

Role-playing hypothetical stakeholder scenarios

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WORKSHOP: ROLE-PLAYING HYPOTHETICAL STAKEHOLDER SCENARIOS

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ABSTRACT

Recently, the use of simulations, often in the form of role-plays, has found favor for developing an ethical mindset among students. Role-plays have been used with the goal of developing environmental awareness, gaining a better understanding of the principles of sustainable development and the need to develop environmentally friendly artefacts, making students aware of the constricting factors affecting their professional activity, as well as allowing them to reflect on the measures needed to change constricting structures and develop institutional frameworks more conducive to responsible action.

INTRODUCTION

Case studies and scenarios are common in engineering ethics education. Case studies have been criticized for focusing disproportionately on individual-level micro-ethical issues, such as a problem faced by a middle manager or new engineer in a company. The reality is often more complex and there is a need for pedagogical methods that can capture the complexity of the profession and realistic features of the professional environment.

BACKGROUND

Recently, the use of simulations, often in the form of role-plays, has found favor for developing an ethical mindset among students. Role-plays have been used with the goal of developing environmental awareness, gaining a better understanding of the principles of sustainable development and the need to develop environmentally friendly artefacts (i.e. [1], [2]) making students aware of the constricting factors affecting their professional activity, as well as allowing them to reflect on the measures needed to change constricting structures and develop institutional frameworks more conducive to responsible action [3].

Role-plays are an effective method for contributing to the development of the students' professional identity ([4]; [5]) and can familiarise students with the different subjectivities involved in the design and creation of an engineering artefact or decision process, each bringing different backgrounds, problem conceptualisation and desired outcomes ([6], [7]). They are able to achieve this as they provide context and situation, bringing the micro and macro together.

The workshop aims to respond to the need for developing teaching instruments for engineering ethics instruction, in particular, role-play scenarios and cases. Given that the workshop aims to initiate the development of new roleplays, the workshop organisers will encourage collaboration and co-creation by creating a cloud folder at <https://bit.ly/3am1zTn> that includes the notes and roleplay drafts initiating during the workshop discussion. We will work with templates and model documents to scaffold development of scenarios for role-play and also work on how to implement them in different settings. Participants will thus have the opportunity to follow up and finalize the case studies drafted. The role plays developed can then be incorporated by the participants in their own teaching. The opportunity to share role-play scenarios will create a community and participants will be able to apply and test their role-plays with other participants.

WORKSHOP SETUP

To allow participants to develop their own role-plays that can be used in their domain course we proceeded as follows: 1) participants were introduced to a designed template for role-plays, as described in the section above 2) participants were given examples of top-down or bottom-up roleplays developed by the authors 3) in breakout-rooms, participants proposed role-playing themes and followed the steps provided in the intro 4) participants reconvened in the plenary to discuss key insights or challenges that can be encountered during the application of role-plays 5) participants were given access to a database of roleplays and literature resources, available at <https://bit.ly/3am1zTn>

TEMPLATE FOR DESIGNING ROLE-PLAYS

Participants were introduced to a step-by-step guide to develop their own role-plays. It consists of the following steps:

1) Identifying a problem-situation

The problem-situation can affect one's local community or be relevant for one's national context. It can be meaningful for the local community through the lenses of safety, well-being, environmental impact, policy implications or the discrimination of specific groups. Such problem-situations involve polarizing actors and groups (i.e. Nuclear energy), and may be rooted in an incident or disaster (see role-plays by Johri on Boeing Max Crash on <https://bit.ly/3am1zTn> , in [8], [9], [10], [11] and Wilson on Chernobyl [12]).

2) Identifying actors

The identification process starts from mapping the stakeholders directly or indirectly affected by this issue or involved in the design and decision-making process for addressing this issue. This includes identifying the main typologies of individuals (i.e. manager, graduate engineer) or of main groups (i.e. consumer groups, environmental groups, lobbying groups, citizen associations). It also highlights the relevant characteristics of these actors, such as demographic characteristics, stance on the problem-situation, values, desired outcomes, potential losses, power status. The characteristics provided to students would enable positionality in regard to the problem-situation.

3) Providing rich contextual descriptions

This step focuses on the description of the physical, organizational or sociocultural context in which the problem is set. Contextual details could include aspects such as

“the nature of the business, agency, or institution in which the problem occurs, what is produced, annual reports, mission statements, balance sheets, and profit-and-loss statements, the values, beliefs, sociocultural expectations, and customs of the people involved, who sets policy, what sense of social or political efficacy do the members of the setting or organization feel, what are the skills and backgrounds performers and the hobbies and resumes of key players” [13: p 20].

Providing a rich contextual description might imply making the scenario as immersive as possible when implementing it, which can be achieved through the use of props and locations outside the classroom.

4) Preparing reflective questions

Role-playing by itself is not sufficient in raising student awareness about stakeholders or wider structural issues [3]. Role-playing a scenario is an opportunity to prompt students to reflect on the meaning of the solutions they opted for their own role and for the final solution. This can be facilitated by the insertion of opportunities and mechanisms for reflection on the role-playing activity (i.e. through intermediary and/or final questions). The answers collected have the potential to serve as research data for publication [6].

Overall, these steps will lead to the development of a roleplay scenario and of the roles that students can enact.

CONCLUSION

Role-plays can be a powerful instrument to raise students' awareness of local and national problems and how they affect different stakeholders. They facilitate teaching ethics in a macro manner, that looks beyond the individualistic responsibilities, decision-making and actions specific of microethical approaches.

To facilitate the development of role-plays, workshops focused on designing role-plays that bring together communities of educators and researchers can be useful. An additional step would be for educators or researchers themselves to initiate co-creation workshops involving a community or group affected by a specific problem, to render more accurately in the design of the role-play and of the actor roles the group's characteristics, perspective, values, needs or exposure to risks.

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