

Design of a 2D Animated Short Film About the Dangers of Online Gambling

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This study discusses the design of a two-dimensional (2D) short animated film intended as an educational medium to raise awareness among young people about the dangers of online gambling. The increasing involvement of youth in online gambling activities serves as the primary background for this creative project. The research employed a Research and Development (R&D) method with a descriptive qualitative approach, consisting of pre-production, production, and post-production stages. In the pre-production stage, data were collected through observation and interviews with individuals who had prior experience in online gambling. The collected information was developed into a storyline, character designs, and storyboards representing the everyday lives of modern youth. The production process utilized Toonboom Harmony 17 software with a combination of puppet animation and traditional frame-by-frame animation techniques to produce dynamic and expressive character movements. The post-production stage involved visual and audio editing to strengthen the delivery of the film's moral message. The final outcome of this study is a short 2D animated film that presents an educational narrative about the negative impacts of online gambling, including financial loss, social disruption, and psychological pressure. The results demonstrate that animated media can serve as an effective communication tool to convey moral and social messages creatively and engagingly to a young audience.

Keywords: Animation, Short Film, Education, Online Gambling

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1. Introduction

Technological advancements are currently rapid and increasingly sophisticated [1]; the internet, in particular, has become a fundamental necessity for modern society [2]. A survey by the Indonesian Internet Service Providers Association (APJII) indicates that the number of internet-connected individuals in 2025 is projected to reach 229,428,417 out of a total Indonesian population of 284,438,900 [3]. Internet access is easily available at any time via computers, laptops, and mobile phones. Young people constitute the demographic group that spends the most time online; the internet brings both positive and negative effects. One negative consequence of internet usage is online gambling, which poses a threat to the youth. Data from the Financial Transaction Reports and Analysis Center (PPATK), processed by the Katadata Insight Center (KIC), reveals that the majority of online gamblers in Indonesia fall within the productive age group: 55.44% of recorded players (between 2017 and 2024) were aged 30–50, while 37.6% were aged 21–30 [4].

The impact of online gambling extends beyond economic loss, leading to a decline in academic performance, family conflict, mental health issues, and even criminal activity. Users often overlook the ease with which they can top up their gambling balances via bank transfers. Online gambling providers employ tactics to manipulate outcomes such as engineering initial wins to create the illusion of profit designed to foster addiction [5]. Online gambling can also cause social problems, such as the breakdown of relationships with

family and friends; addicted players often prioritize the games over more beneficial social activities, leading to social isolation and severed ties. Furthermore, it can result in financial hardship, as players spend money on gambling rather than on daily necessities [5]. Individuals typically try these games in hopes of making a quick profit. Economic factors are the primary driver for participation in online gambling. The consequences for young people are significant, particularly the negative impact of becoming trapped in debt [6].

Gambling is no longer an unfamiliar phenomenon in society; online gamblers come from all walks of life, regardless of gender, age, or economic status [7]. The fact that this phenomenon is viewed as commonplace or even normalized is deeply concerning to the author regarding public awareness of the impact of online gambling. This is particularly alarming given the large number of school and university students who engage in online gambling [8]. To address this issue, the author has created a 2D animated short film designed to educate the public about the dangers of online gambling, with the aim of raising awareness especially among young people. 2D animation was chosen as the medium because it allows complex messages to be conveyed through simpler visual representations.

2. Literature Review and Problem Statement

Online gambling is a form of wagering involving money that is easily found on the internet and readily accessible to users. It represents a modern form of gambling that utilizes electronic media and internet networks to conduct betting activities [9]. Gambling is defined as the deliberate act of wagering something of value often without fully realizing the associated long-term risks based on specific expectations regarding uncertain outcomes, such as games, matches, races, and other events. The uncertainty of the outcome generates both anticipation and tension for the gambler [10]. The impact of online gambling extends beyond the individual to society at large, manifesting in issues such as mental health problems ranging from stress to suicide financial instability caused by rapid losses and mounting debt, and a rise in criminal activity linked to online gambling [11].

A short film is an audiovisual work of brief duration typically no more than 10 minutes used to convey a message concisely and effectively while also being cost-effective; generally, short films run for less than 60 minutes. In many countries such as Germany, Australia, Canada, and the United States short narrative films serve as experimental laboratories and stepping stones for individuals or groups looking to eventually produce feature-length films. Short films possess distinct characteristics that set them apart from feature films; this distinction does not stem from a lack of depth in meaning, ease of production, or limited budgets, but rather from the fact that short films offer performers greater freedom of expression[12].

Animated video is a type of audiovisual medium combining sound and moving images that is highly effective for enhancing knowledge. This method is more engaging than reading textbooks because the messages conveyed through animated video leave a lasting impression. Consequently, using animated video for education is one strategy to improve knowledge [13]. 2D animation is a form of animation created in two dimensions; animators produce images and characters in a 2D format and bring them to life through movement. This type is considered a traditional form of animation, characterized by flat characters lacking volume and movement restricted to up, down, left, and right directions. Examples of 2D animation include *Tom & Jerry*, *Scooby-Doo*, and *SpongeBob SquarePants*. A recent example of 2D animation produced by Indonesian creators is *Si Juki The Movie*, which was inspired by a popular Indonesian comic [14]. The production process adheres to 12 basic principles: squash and stretch, anticipation, staging, straight-ahead action and pose-to-pose, follow-through and overlapping action, slow-in and slow-out, arcs, secondary action, timing and spacing, exaggeration, solid drawing, and appeal [15].

3. Method

Research Approach

The research method employed is Research and Development, utilizing a descriptive qualitative approach to produce an animated work. Additionally, the author gathers data from relevant scientific journals. Data collection involves observations and interviews with young people residing in the Duta Mekar Asri Cileungsi Kidul housing complex who have struggled with online gambling addiction. These interviews aim to explore various aspects of online gambling ranging from the reasons behind their initial interest (such as the allure of instant financial gain) to the negative consequences of their addiction, including financial losses and reduced productivity.

Design Framework

The design framework guiding the creation of this 2D animation begins with observing phenomena within society, followed by conducting observations to formulate a title. Once the title is determined, the design framework which serves as the basis for the story concept is outlined, as illustrated in the figure below.

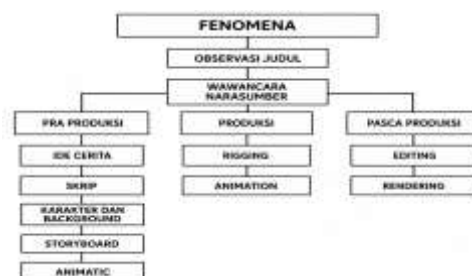


Fig. 1. Framework of thinking

4. Results And Discussion

Animation production involves three stages: pre-production, the initial phase focusing on conceptualization and design; production, where planned ideas are brought to life as 2D animation; and post-production, the final stage dedicated to refining the animated work.

Pre-production

Pre-production is the initial stage involving the development of the story concept, script, character designs, storyboards, and animatics. This phase begins with formulating the story idea. The concept derived from observations and interviews with sources is adapted into an animated film narrative to ensure clarity and accessibility, using Microsoft Word.



Fig. 2. Moodboard

The next stage involves scripting the dialogue and narration between characters, as well as outlining the storyline from beginning to end. This process entails crafting the dialogue, establishing the setting and atmosphere, describing the weather, and structuring the plot.

Script

Bukan saat memperdebatkan kuasa atau dari langit dan pintu, tampak depan kostean Raka dan dalam kamarnya, di dalam Raka sedang bersiap-siap untuk menuju perkuliahan. Menampilkan kost luar dan dalam penuh dengan kostean.

Raka:

Ini udah... itu udah... sampean berangkat.

Raka berangkat dengan berjalan kaki karna kesan ia tidak jauh dari kampusnya.

Menampilkan Raka berjalan di tempat dengan background perkuliahan.

Dengan *sawana* anak kost.

Narator:

Raka mahasiswa berprestasi di kuliah sambil berkuliah

Untuk membiayai kuliah dan ibunya.

Sesampai di kampus Raka melihat suasana kampus dan melihat pertemanannya atau mahasiswa sekitar kostean lain dan masuk kelas dan di pelajar atau cara kostean.

Menampilkan kampus dan mading area.

Raka:

Akhirnya sampai juga... masuk eker

Menampilkan eker sedang melihat madding dan ada namanya di atas madding menjadi mahasiswa berprestasi.

Fig. 3. Creating a Script

Another aspect of production involves character design the process of creating the visual appearance of a figure or character. The goal is to create a character that is unique, easily recognizable, and aligned with the story being told. The process entails finding suitable animation references, tracing the image using brushes, and applying color with the paint bucket tool, all within Adobe Photoshop.



Fig. 4. Creating a character design in Adobe Photoshop

The next stage involves creating backgrounds to establish the setting or atmosphere where the story takes place and to bring the animation to life. This process entails finding visual references for the setting and then applying them in Adobe Photoshop by tracing images with brushes and using the paint bucket tool for coloring.





Fig. 5. Creating a background in Adobe Photoshop

In the subsequent stages, storyboards and animatics are used to streamline the process and save time for animators, as the shots, camera angles, durations, and script have already been structured within these formats. Rough sketches are created using brushes in the storyboard, and shots are marked using Adobe Photoshop; the storyboard is then assembled into a complete animatic though the resulting animation may appear stiff using the CapCut application.

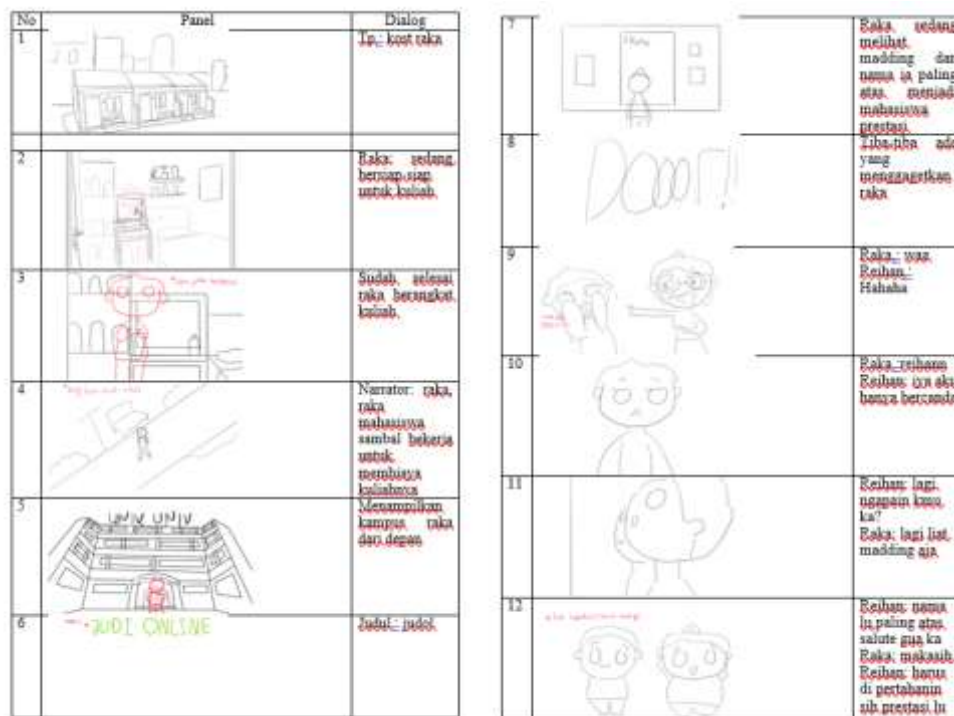


Fig. 6. Storyboard and Animatic

Production Process

The production process follows the pre-production stage; during this phase, the animator brings the animation to life through rigging and animation using Toonboom Harmony 17 software. In the rigging stage, a skeletal structure is applied to the image assets intended for animation using the puppet animation method; rigging is employed to streamline the workflow and save time, as it eliminates the need for frame-by-frame redrawing. Characters are constructed piece by piece from head to toe and assigned pivot points and parent pegs to align them with the animation skeleton, with all components subsequently integrated using a composite node to ensure they are properly connected. Toonboom Harmony 17 is used for this process.



Fig. 7. Creating a rig in Toon Boom Harmony 17

Next comes the animation process, a stage where the animator moves the character by gradually shifting its bones to create movement. This film employs a combination of puppet animation and traditional animation techniques to achieve dynamic movement.



Fig. 8. Creating an animation in Toon Boom Harmony 17

Post-production

Post-production is the final stage of animation creation, where all elements are assembled through editing and rendering using CapCut. This final phase involves combining shots and adding desired background music and sound effects; it also serves to identify any flaws in the film prior to the rendering process. The editing workflow entails importing shots, cutting out unused scenes, and adding transitions, sound effects, and music, followed by the rendering stage via exporting.



Fig. 9. Editing and rendering process in CapCut

Discussion

This section discusses the final outcome of the 2D animated short film project, which addresses the dangers of online gambling among young people. The discussion focuses on the produced work, covering visual aesthetics, the storyline, characters, and the moral message conveyed through the medium of animation.

The resulting film features a storyline that depicts the reality of young people trapped in online gambling, illustrating the various negative consequences such as financial loss, reduced productivity, and the deterioration of social relationships. The narrative is kept simple and accessible to ensure the moral message is clearly communicated to a teenage audience.

Regarding visual aspects, the animation employs a 2D style featuring expressive characters and settings that reflect the atmosphere of contemporary youth life. The use of bright yet contrasting colors in emotional scenes amplifies the sense of conflict and reinforces the story's moral message. The main character is designed with expressions that shift in tandem with their emotional arc ranging from curiosity and greed to regret allowing the audience to deeply experience the character's psychological journey.

The film successfully presents a story relevant to current social phenomena, particularly among the younger generation, who are vulnerable to the influence of online gambling. The moral message is conveyed through the character's internal conflict and a resolution that serves as a lesson against succumbing to the temptation of instant gains. Through its communicative presentation, the film functions not only as entertainment but also as an effective educational tool and a vehicle for social campaigning.

Cinematic elements such as camera movements, scene transitions, and sound effects further enhance the story's atmosphere. The background music is selected to match shifts in mood, transitioning from calm moments to high-pressure scenes, thereby allowing the audience to feel the tension and emotional impact. This harmonious blend of visuals and audio brings the film to life, making it engaging to watch.

Conceptually, the animated film successfully achieves its goal as an educational medium that raises awareness among young people about the dangers of online gambling. The message conveyed is preventive in nature, serving as a reminder that online gambling is not merely a financial issue but also impacts an individual's mental well-being, social life, and future. This work is intended to serve as an effective campaign tool to reduce teenagers' interest in online gambling activities and to reinforce moral values and social responsibility through a creative visual approach.

5. Conclusion

A 2D animated short film addressing the dangers of online gambling successfully conveys an educational message to young people regarding its negative impacts. Through engaging visuals, expressive characters, and a relatable storyline, the film raises audience awareness and encourages them to avoid online gambling. This work demonstrates that 2D animation can serve as an effective medium for creatively conveying moral and social messages.

The film is also expected to serve as a reference for future researchers utilizing animation to help curb the prevalence of online gambling an issue that remains widespread and has claimed many victims in Indonesia. Recommendations are also offered to parties such as parents, urging them to pay closer attention to and supervise their children's internet usage by fostering open communication, providing early education on the dangers of online gambling, and strengthening both religious values and family bonds.

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