Name	Ciaran Van Hoeserlande
Group	EA-B
Student number	0722726
Topic of your paper	This paper will discuss the application of visual novels as an educational tool for social interactions.
Name of the student whose paper you reviewed	Marc Venbrux
Name of the student who reviewed your paper	Marc Venbrux

Author's Name: Ciaran van hoeserlande   Author's student #: 0722726

Reviewer's Name: Marc Venbrux   Reviewer's student #: r0665821

Page 1/2

These sheets are to be filled out, scanned and turned in together with your own paper **after being shown to your peer.** You are expected to review the peer's text with true critical intent, and to give them your feedback in a timely fashion. All sections are to be completed. **Make sure to get your peer's signature on the second sheet.**

Under the heading below, tick the appropriate box.

Introduction

- ☑ The main question, thesis, or problem is stated
- ☑ The author's aim in the paper is clear, i.e. what they want to do in the paper
- ☑ A sense of the paper's structure is given
- ☑ The steps are clear
- ☑ The author's own position or stance is laid out

Paper body

- ☑ The author sticks to their plan
- ☑ The author links the parts of the text logically
- ☐ The author explains their claims
- ☑ The author makes references to the readings and the issues discussed in class
- ☐ The author is persuasive

Formal appearance

- ☑ The paper has no more than three grammatical errors per page
- ☑ The paper has no more than three orthographic or typographic errors per page
- ☑ The sentence structure is acceptable
- ☑ The author cites at least <u>five</u> different sources
- ☑ The author cites these sources in an appropriate format

Peer Review Sheet for the Final Paper on "Persuasion", spring 2020

Author's Name: Ciaran van hoeserlande

Author's student #: 0722726

Reviewer's Name: Marc venbrux

Reviewer's student #: 0665821

Page 2/2

Understanding:

Would you say you *really* understand (truthfully!) what the author is trying to say?

■ Yes   ☐ Mostly   ☐ Only to a very limited extent   ☐ Not at all

Would you say the paper is persuasive – does the author try to persuade the reader?

☐ Yes   ■ Only to a limited extent   ☐ Not at all

Recount the main point(s) or argument(s) of the paper (do not use extra space)

- the available technology to use the visual novels

- how the novels can be seen as a persuasive tool according to the material seen in class

- the use real life evidence of the usefulness of said visual novels

- a personal story to make it more persuasive

If you had difficulties understanding the paper or parts of it, state the problem here (do not use extra space)

overall it was very well written and structured. You backed it up with scientific an evidence. However you didn't really try to convince the reader until the last part where you told a personal story

Recommendation (circle):

😊   😐   ☹️

Reviewer's signature: _Venbrux_   Peer/author's signature: Ciaran Van Hoeserlande

(Review paper **must** be signed by reviewer and author—if not, it does not meet the criteria for evaluation)

Peer Review Sheet for the Final Paper on "Persuasion", spring 2020

Author's Name: Marc Venbrux   Author's student #: 0665821

Reviewer's Name: Ciaran Van Hoeserlande   Reviewer's student #: 0722726

Page 1/2

These sheets are to be filled out, scanned and turned in together with your own paper **after being shown to your peer**. You are expected to review the peer's text with true critical intent, and to give them your feedback in a timely fashion. All sections are to be completed. **Make sure to get your peer's signature on the second sheet.**

I never received the author's paper, hence I was unable to review it. Please refer to this mail for further information.

Under the heading below, tick the appropriate box.

Introduction

☐   The main question, thesis, or problem is stated

☐   The author's aim in the paper is clear, i.e. what they want to do in the paper

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☐   The author sticks to their plan

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☐   The author makes references to the readings and the issues discussed in class

☐   The author is persuasive

Formal appearance

☐   The paper has no more than three grammatical errors per page

☐   The paper has no more than three orthographic or typographic errors per page

☐   The sentence structure is acceptable

☐   The author cites at least **five** different sources

☐   The author cites these sources in an appropriate format

Author's Name: Marc Venbrux   **Author's student #: 0665821**

Reviewer's Name: Ciaran Van Hoeserlande   **Reviewer's student #: 0722726**

Understanding:

Would you say you *really* understand (truthfully!) what the author is trying to say?

☐ Yes   ☐ Mostly   ☐ Only to a very limited extent   ☐ Not at all

Would you say the paper is persuasive – does the author try to persuade the reader?

☐ Yes   ☐ Only to a limited extent   ☐ Not at all

Recount the main point(s) or argument(s) of the paper (do not use extra space)

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If you had difficulties understanding the paper or parts of it, state the problem here (do not use extra space)

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Recommendation (circle):

☺   ☺   ☹

Reviewer's signature: *Ciaran Van Hoeserlande* Peer/author's signature: _____

(Review paper **must** be signed by reviewer and author – if not, it does not meet the criteria for evaluation)

Unleashing the Educational Power of Visual Novels

Ciaran Van Hoeserlande

KU Leuven – Campus Group T

Word Count: 2314

June 14, 2020

Unleashing the Educational Power of Visual Novels

It was the perfect setting for a successful date. And yet, here you are, sitting slouched in a chair after being rejected by the girl of your dreams. You cannot help but think about what went wrong and whether you should have gone about it another way. Unfortunately, there is no way to turn back time, and thus you are stuck with this predicament. Furthermore, there is not even a single guarantee that you will not screw up next time, assuming there even is a next time. Is there not a tool out there that helps you prepare for complex social interactions? A safe environment allowing you to make mistakes and learn from them?

There actually is. Visual novels can serve as a powerful educational tool for social interactions. This paper starts with a general assessment of the availability of technological resources for their implementation, followed by a thorough discussion of visual novels within the course framework. After that, the findings of several scientific journal articles about the subject are assessed and interpreted. Next, some important lessons are drawn from personal experience. Finally, the paper is briefly summarized in a closing paragraph.

Visu-what?

Visual novels, not to be confused with light or graphic novels, are a sub-genre of Japanese adventure games. They are a form of interactive fiction, often containing branching narratives where the outcome depends on the player's choices ("Visual Novels (Concept)," 2018). As such, visual novels are frequently regarded as the digital evolution of gamebooks. In contrast to gamebooks, however, visual novels are not subject to physical limitations. On top of that, the text-based interactive stories in visual novels are accompanied by pictures, sound effects, music, and sometimes even voice acting and/or cutscenes ("Visual Novels aka: Visual Novels," n.d.).

Technology Paves the Way

The personal computer, an open platform, is where the visual novel genre has seen most of its activity (Shawn, 2018; "Visual Novels (Concept)," 2018). In 2015, 94% of children between the ages of three- and 18-years old living in the United States of America had a computer at home (National

Center for Education Statistics, 2015). Codley, Cradler, & Engel (1997) reported that 98% percent of US schools own computers in a 10 to 1 student-to-computer ratio. From this data and the knowledge that technology is becoming increasingly commonplace with every passing day, it is safe to conclude that every student in a first world country has access to a computer and, by extension, a platform on which to learn through visual novels.

Even though the personal computer is the preferred release platform for independent visual novel developers, for educational purposes, it would be smart to also design these games for mobile devices. Although student smartphone possession (86% in 2014 (Chen, Seilhamer, Bennett, & Bauer, 2015)) is lower compared to computer ownership, there is a solid reason why this is encouraged. Unlike computers, mobile devices are lightweight and compact. As a result, they can be easily carried around and interacted with anywhere at any time. The inferior processing power associated with smartphones are of no significant consequence to the playability of visual novels; the latest visual novels can be properly run by a computer with 2008 hardware. Such hardware is trumped by many of today's cellphones (McCarty, 2018).

But what about storage space and internet connection? "A lot of visual novels" (2012) take up around five gigabytes of memory. Considering that today's smartphones come with an average internal storage capacity of 80 GB (Sujeong, 2019) and several integrated expansion options, size does not seem to pose a significant problem. Neither does the availability of an internet connection; visual novels are single-player games and therefore do not require an internet connection besides the initial download. According to EducationSuperHighway (2019), 99% of US school districts have internet access. When students do not have internet access at home, they can utilize their school's Wi-Fi to download course material.

The previous paragraphs demonstrate that the necessary technological building blocks are already in place to implement visual novels as an educational tool for social interaction. Furthermore, employing digital tools to teach is not new and took a high flight with the COVID-19 pandemic. In just a few days, KU Leuven's administrative and teaching staff were able to make an effective

transition to digital education. 94% of US schools report that digital learning is already happening in at least half of their classrooms (EducationSuperHighway, 2019).

Wait, We Learned Something?

In his book *Persuasive Technology*, behavioral scientist Fogg writes about "how computers can be designed to influence attitudes and behaviors" (Fogg, 2020). He suggests a triad as a classification by the functional role of technologies: as a tool, a medium, and/or a social actor. Before discussing these three roles in the following paragraphs, the author would like to highlight an additional aspect forwarded by Fogg to illustrate the persuasive power of visual novels.

According to Fogg (2002), there is one factor that grants computing technology an edge over traditional media when it comes to persuasion: interactivity (p. 6). A persuader's influence is greater if he adjusts his tactics to the situation at hand. One such way in which he can achieve this is by taking into account user feedback. As pointed out earlier, as opposed to traditional books, a visual novel's narrative is swayed by the player's choices. The game accustoms its playthrough, and therefore its persuasion techniques, based on user input. This aspect sets the stage for how visual novels can function as a tool.

Visual novels can take upon the role of tools as they lead people through a process that they would otherwise have to reluctantly go through (Fogg, 2002, p. 32). For example, Ivan Kaltman (2019), a school-based occupational therapist, investigated the effect of replacing "a traditional fantasy unit with a digital narrative game" in a fourth-grade class. The answers to a poll conducted at the end of the study showed that 75% of the students preferred the digital format to all other (both interactive and noninteractive) reading formats. Because the narrative in visuals novels depends on the player's actions, visual novels provide tailored experiences. A customization and options menu in which the player can alter specific settings further capitalize on this aspect of personalization.

The branching narratives are key to the success of visual novels within an educational context. They provide students with an experimental medium in which they can safely explore cause-and-effect relationships (Fogg, 2002, p. 62), without the real-life consequences like hurting others. With

the compression of time, the repercussions of decisions become apparent almost immediately (Fogg, 2002, p. 63), speeding up the learning process. Additionally, visual novels support save points and offer replayability. Users can return to a specific situation, alter past choices, and observe how new decisions lead to different outcomes.

Since the text-based interactive stories are accompanied by static or sprite-based visuals, visual novels can serve as social actors. They can utilize all primary types of social cues (physical, psychological, language, social dynamics, and social roles) to stimulate the player to make inferences about social presence (Fogg, 2002, pp. 90 – 91). For example, developers implement characters with dynamic facial expressions (physical) and unique personalities and/or backstories (psychological). These characters can then be voiced by real individuals (language), reward the player for making good choices (social dynamics), and take on social roles. Subsequently, the player might grow attached to these characters as if they were real, therefore becoming more susceptible to what they have to say.

Science Is Not Just About Chemistry

Admittedly, not because visual novels look persuasive on paper that they are so in reality. Hence, scientists have conducted research to analyze the effects and efficiency of game-based learning. So far, most of these studies conclude that the integration of games in classrooms has a positive impact. Three of these studies and their findings are summarized in the paragraphs below.

Pancasila, the Indonesian state philosophy ("Pancasila | Indonesian political philosophy," 2013), "as the basis of the Indonesian nation's life view needs to be understood by the Indonesian people, especially the younger generation" (Andrew, Henry, Yudhisthira, Arifin, & Permai, 2019, p. 353). However, because Pancasila is an incredibly theoretical concept, not a lot of Indonesian adolescents are inclined to learn about it. Researchers developed a game employing the visual novel genre to increase the interest among young people to study Pancasila. They arrived at two important conclusions. First of all, they noticed how an important concept that is too theoretical for the younger generation can be explained in an easily understandable way through visual novels. Secondly, they

observed that the learning experience is greater when the used game contains interesting gameplay and an easy-to-understand story (Andrew et al., 2019, p. 358).

Another group of researchers created a visual novel dubbed *Amigo*. Their aim was to teach young Japanese college students about proper nutritional practices and eating disorders, in the hopes that these students would lead a healthier lifestyle. They tried to accomplish this by encouraging undergraduates to help the in-game main characters recover from anorexia nervosa (Salazar, Nakajima, & Alexandrova, 2013, p. 238). In the end, this approach "managed to teach 4 out of 5 topics on average and motivated half of the students to put the knowledge into practice" (Salazar et al., 2013, p. 243).

The final article suggests how visual novels cannot only educate but also persuade in terms of social interaction. *Hikikomori* is an extreme form of social reclusion in Japan characterized by adolescents isolating themselves for more than six months inside their homes (Teo & Gaw, 2010, p. 444). *Hikikomori* often spend their days playing videogames or surfing the internet. Consequently, they can easily be exposed to visual novels. These visual novels could then serve as a viable method of social reentry for *hikikomori*, by satiating their need for belonging (Lu, 2014, pp 58 – 59).

Yeah, It Is Personal

To further illustrate the significance of visual novels, I would like to share some of my personal experiences with visual novels. I first came into contact with the visual novel genre back in my last year of high school. During one of our many after school conversations, my best friend recommended me to play a game called *Doki Doki Literature Club* (*DDLC*). I was a bit skeptical at first because, on the surface, the game presented itself as this cutesy dating simulator. Nevertheless, after some more convincing by my best friend, I decided to give it a try. At first, *DDLC* seemed to be exactly what it looked like: a simple dating simulator. At some point in the story, however, your female best friend confesses her love for you. You are presented with two options: either you gently reject her or you tell her you feel the same way. After having made your choice -which was rejecting in my case-

, you say goodbye to her. The next day, you go to her house, walk into her room, and discover she hung herself.

With an open mouth, I stared at the screen in horror. Chills ran down my spine. I was so shocked that I quit and uninstalled the game. In the days following, I gave it some thought. Suddenly, I realized what the game was trying to convey: even when people are dealing with depression or suicidal thoughts, they still might come across as cheerful. In my opinion, this was one of the lessons that would not have sunk in even if I had taken it in with mother's milk. After reinstalling and finishing *DDLC*, I took a break from the visual novel genre for a while.

Then, last year, during the exam period in June, I came across the visual novel *Katawa Shoujo*. I needed something to take my mind off the constant studying and decided to give it a try. As it turns out, it was not as lighthearted as I had expected. Just like *DDLC*, *Katawa Shoujo* is a dating simulator, but unlike *DDLC*, it revolves around winning the hearts of girls with a disability. Because of this, I had the urge to protect them. After several playthroughs, it became clear that this approach was perceived as belittling by the girls. They expressed how they could stand up for themselves and wanted to be treated like any other person. *Katawa Shoujo* taught me that I should not immediately assume a protective role when I meet a person with a disability. After all, they are just as human as everyone else.

The final visual novel that resonated with me was *missed messages.*. Its short completion time is no indicator of its emotional impact. Similar to *DDLC*, it touches upon the topic of suicide. This is not apparent from the start, as the title makes it seem as if the 'missed messages' are digital in nature. After the first playthrough, however, you realize that this is not the case. Instead, the missed messages refer to the "the actual messages you should have been paying attention to regarding May," your roommate, "being a suicide risk" (Moore, 2019). As such, the first playthrough serves to put you in the right state of mind.

At this point, it might come across as if every choice in a visual novel has a significant impact on how the story will end. This is not the case. Many visual novels contain several trivial decisions

that do not alter the outcome. For instance, the suicide scene in *DDLC* is inevitable, even when the player chooses to express his feelings. This demonstrates yet another important aspect; sometimes a real-life outcome is just not within an individual's control.

Opinions Can Be Dangerous

It is imperative to mention the danger that accompanies persuasive media, though: "The rules built into the system may not be based on the best knowledge of cause-and-effect relationships but rather on the bias of the designer" (Fogg, 2002, p. 67). As a result, such a system might not be the most accurate or completely objective, as it can be tainted by the developer's bias. In the case of visual novels, this risk can be reduced in two ways. In the first place, the number of branches within the narrative can be increased. Statistically, the greater the sampling, the more trustworthy the sample. The second approach is to implement procedural generation. For example, in *DDLC*, adding computer-generated randomness would result in a slight chance of the best friend not committing suicide.

A Novel Future

Scientific research and personal experience confirm that visual novels have the potential to serve as powerful educational tools for social interactions. The technological building blocks for implementation are in place. It is now up to the cooperation between developers and the teaching community to unleash the educational power of visual novels.

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