


Code and Consequences - an Educational Game about Social Scoring

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Abstract: In this demo we present the serious game *Code and Consequences*. The learning application is implemented as a point and click adventure and discusses the possible influence of social scoring on society in a school context. The educational game was developed using the Escoria framework of the Godot Engine.

Keywords: Point-and-Click, Serious Games, Social Scoring

1 Concept and Design

In this paper we present the point-and-click learning application *Code and Consequences*. The goal of *Code and Consequences* is to experience the social and societal consequences of IT solutions, in this case social scoring systems, and to reflect on their possible effects. The target group of the learning application is students in grades 8 to 10. As is typical for point-and-click adventures, the actions and reality of the main character's life are to be reflected through interactions with non-player characters (NPCs). The player experiences different scenarios with social relevance, is asked to perceive negative as well as positive effects of technology in connection with social scoring systems and reflects them in his own perception.

The story follows Aristotle's common three-act structure (see Tab. 1), which is often used in game productions [Sc20]. After an introductory tutorial, the character spends the first act experiencing and navigating the world under the influence of a social scoring system. In the second act, the system's problems and benefits become increasingly apparent, culminating in a decision against a perceived injustice. In the third act, the problem is solved by the main character. The plots are humorous without satirizing the serious core of the story. The technical implementation as well as the aesthetics of the learning

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application implemented in the bachelor thesis by Selina Natschke [Se23] in the Godot Engine³ and the Escoria Framework⁴.

Type	Location	Goal
Tutorial	Classroom	Practice game interaction
Act 1: Everyday life in school	School (7 rooms)	Achieve a good social scoring value
Act 2: The world outside of school	City (5 rooms)	Manipulate the social scoring algorithm
Act 3: Chaos in the school	School (7 rooms)	Unraveling the chaos

Tab. 1: Storyline

The learning application is based on the content area *Informatics, Man and Society* of the *Recommendations for Educational Standards in Informatics for Secondary Level* of the German Informatics Society [Ge08]. Students should be able to describe the changes in their own actions at school and in their free time, comment on automated processes and evaluate their implementation, and evaluate the effects of automation in the workplace. The basis for a reflective discussion is the specialized knowledge of computer science that students are taught in computer science classes to be able to discuss interactions between computer systems and their social embedding. The learning application should therefore be embedded in the computer science classroom, where it should be discussed and reflected upon. The approach of introducing the social effects of computer systems through point-and-click adventures and thus making them usable as a medium in the classroom is the goal of our further research.

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³ <https://godotengine.org/>

⁴ <https://gamefromscratch.com/escoria-point-click-adventure-game-framework-for-godot/>