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# The Little Doormaid: toward an Interactive Experience about Mentoring, Social Innovation and Technology

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## **Abstract**

The paper describes a study that aims to develop a fairy tale story, The Little Doormaid into an interactive experience along with evaluating its social impact and learning outcomes through a series of workshops. The project is in a preliminary phase and the main relevance of the contribution is in its focus on different demographics (i.e., immigrants and girls). Future directions look to develop the interactive experience through inclusion of different stakeholders and co-design.

## **Author Keywords**

Video Games; Mentoring; Social innovation; Technology; Gender; Women in Videogames, Co-design

## **ACM Classification Keywords**

K.3.2 [Computers and Education]



Figure 4: The illustrations have been taken from <http://snarkies.deviantart.com/>

## Introduction

Gender issues in technology and specifically in computer games have been a research topic for many years. Twenty years have passed since Cassel and Jenkins wrote the groundbreaking *From Barbie to Mortal Kombat* that highlighted the ways gender stereotyping and related social and economic issues characterizes digital game play. Kafai and others [4] have recently edited a collection of contributions around the still relevant question about women and gaming. Video games are an important part of the life of adolescents. According to [2], boys reported playing an average of nearly 43 h per week, or over 6 h per day, and girls reported playing nearly 30 h per week, or over 4 h per day. According to [1], 88.5% of all game development workers are male; 83.3% are white; 92% are heterosexual.

The Little Doormaid is a story about technology, social innovation, and mentoring. This story, a modern fairy tale, has been presented in three workshops held with different demographics (one held with children age ten; one with immigrants recently arrived to Norway; and one with women) [3]. Tappetina, originally written in Italian, has been translated into English, Norwegian, Greek, and Chinese.

It has been observed that learning activities combined with gamification [5] generally leads to better learning outcomes. For this reason, as well as consumer demand (from workshop participants), I propose to develop the fairy tale into an ecosystem of interactive experiences, including a video game, an art installation, a co-design workshop in which the stakeholders develop new stories based on the Little Doormaid concept. The purpose of this paper is to

provide a preliminary introduction to the larger project of developing *The Little Doormaid* from a written story into a set of digital interactive experiences.

## Synopsis

Tappetina is a normal woman with children and everyday problems. At the same time, she is Doory Mentor, a superhero who helps other individuals to succeed with their technology projects. There are four main characters in the story: the Little Doormaid, Doory Mentor, Sissi and Iva Aggressi. Each character has a unique personality and role to play in the story. As an everyday mother, Tappetina (the Little Doormaid) is drawn between everyday duties on the one hand, and, on the other, her role as Doory Mentor in a battle to save the world from a great threat. The Little Doormaid, she has low self-esteem in all areas of her life beyond taking care of children and preparing good dinners. Together with the other neighborhood "doormat" women, Tappetina spends much of her time talking behind everyone's back.

Doory Mentor, on the other hand, is a strong and clear-headed superhero with ambitions and vision. As an enemy of harmful social status quos for women, Doory Mentor sometimes finds herself an adversary of the doormat women themselves. The doormat women do not know that *The Little Doormaid* and Doory Mentor are one and the same person. In the fairy tale, we follow Doory Mentor on her mission to protect an algorithm that can save the world from garbage. However, as is required in superhero stories, our superhero must have a nemesis. Doory Mentor's nemesis is the threatening Iva Aggressi, who wants to steal and destroy the algorithm and hurt Sissi. Sissi is the clever and hard working researcher and mum who

has developed the anti-garbage algorithm. Doory Mentor flies over northern Italy on her electronic flying mat to prevent Iva Agressi's plan, but she is stopped by a phone call. Will Doory Mentor find a balance between her domestic responsibilities and her determination to save world? The narrative is expressed using language that creates a playful and visual experience of people and events. The reader is taken into an exciting fantasy universe with characters that do wonderful things. Yet there are many parallels to the real world. Many people -young and old- share the everyday dream of being an extraordinary person.

In the real world, video games are an increasingly common and important leisure activity in which players can fulfill that dream. In a way, this is true for the Little Doormaid as well. The themes of technology, escapism and self-direction in the story make this fairy tale well suited to the video game format. At the conclusion of the tale, the fictional universe contains many unresolved missions for the heroine.

### Workshops

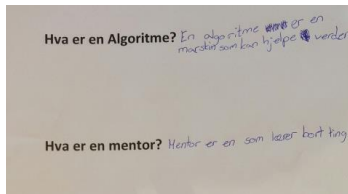
So far, during workshops of the Little Doormaid in its fairy tale format, we tested participant learning outcomes by asking each participant to answer simple

questions about algorithms and mentoring (see Figure 1, 2, 3). The questions were asked before participants had heard the story, and again afterwards.

When The Little Doormaid was workshopped, participants said that they looked forward to meeting Doory Mentor again in new adventures.



**Figure 1:** A snapshot from the workshop with immigrants.



**Figure 3** What is an algorithm? What is a mentor? To evaluate the effect of the message we have used paper questionnaires.



Figure 2: A snapshot from the workshop with the ten years old girls (anonymized)

### Conclusions

The research questions that will guide the development of the interactive experiences are centered around how to develop and how to evaluate the software that will augment the narration. Moreover, it will be important to define which stakeholders to address (age, gender, in school, out of school). Relevant to the theme of the workshop is the level of involvement of the stakeholders in the evolution of the narration and its evaluation. Will the system remember the interaction of the different stakeholders and learn and evolve over time?

### References

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