that a reader with no prior knowledge of engineering ethics could refer to in order to develop a baseline understanding and learn where to look for additional information.
- Before you begin to review, please [look at the existing guidance articles](#), since we hope that contributions will be fairly consistent in length, style, tone, and approach.
- Guidance articles should be approximately 500-1000 words (although they can be more in depth if necessary) and reference relevant resources (ideally online and open source), especially existing resources within the Engineering Ethics Toolkit.
- Guidance articles should use [Harvard referencing](#).

### Overview

- These articles are meant to be able to stand on their own as a piece of guidance on a topic; they are also meant to work alongside the other guidance articles so that taken together they form a sort of engineering ethics education handbook.
- Does the article both make sense as a single piece of guidance as well as fit in with the rest of the articles?

### Purpose

- Each article should inform, explain, and provide guidance on the topics. Put yourself in the perspective of an engineering educator who is new to ethics.

- Can you understand the information presented and would it help you?

### **Content**

- The content of the article should be organised and well developed. That is, it should be presented in a logical way and thoroughly explained.
- Does the author need to expand on any ideas or reorganise them to make them clearer?

### **References and Resources**

- Where additional explanation could be given, it might point to other resources, and where information is presented from another source, it needs to be properly referenced. Authors should especially point to other existing resources in the Toolkit.
- What additional resources or references should the author include?

### **Suggestions**

- Provide any further suggestions or guidance that you think would help the author(s) improve the article.
- Please use either the 'Comment' or 'Track changes' function in Word to add your comments and suggestions to the review. Reviewed articles should be returned to the author in Word file format (doc or docx).

### **Format**

- Guidance articles should largely aim to follow this format:
  - Premise;
  - Body of article, divided up into headed sections as necessary;
  - Conclusion (optional);
  - References: use [Harvard referencing](#);
  - Resources (ideally online and open source).

### **Corrections**

- If possible, aim to correct any spelling, grammar, or punctuation mistakes as you review, but remember that editing, proofreading and formatting are the next stage of the process.

## Case Studies

- Case studies should mimic the length, style, tone and format of [existing case studies](#). Before you begin to review, please familiarise yourself with some existing case studies to get a feel for the format and the approach.
- The audience for these case studies is educators seeking to embed ethics within their engineering teaching.
- Please see the [current research on good practice in writing case studies](#), which you may find helpful as you review, as well as our article on [creating the perfect recipe for a case study](#). This ‘recipe’ can guide you as you review so that you can encourage authors to include or develop other aspects of the case.

## Overview

- The case study should be presented as a narrative about an ethical issue in engineering.
  - Is there a strong narrative to the case?
- This issue should allow educators to address macroethical concerns (large-scale social, cultural, economic, environmental or political concerns) as well as microethical concerns (individual issues such as personal choices, professional practice, relationships, etc.).
  - Can the topic be addressed at both a macroethical and microethical scale?
- Additionally, there should be enough emphasis on the engineering part of the case so that technical material could be introduced.
  - Are there places where technical topics could be integrated?

## Authenticity

- Case studies are most effective when they feel like they are realistic, with characters that you can identify or empathise with, and with situations that do not feel fake or staged. Giving characters names and backgrounds, including emotional responses, and referencing real-life experiences help to increase authenticity.
  - Does the case have authentic characters and situations?

## Complexity of dilemma

- Many cases are either overly complicated so that they become overwhelming, or too straightforward so that they can be “solved” quickly. A good strategy is to try to develop multiple dimensions of a case, but not too many that it becomes unwieldy. Additionally, complexity can be added through different parts of the case so that instructors can choose a simpler or more complicated version.
  - Is there a clear dilemma in the case?
  - Does the case provide enough complexity to challenge users, but not so much that people might avoid engaging with it?

## Activities and resources

- The contributors should provide a variety of suggestions for discussion points and activities to engage learners, as well as a list of reliable, authoritative open source online resources, to both help educators prepare and to enhance students' learning.
- Are there sufficient activities and resources suggested?

## Suggestions

- Provide any further suggestions or guidance that you think would help the author(s) improve the article.
- Please use either the 'Comment' or 'Track changes' function in Word to add your comments and suggestions to the review. Reviewed articles should be returned to the author in Word file format (doc or docx).
- Any references should use [Harvard referencing](#).

## Format

The case study should be structured using the following format:

- Learning and teaching notes: This is an overview of the case and its dilemma, and how it relates to [AHEP's themes](#).
- Learning and teaching resources: A list of reliable, authoritative, open source online resources that relate to the case and its dilemma. These can be from a variety of sources, such as academic institutions, journals, news websites, business, and so on. We suggest a minimum of five sources that help to provide context to the case and its dilemmas. You may want to suggest an author flag up certain resources as suggested pre-reading for certain parts of the case, if you feel that this will enrich the learning experience.
- Summary: This sets out the case's initial situation and characters.
- Dilemma - Part one: This elaborates on the case and provides the ethical dilemma for the character.
- Questions and activities: This is where the author provides suggestions for discussions and activities related to the case and the dilemma.
- Further dilemmas: Some case studies are sufficiently complex at one dilemma, but if the case requires it you can provide further parts (up to a maximum of six).
- Further questions and activities: After each part, the author should provide further suggestions for discussions and activities related to the case and the dilemma.
- Assessment: If possible, the author should suggest assessment opportunities for activities within the case, such as marking rubrics or example answers.
- Keywords: On the submission form, authors will be prompted to provide keywords as well as to choose from a menu of educational aims, ethical issues, and professional situations highlighted in the case.

## Corrections

- If possible, aim to correct any spelling, grammar, or punctuation mistakes as you review, but remember that editing, proofreading and formatting are the next stage of the process.

## Case Enhancements

- Case enhancements are teaching materials and resources that help educators to employ the [ethics case studies](#) and lead the activities referenced within them.
- Enhancements provide crucial guidance for those who may be teaching ethics-related material for the first time, or who are looking for new and different ways to integrate ethics into their teaching.
- They may take the form of discussion prompts, debate or role play scripts, technical content related to the ethical dilemma, worksheets, slides, or other similar materials.
- Before you begin to review, you should familiarise yourself with [an existing case enhancement or two](#) since we want to be consistent in style and format.

## Purpose

- Imagine that you are an engineering educator who is new to ethics and new to using a case study. You turn to the case enhancement to help you employ the case study in your class.
  - Does the enhancement help develop and expand on the ideas in the case study so that learners can engage with the topics more broadly or deeply?
  - If not, what guidance is needed to make this possible?

## Presentation and Clarity

- Depending on the enhancement, contributors may have chosen to provide worksheets, slides, problem sets, or narrative prompts.
  - Is the enhancement explained in such a way that you could understand how to use it?
  - Is the material clearly introduced and described?

## Resources and Guidance

- Depending on the topic, educators may need additional resources or guidance to support their use of the enhancement. For instance, background information may be required or a technical topic explained.
  - Is sufficient material provided so that educators can easily employ the enhancement?
  - Any references should use [Harvard referencing](#).

## Suggestions

- Provide any further suggestions or guidance that you think would help the author(s) improve the article.
- Please use either the 'Comment' or 'Track changes' function in Word to add your comments and suggestions to the review. Reviewed articles should be returned to the author in Word file format (doc or docx).

## Format

The case enhancement should follow this format:

- States which case study the enhancement applies to.
- Overview: States which activity or discussion within the case study the enhancement expands upon. Gives an overview of the activity, how it might be implemented, how long it might take, and any other relevant points.
- Details any specific materials or software required for the activity.
- Lists any extra resources recommended in order to undertake the activity (it doesn't need to list any of the resources that are already provided in the original case study).
- Explains the activity in as much detail as is required (this will vary depending on the type of content being developed.)
- If possible, provides assessment guidance—marking rubrics, sample answers, etc.

## Corrections

- If possible, aim to correct any spelling, grammar, or punctuation mistakes as you review, but remember that editing, proofreading and formatting are the next stage of the process, performed by EPC staff.

## Blogs

- Blogs should be written by academics and other engineering professionals.
- They can be on various topics related to engineering ethics education, including their personal experience of using the Engineering Ethics Toolkit.
- Blog posts can be formal or informal, short and on a single topic, or longer and more considered.
- Please see '[Personal blogs](#)' for examples of what we have published so far.
- There are no hard and fast rules for blog content or style, as long as the theme is clear and related to engineering ethics, and the content will be useful to engineering educators.
- If possible, aim to correct any spelling, grammar, or punctuation mistakes as you review, but remember that editing, proofreading and formatting are the next stage of the process, performed by EPC staff.

**Last updated: July 2024 by WA**