"AI IS NOT A GAME" – STUDENT ENGAGEMENT WITH ACADEMIC INTEGRITY THROUGH AN ADVENTURE STYLE GAME

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INTRODUCTION

The University of Southampton takes Academic Integrity (AI) seriously with the aim of helping students internalise and develop AI into lifelong good practice. Effective AI education is increasingly seen as essential with the focus being holistic, covering principles and values as well as understanding processes (Morris, 2015). The objective of this project is to develop students' understanding of what it means to work with academic integrity and how values translate into actions (Khan et al. 2021).

Current AI Education signposts students to online University resources, including videos and quizzes and includes teaching sessions, with different disciplines deciding on the best approach for their students. The University Academic Integrity Network (UAIN), whose membership includes students, student advisors, academics, librarians and administrative staff, recognised that some students would appreciate a more interactive, narrative-orientated approach through the use of scenarios, presented as dilemmas. Covid-19 restrictions required it to work online.

A game called 'AI is not a Game' was developed to address these requirements. The workshop will focus on the game developed and consider the use of such approaches with students as part of AI education. The workshop will consist of (1) an introduction, (2) an opportunity for participants to try the game, (3) a short presentation of the evaluation conducted and (4) a discussion with participants around the benefits, challenges and future direction of gamification and game-based education in AI, building on work by Khan et al. (2021). Whilst the scenarios have been designed to match the University's specific AI regulations, they could readily be adapted to suit other contexts. The workshop leads have experience in both AI education and game design for educational settings

GAME DESIGN

White (2020) and Khan et al. (2021) suggest that incorporating games within AI education provides a useful way to develop students' understanding. A process of brainstorming sessions together with the UAIN yielded the following design specifications:

- The game would be narrative-based and based on real life situations students may encounter.
- Vignettes of these real situations were collected from UAIN (including student representation as suggested by White, 2020) and incorporated in the game.
- A range of AI topics was selected for the game: plagiarism, self-plagiarism, collusion, cheating and use of unauthorised external support.
- Players choose an ending for each vignette. Some answers have more desirable outcomes than others.
- The game was primarily designed for group work but would be available for individual play as well and should be embedded within AI education to enable discussion with peers and academics.

The game was intentionally designed to interface flexibly with the existing teaching at any stage within the process. The game can give students an introduction to AI at the beginning of the teaching sequence, deepen discussion during the teaching sequence or act as a summative activity. An important aspect of the game is that it encourages collaborative discussions between students and between students and staff in order to enhance understanding of principles and practices in relation to AI (Sefcik et al., 2020).

A trial version was created using MS PowerPoint. Players are told that they have been assigned the role of 'Academic Integrity Ambassadors' (QAA, 2020) helping students in a range of scenarios with potential AI issues. After a brief set of instructions, players see a map of the campus scattered with pictures of students and professional services. Clicking on each student character takes players to a new screen which presents the AI dilemma the character is confronted with. Players then need to discuss the dilemma before moving to another screen to choose the advice they would give the character. After choosing, the number of points given to this choice is shown with a short explanatory feedback. Players return to the map to choose a new character.

The resulting game aligns with Tekinbas and Zimmerman's (2003) definition of games which must have (amongst others): an artificial conflict (in this case solving dilemmas of fictional characters), clearly defined rules (what players may or may not do) and quantifiable outcomes (in this case using a point system). Compared with the games highlighted on ENAI (2021), the unique features of this game include the AI ambassador role taken by the players, helping student-like characters, with the aim of helping them appreciate the longer-term relevance of their learning from the game. For each scenario, as well as the range of expected responses, players have the option to consider how many points they would allocate to additional outcomes they have considered.

PRELIMINARY EVALUATION

The trial version was piloted in October 2020 with 40 first-year undergraduates and small changes were made based on observations and informal feedback. A newer version was piloted in February to March 2021 with 120 MSc students, many from overseas. Ethics approval was obtained for a short online survey. After three online AI sessions, the game was played in small groups of 4-6 students. Each student was asked to assume a role in the group with the group leader running the game on their computer and sharing the screen. Participants were directed to the survey after playing the game. Questionnaire items probed students' perception of the game and included Likert-type items and open responses. Initial findings show that students thought the game was useful for their understanding of AI and highlighted the importance of concrete real-life situations. They found the game fun and indicated the importance of group work to the experience. Suggestions for improvement focused on the features of the game play such as how points are collected and how to navigate between the different screens. It is anticipated that further evidence from other cohorts will be available for presentation in the ENAI conference.

CONCLUSION

The game adds to the existing literature on games in AI education (Khan et al., 2021; White, 2020). We hope the workshop will further this discussion, leading to future developments and research.

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