Digital Comic Strip as an Information Media on the Impact of Sleep Call

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Abstract. Sleep call is a phone or video call activity between two people, usually a couple, that takes place when they are about to sleep. It is not uncommon for sleep calls to be carried out from night until both of them wake up the next morning. This phenomenon, although it has a positive impact on maintaining emotional closeness in the couple's relationship, can also cause various negative impacts such as disturbed sleep patterns, fatigue, and decreased productivity. This design aims to create an effective information media in conveying messages about the impact of sleep calls through comic strip media. Comic strips were chosen as a medium because of their ability to convey messages visually and narratively that are easy to understand and attractive to the target audience, the majority of whom are teenagers to young adults. An informative comic strip can increase audience awareness about the impact of sleep calls and encourage audiences to reconsider habits for good health.

Keywords: Comic strips, Relationships, Sleep, Sleep call, Telephone.

1. Introduction

A telephone is an electronic device that is usually used as an intermediary medium of communication that allows you to make and receive calls so that you can exchange information. Currently, telephones have many types in accordance with the times, namely conventional telephones, cell phones, cell phones to smartphones or smartphones. Smartphones are still the main choice by urban communities because they are easy to use, efficient and considering the tariff is relatively cheap if calculated in the long run. If someone makes a call, of course there is a purpose and goal. The call can be for the purpose of conveying information, asking a question or even just chatting. Talking on the phone has become a common activity among friends, family and couples. One of the communication phenomena that is happening among young couples today is sleep calling [1, 2].

Sleep calling is the habit of making voice or video calls at night which is usually done by couples until both fall asleep. Ussually the perpetrator who makes a sleep call will leave the phone call on all night until waking up the next morning. Sleep calls have a benefit. A professor

at Stanford University's Department of Communication, Jeff Hancock, revealed that sleep calls, especially in the form of video calls, can be a way to show one's commitment [3]. A communication consultant and speaker, calling or face-to-face communication is better than sending texts because there are nonverbal cues that are lost in text messages. According to Bustle, talking on the phone can strengthen a connection with someone and build a relationship. Hearing your partner's reactions, voice intonation changes, and tone of voice will help you understand them emotionally and can improve your communication skills with that person. In the end, the phone call becomes more special. Taking the time to talk to your significant other shows care and commitment to the relationship. There is an appeal in talking on the phone and staying up late into the morning talking to your partner can create the ultimate relationship moment known as a sleep call.

This habit of calling until the next morning often makes the user sleep with the cell phone near the ear or face. This can certainly have a negative impact on the quality of sleep. Even the radiation emitted by the phone for hours will affect health. The user of the sleep call stares at the cell phone screen for too long, causing damage to the retina area of the eye, especially when the sleep call activity is carried out when the user is about to sleep and is often carried out in a dark room. To make phone calls using the internet requires a smartphone, internet data, and an application. One application that can make voice and video phone calls is WhatsApp. Given that sleep call activities are carried out in a short duration, at least spending around 2 to 4 hours depending on the agreement of the subjects who make sleep calls, it will have an impact on the subject's health. In addition, the amount of internet data consumption due to sleep call activities becomes wasteful. From these problems that can be used as a solution is to design a digital comic strip about information about the impact of sleep calls. Comic strip is a series of illustrated stories visualized through several pages, the form tends to be short and not in the form of a book. Comic strips were chosen because they have advantages such as attractive visuals with narratives that are short, clear, and easy to understand. Comic strips are produced and published digitally because the intended audience is teenagers to early adults who like to use smartphones and social media.

2. Literature Review

A phone call using the WhatsApp application will incur internet data of 720 KB per minute for voice calls and 15 MB per minute for video calls, the longer the call, the greater the amount of data consumed. Based on these estimates, sleep call activities that use internet data will consume more internet data, considering that sleep calls are carried out for hours from night to morning for about 4-6 hours or even longer. This study is a response to the unrest that occurs due to the lifestyle of teenage dating relationships, besides that this study and design solution is in line with the previous proceeding entitled Illustated Book as Information Media For Authoritarian Parenting. In addition, the proceedings of Information Design for the Development of Aceh's Door Batik Pattern on Font Medium, and Culinary Books as Information Media Gorontalo Specialty Food Sagela Sauce.

3. Method

The method used in this design is a qualitative approach used as a technique for data collection. Theories and references as well as information related to sleep calls were obtained with several references derived from literature studies, field observations, questionnaires, interviews, and general existing information which was then reorganized in detail. This design is aimed at teenagers to early adults aged between 16 years and 27 years, with a coverage area

of big cities, small cities, and crowded settlements in Indonesia. The media used in the results of this design is information media through digital comic strips to meet the needs of information that is clear and easily understood by the target audience, where the intended target is a user of the TikTok social media platform, Instagram and Facebook.

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4. Results and Discussion
4.1. Target Audience

The target audience or target audience is one of the determining factors in media design, so that it can be adjusted appropriately to influence media creation. In this design, the target audience is determined based on demographics, geographics, psychographics, consumer travel, and consumer insights [4]. The target audience can be determined by three types of groups, namely demographic, geographic, and psychological as follows:

Demographic segmentation can divide the market into groups based on age, size, family, family life cycle, gender, income, occupation, education, religion, race, generation, nationality, and social class [5]. This coverage can be related to the needs and desires of the audience so that appropriate design strategies and concepts can be found. So that the target audience for sleep call design can be identified as follows:

(i)   Age: 16-27 years old
(ii)   Generation: Millennial/Generation Y to Generation Z.
(iii)   Gender: Male and female
(iv)   Social class: Middle and upper middle class.
(v)   Income: Rp. 0 - Rp. 5,000,000/month.
(vi)   Occupation: Student, university student, private employee.
(vii)   Education: High school, D3 or S1.

Geographic segmentation is the process of dividing markets and audiences into smaller groups based on physical location or geographic region. Geographic segmentation can include division by country, region, city, or even more specific geographic characteristics such as climate or topography [6]. The following is the target audience for comic strip design based on geography:

(i)   Aimed at all people in small towns and big cities in Indonesia.
(ii)   Aimed at areas in crowded and densely populated settlements.

Psychological segmentation is a way to understand consumers better. Psychological segmentation lies in its ability to identify and understand consumer motivations, values, lifestyles, and preferences [7].

- At 16 to 19 years of age, psychological development is more controlled than at earlier ages. This makes adolescents at this age less likely to take risky actions and more able to understand the cause and effect of a situation. Adolescents at this age begin to establish romantic relationships with the opposite sex, begin to think about the future, emotions tend to become more controlled and stable, independence is increasingly visible and even begin to not need parental assistance in all matters, and are able to make their own decisions with a lot of consideration.

- At the age of 20 to 27 years old, they already have higher productivity, have a desire to achieve achievements that want to be achieved whether it is work, family, or romantic relationships. At this age, a person has a strong ambition by wanting to prove their abilities, be it for themselves or for others. In addition, there are demands for audiences that can create their own mental pressure.

4.2. Design Strategy

In supporting the design objectives, a strategy is needed that includes the objectives and communication approach. The design strategy is a way to apply the results of thinking to make something better to achieve the goal. Starting from making storylines, storyboards, choosing typography, colors, thinking about an attractive illustration style, and determining the layout that will be used in the visual concept of digital comic strips. Here are the objectives and communication approach. The material to be delivered is about the impact of sleep calls, both good and bad, to help the target audience understand the impact that will be received if sleep calls are made every day. The language style used is everyday language that is easy to understand and familiar to the audience. The use of language that is too formal or stiff will be avoided by making dialog that feels natural. The storyline of the comic strip tells the story of a couple, Manda and Rio, who often do sleep calls, both feel comfortable with the activity but over time sleep calls have a negative impact such as decreased productivity and fatigue in the morning.

4.3. Design Format

The format of this design media design is JPG (JPEG) or Joint Photographic Expert Group, the selection of JPG is because JPG uses lossy compression which allows image files to be smaller without sacrificing visual quality, so that images remain sharp and detailed without reducing quality (Azqiya 2019). This is especially important for comic strips that rely on vivid colors. The following is a detailed specification of the comic strip:

(i)   Page Dimensions: 3000px x 3000px (1:1)
(ii)   Resolution: 300dpi (dots per inch)
(iii) File Format: JPG (JPEG)
(iv)   Number of Panels: 18
(v)   Colors: Soft pastel color palette
(vi)   Reading Duration: 1-2 minutes

4.4. Layout

The panels used in comic strips follow the pattern of comic strip panels in general, with the direction of reading from left to right following a Z pattern or a design that arranges the panels

in a zigzag order. The advantage of this layout is that it directs the storyline with a natural and easy-to-follow visual flow. Readers are directed from left to right, up to down, and back up again. Since the comic strip will be distributed on social media platforms TikTok, Instagram and Facebook, it allows the panels to be uploaded in the form of photo slides by sliding one panel at a time from the beginning to the end of the story (See **Figure 1**).
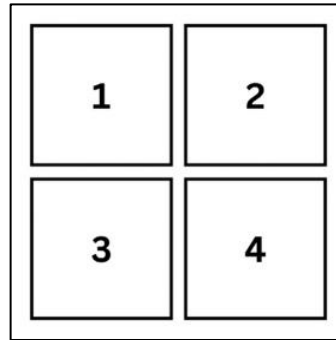

Figure 1. Layout.

4.5. Typography

Typography is the art of selecting available letters, combining them with different letters, and marking the script and subsequent processes. Typography involves the use of letters, numbers, and punctuation as a medium to convey a message. It deals with various disciplines related to the use of letters. Letters have an important role in designing comics and other media because they can clarify the information to be conveyed, "Readability is the level of ease of a text to read. Text that is "readable" means easy to read as a whole. This level of readability is influenced by the combination of font type and spacing between letters." [8]. Typography in comic strip design plays an important role in conveying the message, atmosphere, and character of the story. The following are some of the typefaces that will be used in the comic strip:Terserah is a script typeface designed by Syafrizal or Khurasan. Typeface script is a type of font that mimics handwriting and usually has an artistic touch. Terserah has good readability, suitable for the title of a cartoon-style comic and this typeface is 100% free to use. Typeface Terserah is the main typography in the comic strip and is used as a typeface for narration and text balloons (See Figure 2).

Figure 2. Typeface Terserah
(Source: https://www.fontriver.com/i/fonts/terserah/terserah_specimen.jpg (2024))

Montserrat is a sans serif typeface designed by Argentinian graphic designer Julieta Ulanovsky and released in 2011. A sans serif typeface is a font that is not decorative and tends to be clean and simple. The simplicity of the Montserrat typeface is suitable for body text that supports headlines, such as poster content, content, and long paragraphs. Montserrat is available on Google Fonts and is licensed 100% free to use (see Figure 3).

Figure 3. Typeface Montserrat

(Source: https://i.pinimg.com/originals/75/6b/37/756b370f0bd142e618092e16bc59c733.png (2024)).

4.6. Colors

Colors have emotional and psychological influences, such as red can evoke feelings of passion or urgency, while blue is often calming. The use of different colors can make visual elements stand out and can become a trademark of a brand. Colors can also complement each other to create a pleasing and balanced look.

Therefore, color is an important element in visual concepts. In the comic strip to be designed, the author uses pastel green colors ranging from dark to light. Pastel green creates a calm and peaceful atmosphere, similar to the effect of natural greens such as leaves and trees. Green is generally considered a balanced and harmonious color. It can help create a sense of stability and emotional balance (see Figure 4).
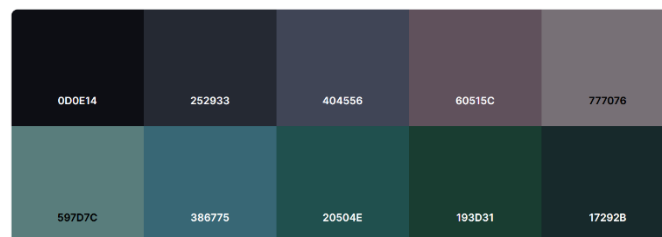

Figure 4. Color Pallet 1

(Source: https://coolors.co/palette/0d0e14-252933-404556-60515c-777076-597d7c-386775-20504e-193d31-17292b)
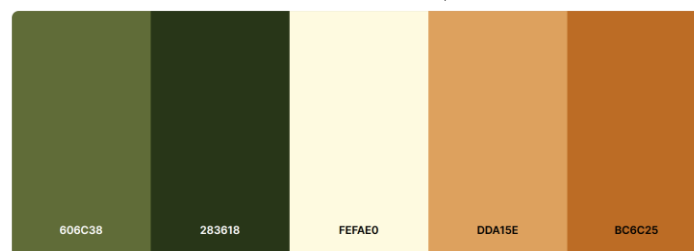

Figure 5. Color Pallet 2

(Source: https://coolors.co/palette/0d0e14-252933-404556-60515c-777076-597d7c-386775-20504e-193d31-17292b)

4.7. Audio

Audio is a term that refers to anything related to sound or voice. In the context of technology, audio usually refers to sound signals that can be recorded, played, or processed. Audio can come from various sources such as music, conversation, sound effects, and so on. In designing digital comic strips, audio music is needed to add to the atmosphere or atmosphere when reading the comic. On the TikTok and Instagram platforms there is an option to add audio to an upload.

The choice of audio to be used certainly affects what the reader will feel. The audio that will be used is a song from Billie Eilish entitled Birds of A Feather, in the song tells about the feeling of falling in love with someone so that they always feel like they want to stay together forever like a bird. With a soothing and melodious song tone and a deep meaning that matches the comic strip theme, this Billie Eilish song is used as a backsound on comic strip uploads on the TikTok and Instagram platforms.

4.8. Character Study

Characters are basically visuals that have a shape to display identity and represent identity for a person or in a story [3].Manda's character is inspired by Tohru Honda from the movie (anime) "Fruit Basket". Tohru is 16 years old at the beginning of the movie with long brown hair who often wears her school uniform and simple or casual clothes. Tohru Honda is a character who has kindness, compassion, and a positive outlook on life. Tohru has a cheerful face and feminine-energy. The character Manda is a 22-year-old college student in the comic strip story with long brown hair that is slightly messy. Set in a bedroom, Manda is often seen barefoot and wearing only red t-shirt or simple casual clothes (see **Figure 5**).

Figure 5. Manda Character

According to Manda's character reference Tohru Honda, Manda is known for her kindness, always ready to help others and showing affection and care. Manda is a character who has a positive outlook on life in facing various life challenges, such as work or personal problems. Rio is a supporting character who is Manda's partner or lover. Rio is 25 years old and works as a fashion designer. Rio has brown eyes with his hair dyed white or blonde, usually seen wearing a black hoodie and striped pants.

Figure 6. Rio Character

Rio is a sincere and loyal person, especially in his romantic relationship with his girlfriend, Manda. Rio believes that loyalty and sincerity are important in maintaining relationships with those closest to him. With his warm face, Rio can give a calm impression in dealing with various situations or problems.

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Comic strips are characterized by few panels and focus on delivering messages. By combining visuals and narrative text in comic strips, the target audience will find it easier to remember the message of the comic strip. Comic strips were also chosen because comic strips can be shared digitally, where the target audience is young people who are already familiar with gadgets or smartphones. Young people, namely Millennials and Gen-Z, are accustomed to using social media platforms to find entertainment or information. Therefore, this design will be shared or distributed digitally through TikTok, Instagram, and Facebook social media platforms. Pre-production is the initial stage in the process of creating a project, such as planning, preparation and organization needed before the main production begins. Pre-production in creating a komiks trip involves several important steps to ensure the story and images are ready before distribution. Here are some tools and materials that need to be prepared to create a comic strip: computer, internet, pen tablet, Clip Studio Paint Application, Adobe Photoshop Application.
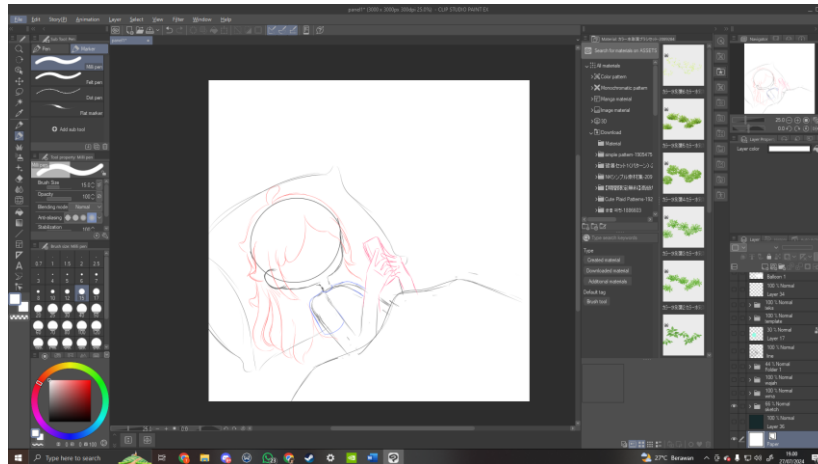
Figure 7. Early Sketch

After the characters and scenarios have been well thought out, the next step is to make initial sketches to determine the layout and storyline. Making initial sketches can use a drawing application, namely the Clip Studio Paint application. Then if the initial sketch has been made, the next step is to do line art or thicken the lines on the sketch. Thickening the lines using a Mili Pen brush marker and colored black. The goal is to separate each object and make the object more assertive. After doing the line art as desired, then enter the coloring stage of the sketch. Coloring also uses a Mili Pen brush marker and plays with opacity or color thickness to add lighting and shadows to the image.
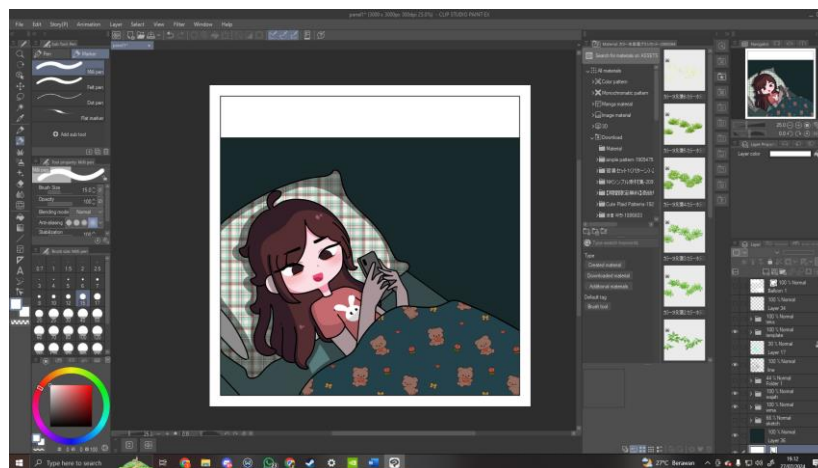

Figure 8. Addition of Lines and Coloring

The next step is to add a text balloon to put the dialog text as a conversation between characters in the comic strip. The type of text balloon used is rectangle balloon, because it has simple characteristics and according to what is desired. It is also important to pay attention to the layout of the text balloon so that it does not cover objects or interfere with the comic layout, in this process it also affects the narrative and dialog of the story can be conveyed properly to the reader. If you have obtained the desired visuals, the next step is to enter the last stage, namely the export process into JPG format with a resolution of 300 dpi (dots per inch). The export process using JPG aims to produce comic files in high quality, the images look clear and sharp then ready to be distributed or published digitally.
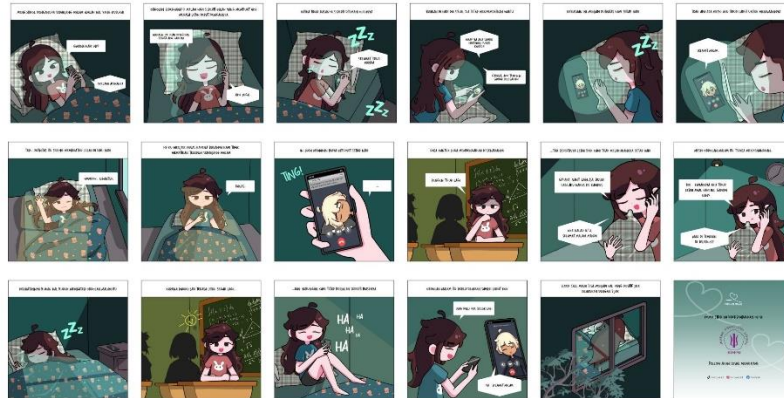
Figure 9. Digital Comic Strip

If you have got the desired visual, the next step is to enter the final stage, namely the export process into JPG format with a resolution of 300 dpi (dots per inch). The export process using JPG aims to produce comic files in small file sizes but high quality, the images look clear and sharp and are ready to be distributed or published digitally.

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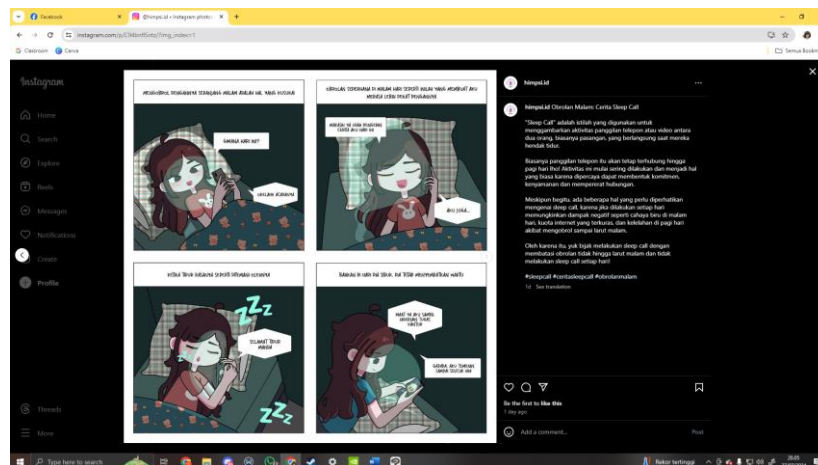

Figure 10. Publication of Comic Strips on Social Media

4. Conclusion

Based on the results of designing a digital comic strip about the impact of sleep calls, it can be concluded that this approach has the main objective of conveying messages for the public to be wiser in making sleep calls. Because even though sleep calls have a positive impact such as maintaining a relationship with a partner, it does not rule out the possibility that sleep calls can be a bad thing if done too often. The comic strip in this design discusses how couples who often make sleep calls from those who feel the positive impact to the negative impact, then

together find solutions to these problems. That way, this digital comic strip about the impact of sleep calling can be an effective medium in conveying messages about it because it has visuals and narratives that can attract attention and influence readers' emotions.

Acknowledgement

References

[1] Vincent, G. E., Kovac, K., Signal, L., Reynolds, A. C., Paterson, J., Sprajcer, M., & Ferguson, S. A. (2021). What factors influence the sleep of on-call workers?. *Behavioral Sleep Medicine*, *19*(2), 255-272.

[2] Soegoto, E. S., & Utomo, A. T. 2019. Marketing Strategy Through Social Media. In *IOP Conference Series: Materials Science and Engineering*, 662(3), p. 032040.

[3] Karan, S. M., Vincent, G. E., Ferguson, S. A., & Jay, S. M. (2019). The impact of on-call work for partners' sleep, relationship quality and daytime functioning. *Clocks & Sleep*, *1*(1), 185-192.

[4] Šćepanović, S., Mishkovski, I., Hui, P., Nurminen, J. K., & Ylä-Jääski, A. (2015). Mobile phone call data as a regional socio-economic proxy indicator. *PloS one*, *10*(4), e0124160.

[5] Madzík, P., Čarnogurský, K., Hrnčiar, M., & Zimon, D. (2021). Comparison of demographic, geographic, psychographic and behavioural approach to customer segmentation. *International Journal of Services and Operations Management*, *40*(3), 346-371.

[6] Torresan, S., Critto, A., Dalla Valle, M., Harvey, N., & Marcomini, A. (2008). Assessing coastal vulnerability to climate change: comparing segmentation at global and regional scales. *Sustainability Science*, *3*, 45-65.

[7] Liu, H., Huang, Y., Wang, Z., Liu, K., Hu, X., & Wang, W. (2019). Personality or value: A comparative study of psychographic segmentation based on an online review enhanced recommender system. *Applied Sciences*, *9*(10), 1992.

[8] Grabska, E., Grabska-Gradzińska, I., & Frodyma, T. (2022). The role of typography in visual design. *Craft, Technology and Design*, 118-130.