Designing a Campaign for Water Conservation Through Social Media

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ABSTRACT

Water is a crucial substance for human life, both for bodily needs and daily activities. Groundwater is the most commonly consumed water source by the public, especially in the capital city of Jakarta. Besides being easily accessible, groundwater is also very affordable because it is inexpensive and does not require monthly payments like PDAM water. Unregulated groundwater drilling by the government can negatively impact groundwater quality. If this continues, the groundwater quality in Jakarta could deteriorate to the point of being unfit for consumption. As an information and education medium, a campaign through Instagram social media can be a solution, providing a fun and interactive means of conveying information effectively. The design process involves several stages, including data collection through questionnaires distributed to the target audience, literature studies, expert interviews, and beta testing. The result of the design is 12 main social media contents, along with several supporting media. Beta testing shows positive responses from the audience regarding understanding and interest in water conservation.

Keywords: Groundwater, Water Conservation, Campaign, Social Media

INTRODUCTION

Water is an irreplaceable substance for the sustainability of human life, playing a central role in maintaining balance and health in the body. Approximately three-quarters of the human body consists of water, indicating its essential role as a life-saving element. To maintain vitality and health, it is recommended that humans consume at least eight glasses of water daily (Wyadyana, Marwati, Purna 2020). However, human dependence on water extends beyond mere bodily needs. Water is also a crucial element in various sectors of human life, encompassing fields such as transportation, agriculture, industry, tourism, and other sectors.

For instance, transportation requires water as hydrogen fuel or for cooling engines. Agriculture relies on water for irrigation and crop maintenance. Meanwhile, the industry uses water as a vital component in production processes and to sustain

operational continuity (Wyadyana, Marwati, Purna 2020). Given the extensive use of water across various sectors, society has turned to an accessible and easily obtainable water source: groundwater. According to data from the Ministry of Public Works and Public Housing, the number of groundwater wells in Indonesia totals 8,823 points nationwide, with this number projected to increase over the next five years. Excessive use of groundwater can lead to negative environmental impacts, such as reduced water flow and declining groundwater quality (Mujihah, 2022).

Based on the data presented above, it can be concluded that groundwater usage will continue to rise in line with the increasing population of Jakarta. Therefore, solutions to find alternatives to groundwater issues are necessary. Actions from both the community and the government are crucial in preserving groundwater quality. Hence, it is essential for the public and government to understand and implement water conservation practices to maintain water quality and ensure the availability of surface water (Azzahro et al., 2021).

Water conservation is a concept aimed at preserving water in terms of both quality and quantity. It is important for the broader community to understand water conservation to appreciate its benefits and urgency for the environment and the sustainability of clean water resources. Therefore, an easily accessible and interactive medium is required to effectively and efficiently convey the campaign. Social media is chosen as it is easily accessible and comprehensible to all groups, ensuring that the campaign attracts public attention and is easily disseminated. According to data from We Are Social in 2023, social media users in Indonesia reached 167 million active users. With such a large number of active social media users, campaigns delivered through social media are likely to gain significant traffic, thus reaching a wider audience.

To raise public awareness about the importance of water conservation for maintaining clean water, campaigns and explanations about water conservation need to be conducted interactively through engaging content designs on social media. Attractive content designs and the use of varied content pillars can draw a large audience to view the content. The more audience members who view or interact with the content, the more likely it is that the content will be recommended to a broader social media user base (Afifah et al., 2022).

LITERATURE REVIEW
Design
In the Indonesian Dictionary (KBBI), design is described as the process, method, and act of designing. Design can also be interpreted as a plan arranged according to specific stages to achieve a set goal. In the book "Menjadi Seorang Desainer Grafis (Wahana K., 2017, pp. 211-213), it is explained that design involves how we convey a message, how to communicate something attractively, and how to deliver information correctly. Design is about communicating concepts, ideas, and functions to a specific audience.

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According to book "Elemen-Elemen Mesin Dalam Perancangan Mekanis : Peramcangan Elemen Mesin Terpadu" by (Leurs Robert, 2017, page 49), design is often defined as creativity, product, graphics, and aesthetics. However, design can encompass a broader scope than traditionally defined. It can be the initial step toward innovation, typically followed by design strategy and the concept of design for innovation. Furthermore, Leurs and Robert also state that design is not limited to a professional context; it is an activity that humans engage in daily. For example, someone rearranging their home furniture to enhance both aesthetics and functionality is engaging in design.

Based on the three definitions above, it can be concluded that design is an activity undertaken with a plan or sequence that has a concept aimed at solving a problem or fulfilling a need.

Campaign

According to the Indonesian Dictionary (KBBI), a campaign is a promotional movement aimed at increasing public awareness or sales. Kotler and Andreasen (2019) define a campaign as a series of systematic and planned efforts with the goal of influencing the behavior, beliefs, and attitudes of a group or individual. A campaign is also described as the process of conveying ideas or concepts as an attempt to garner sympathy towards an idea, encompassing societal movements or actions taken simultaneously to influence the target audience.

According to book "Manajemen Kampanye" (Venus Antar, 2018, page 29) states that campaign activities are organized efforts involving a communication process intended to influence, persuade, motivate, and create an impact on society, with clear objectives within a specified timeframe.

Based on the definitions provided, it can be concluded that a campaign is an activity carried out with the aim of raising awareness and knowledge among individuals, groups, and society about a particular issue or product, with the ultimate goal of increasing public awareness or participation in the campaign movement.

Water Conservation

According to the Indonesian Dictionary (KBBI), conservation is the effort to maintain or protect a natural resource to prevent it from being damaged or destroyed by means of preservation or conservation. The term "conservation" itself is derived from the English word "conserve," which means to protect. Therefore, in the context of water conservation, it means protecting water in terms of both quality and quantity.

Water conservation involves efforts to manage water resources to ensure the availability of clean water for the sustainability of the environment and human life. The protection of water resources can be achieved through proper water resource management, water quality management, and using alternatives to protect water resources, especially groundwater (Reyhan Mumtaz C, 2021).

Groundwater

According to book "Tata Ruang Air Tanah" (Kodoatie Robert, 2021, page 50) groundwater is the water found within the surface layers of the earth. The area of land that contains groundwater is called a groundwater basin, commonly abbreviated as groundwater basin. Groundwater can also be defined as the quantity of water beneath the earth's surface that can be collected through wells, tunnels, drainage systems, or pumping. Additionally, groundwater can be referred to as a flow that naturally reaches the earth's surface through springs or seepage.

Based definitions provided, it can be concluded that groundwater is water located within the surface layers of the earth, originating from the infiltration of rainwater into the soil or river water that also seeps into the ground naturally.

Social Media

Social media is widely used and very popular, with almost everyone using it. Besides being a medium for interaction, social media is now also widely used by companies as a marketing tool. According to Nabila et al. (2020), social media is an online medium that operates with the help of web-based technology, which has transformed communication from a one-way interaction to a two-way or interactive dialogue. Social media is a platform, service, and tool that allows individuals to connect, express themselves, and share with others with the help of the internet. According to Ardiansah and Maharani (2021), social media is a means or platform used to facilitate interaction among users and has the nature of two-way communication. Social media is also often used to build personal image or profile and can be utilized by companies as a marketing medium. The utilization of social media as a marketing medium can be done by uploading photos to social media accounts like Instagram, which can then be viewed by consumers who follow the account.

Based on the two definitions above, it can be concluded that social media is a social networking platform for everyone to connect digitally. Besides being a medium for interaction, social media can also function as a promotional tool, especially when introducing a business to the public, thereby accelerating the promotion of our business.

METHODOLOGY

Several methods were employed in designing this campaign to gather data. The methods used include literature study, in-depth interviews, questionnaires, strategy research using analysis approaches such as Strengths, Weaknesses, Opportunities, and Threats (SWOT), followed by development, and finally beta testing. The initial stage of the design process involved conducting a literature study on government data and journals regarding groundwater quality in Jakarta, water conservation, and social media as a campaign medium.

Secondly, questionnaires were distributed as supporting data for the social media campaign design. These questionnaires contained questions about the target

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audience's understanding of water conservation and the environmental impacts of water. The respondents of the questionnaire were people aged 25-35 years from the middle to upper economic class. The target audience consideration was based on discussions with one of the partners interviewed, who indicated that the appropriate target audience for environmental campaigns is the middle to upper economic class. This view was also shared by the advisor, who made a similar recommendation.

Additionally, interviews were conducted with Sabrina Farah, Chief Marketing Officer of PT. ReservoAir Konservasi Indonesia, and Ninuk Suryorini, Consumer Officer of PT. Aetra Air Bersih Jakarta. These interviews revealed several factors aiding the campaign design, including supporting data and facts about water issues in Jakarta.

Thirdly, the design continued with strategy research (using a SWOT analysis approach) of campaigns with similar themes. The SWOT analysis was conducted using three existing social media campaigns on Instagram: @airkami.id, @bantuairyuk, and @id.aliran. The Strengths analysis involved identifying the advantages and unique features of each campaign by examining their follower counts and supporting media. The Weaknesses analysis involved identifying the weaknesses of the three existing campaigns and the ongoing design. The Opportunities analysis involved identifying potential opportunities for each campaign, such as partnerships with other companies or upcoming projects. Finally, the Threats analysis involved identifying threats faced by each campaign by examining the sustainability of their campaigns.

After obtaining results from the SWOT analysis-based strategy research, the design continued with the development of the campaign media. To ensure the campaign's sustainability, the author collaborated with a startup company focused on water conservation, Reservoair Konservasi Indonesia. Based on interviews with Sabrina Farah, one of Reservoair's employees, the company is actively participating in various environmental campaign events and startup funding events. The supporting media designed for this campaign will be handed over to Reservoair so that the media can be used at various startup or environmental events, ensuring the campaign's continuity.

To enhance the campaign's visibility to a larger audience, the campaign is designed with engaging and interactive language on its main platform, Instagram. The content includes puzzles inviting the audience to participate in answering questions and organizing giveaways.

Social media can be highly informative and engaging for the public due to the rapid and interactive exchange of information (Cahyono, 2016). By creating interactive content, the campaign can achieve significant engagement. The Instagram content consists of 12 interactive pieces, including 3 reels and 9 carrousel posts, under the Instagram account @airtanahkita.

Following the design, prototype testing was conducted by gradually posting the 12 content pieces on Instagram. This allowed the author to receive audience feedback on the Instagram content design. The feedback provided by the audience will be used to develop future content, ensuring the campaign's sustainability.

RESULT & DISCUSSION

Water conservation is an effort or method of protecting water by saving its use or protecting water sources. The aim of water conservation is to support the sustainability of water resources (David, Ryan, Herry, 2015). Water conservation is also crucial to understand because protecting water involves not only saving its use but also ensuring water returns to the natural cycle (hydrological cycle). Rainwater should be able to seep back into the ground, ensuring groundwater reserves remain available for nature (Suryani, 2021).

According to data from BAPPENAS in 2019, 45% of groundwater in Jakarta is critically polluted and unfit for consumption. Additionally, more than 20% of rivers are already polluted," said Deputy for Maritime Affairs and Natural Resources at Bappenas, Vivi Yulaswati, during the 2023 Geology Agency Colloquium themed "Socialization of Groundwater Regulations and Launching the Wise Use of Groundwater Movement." This situation is due to the massive use of groundwater in Jakarta. According to the Central Statistics Agency of Indonesia, the amount of water extracted from bore wells in Jakarta is 9,143,484 cubic meters per year as of 2019. This number continues to increase with the growing water demand in Jakarta. If this continues, groundwater supplies will dwindle, leading to river, stream, and seawater intrusion, contaminating the groundwater. Consequently, the water consumed by the public will be severely polluted (Kodoatie, 2021).

According to data from the Financial Services Authority, people aged 25-35 are actively seeking property or building houses. Therefore, the target age group of 25-35 years is very suitable for this campaign. As people in this age group plan to own homes, they are likely undecided about their water sources. Hence, the 25-35 age group is the ideal target for the water conservation campaign. Additionally, the campaign targets the middle to upper economic class. Research by Firdaus (2021) on the socio-economic impact on public knowledge of environmental issues shows that the middle to upper economic class is more receptive and willing to participate in environmental campaigns and is more aware of environmental issues.

Social media is a platform for disseminating information and campaigns. The social media-based campaign is designed to promote water issues in a fun and interactive way. According to data from We Are Social in 2023, social media users in Indonesia reached 163 million. With such a large audience, the campaign can be widely shared across various societal layers beyond the target audience. Instagram will be the primary medium for this campaign due to its interactive features that support an engaging and interactive campaign theme. Additionally, being part of the META ecosystem makes it easier to promote the Instagram account through META ads. From the distributed questionnaire, 96.2% of respondents did not understand or

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had never heard of water conservation. The questionnaire also included questions about groundwater use and the environmental impacts of excessive groundwater use. At the end of the questionnaire, 90.4% of respondents agreed on the need for a water conservation campaign and expressed willingness to participate. The questionnaire also gathered opinions on campaign design, media selection, and most respondents preferred Instagram as the primary medium. Furthermore, the questionnaire included questions about design concepts and mascot styles for the campaign. Most respondents favored a design style using two main colors and an alternating rhythm when published on Instagram. For the mascot, respondents preferred a modern design with a slight sci-fi theme.

Interviews with the Marketing Officer from Reservoair highlighted the importance of implementing water conservation across all societal levels. Continuous extraction of clean groundwater leads to pollution from contaminated river water intruding into the groundwater system in Jakarta. Furthermore, the hydrological cycle is disrupted due to the lack of water absorption areas in buildings, causing water to overflow to lower areas and leading to floods.

An interview with the Consumer Officer from Aetra revealed that uncontrolled groundwater use in Jakarta could lead to groundwater depletion. Aetra is committed to educating the public about the dangers of groundwater use, which will soon be contaminated. However, fraudulent data on groundwater use in Jakarta complicates Aetra and the government's efforts to monitor groundwater usage.

Segmentation

The target segment for this campaign comprises individuals aged 25-35, both male and female, who are planning to own or build homes. For the specific description they are interested in participating in or are attracted to environmental campaigns for water conservation on social media. This segmentation of people aims to making these people will use the concept or the method of conserving water.

General Concept

Based on the social media research conducted, it is essential to deliver interactive and enjoyable social media content. This concept ensures the content aligns with the initial research design. The content design includes 12 main Instagram posts supported by Instagram stories. The 12 posts consist of 9 informative carousel posts and 3 engaging reels.

Design Concept

The design concept was derived from the design questionnaire analysis. The main media design features 12 carousel posts, with alternating colors for each post cover, based on the majority vote from the audience respondents. As a representative of a campaign addressing water issues, the color and pattern choices are inspired by water, predominantly featuring blue hues. The content layout design is structured to ensure clear readability for the audience, with each content edge spaced 60 pixels apart. Mascots are prominently featured in nearly every piece of content

as the main identity, complemented by additional graphic assets like illustrations and images. This approach aims to enhance engagement and visual appeal while maintaining clarity in conveying the campaign's message.

Image 1 Layout Design. (Source: Personal Design)

The typography used in the campaign media includes Titan One font for headlines and subheadlines, chosen for its rounded contours that align with the design style. For the content body, Poppins font is utilized for its excellent readability. This combination ensures both visual appeal and clarity in conveying the campaign's message effectively.

Image 2 Titan One Font. (Source: Google Font)

Image 3 Poppins. (Source: Google Font)

The tagline logo for the campaign uses Titan One font, emphasizing clear strokes to enhance visibility and ensure that hashtags and calls related to "Air Tanah Kita" are memorable and impactful for the audience.

Image 4 Tagline Logo. (Source: Personal Design)

The content plan is designed with a focus on water issues and the concept of water conservation, comprising 12 pieces of content. It also includes giveaways for participants who successfully engage with questions related to water issues. This approach aims to educate and engage the audience effectively while promoting awareness and participation in water conservation efforts.

Tabel 1 Content Plan. (Source: Personal Content Planning)

Content	Content Type	Explanation
Apa itu Konservasi air?	Regular Post	Explanation about water Conservation
Apa itu Zero Runoff?	Reels	Explanation about zero runoff concept
Yuk kita bahas tentang siklus air	Regular Post	Explanation about Water cycle
Rumah dengan konsep Eco House yang menerapkan Konservasi Air	Regular Post	Highlighting about the Eco House in Indonesia that use the eco-friendly water system
Ada genangan? Artinya perlu ada resapan	Regular Post	Explanation about how to fix puddle with absorption well
Quiz air tanah! (Teka Teki Silang)	Regular Post	Crossword Puzzles
Air Tanah Ternyata Bahaya?	Regular Post	Explanation about the hazards of groundwater
Dampak penggunaan air tanah secara berlebih	Regular Post	Explanation about the cause of groundwater exploitation
Panen air saat musim hujan!	Regular Post	Explanation about rainwater harvesting
Let's talk about world water forum	Reels	Explanation about the 10th world water forum that held in bali

Konservasi air diberbagai negara	Reels	Explanation about the innovation of water conservation in other country
Kenapa Jakarta sering banjir?	Regular Post	Explanation about why Jakarta is always flooding

**Image 5 Final Visualization. (Source: Personal Design)**

CONCLUSION

The campaign "Designing a Campaign for Water Conservation Through Social Media" has demonstrated positive influence in enhancing audience understanding of water issues and the importance of water conservation through prototype testing. It has effectively engaged audiences, fostering interaction and receiving substantial engagement.

Moving forward, there is potential to expand and develop this campaign further, given its successful engagement and potential utility for Reservoir in advocating water conservation issues and solutions. The statistic from audience shows that most of the audience understand about water conservation and water issues. Most of the audience showing the positive feedback towards the social media campaign.

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Seberapa paham kamu tentang isu air dan konservasi air dari materi yang telah disampaikan instagram @airtanahkita
8 responses
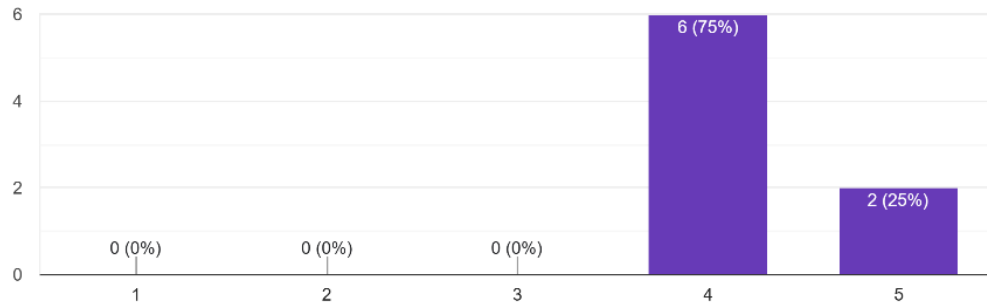
Desain yang dirancang oleh @airtanahkita sudah baik, dari segi keterbacaan dan estetika
8 responses
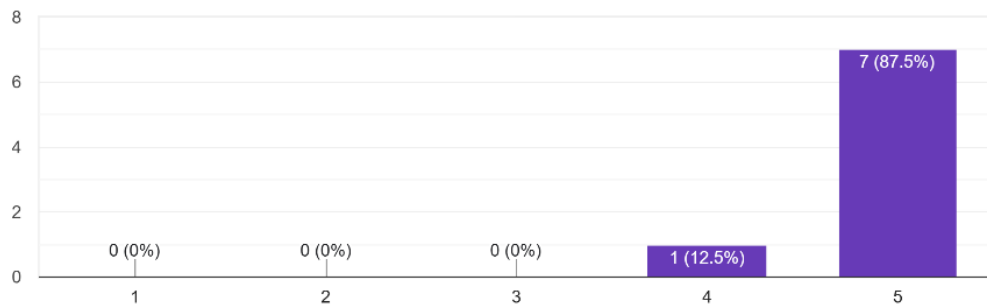
Ketertarikan dalam mengikuti / memperdalam tentang konservasi air dan isu air setelah melihat materi yang disampaikan instagram @airtanahkita
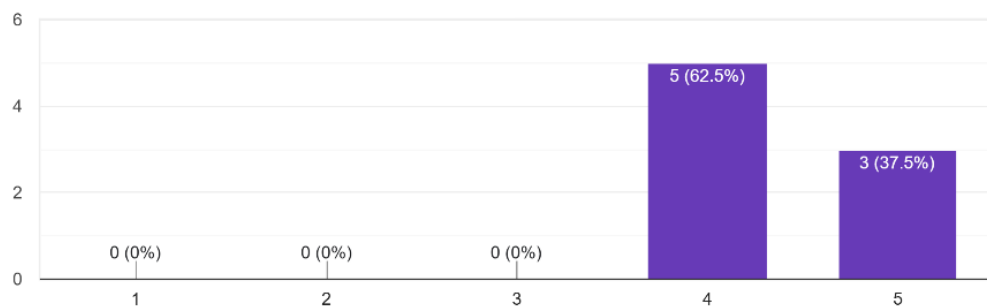8 responses

Image 6 Feedback from Audience. (Source: Google Form)

Image 7 Feedback from Audience. (Source: Google Form)

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