

# Worksheet 9: Ethics and Professionalism

Updated: 16<sup>th</sup> February, 2022

This worksheet tries to get you thinking about the deeper aspects of right and wrong in software engineering.

## 1. Motivation

Come up with as many reasons as you can for *why* someone might behave unethically in a software project.

## 2. Imagining Harm

For each of the following systems, come up with a brief story that describes how a lapse of ethics/professionalism could lead to real harm to other people.

In each case, note the following:

- It may be easier to work backwards, first considering who could be harmed and how (physically, financially, socially, psychologically, etc.), what involvement the software might have in this, and what actual SE mistakes could lead to that.
- You may be able to come up with “nightmare scenarios”, but you could also describe more subtle problems. Both are valid!
- Mix it up. Don’t just rewrite the scenarios from the lecture, for instance.
- Really bad things tend to happen due to very high level management mistakes, and/or *multiple* mistakes piling up.

A single bug is generally not an ethical mistake itself, because we cannot reasonably avoid them. In software engineering there are (or should be!) ways of fixing bugs before they result in actual harm.

Here are the software systems to consider:

- (a) An video chat system.
- (b) A software system for controlling traffic lights.
- (c) An online banking system.
- (d) A software package for helping to design houses.
- (e) An aircraft autopilot.

End of Worksheet