

Semiotic Analysis of a Public Service Advertising “I compost food waste”

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Abstract

Most of the current researches on analyzing public service advertisings (PSA) about food waste into compost is concentrated on the interconnection between environmental, economic, and social aspects. This study has considered the semiotic analysis of the selected PSA through Barthes' The Five Codes theory. Using the semiotic framework, the paper explains the messages of the PSA "I Compost Food Waste" and describes how this advertising provides insight into design innovation. The findings have shown that the PSA combined with the semiotics is capable of raising people's awareness about food waste into compost.

Keywords: Public Service Advertising, Food Waste, Compost, Semiotic.

Abstrak

Sebagian besar penelitian saat ini menganalisis iklan layanan masyarakat (ILM) tentang limbah makanan menjadi kompos terkonsentrasi pada interkoneksi antara aspek lingkungan, ekonomi dan sosial. Kajian ini telah mempertimbangkan analisis semiotik PSA terpilih melalui teori *The Five Codes* Barthes. Dengan menggunakan kerangka semiotik, makalah ini menjelaskan pesan dari limbah makanan kompos PSA I dan menjelaskan cara iklan ini memberikan wawasan tentang inovasi desain. Temuan menunjukkan bahwa PSA yang dipadukan dengan semiotika mampu meningkatkan kesadaran masyarakat tentang limbah makanan menjadi kompos.

Kata Kunci: Iklan Layanan Masyarakat, Limbah Makanan Menjadi Kompos, Semiotika.

Introduction

Humans have close relationships with food because it is a primary survival need. But not many people have a concern about how food gets to the dining table. The society should rethink the amount of energy and natural resources involved in food production, consumption, and disposal. Food production has increased greatly synchronously with the world population growth. However, this significant change is labeled as a challenge for the environment which dramatically contributes to greenhouse gas emission through deforestation since more and more forestlands become agricultural (Lambin & Meyfroidt, 2011).

Food waste likewise has a negative impact on the environment. Degradation of food waste in landfills leads to greenhouse gas emissions, i.e. methane and carbon dioxide. Moreover, wasted food relates to depletion of natural resources involved in food production and distribution processes like water, soil, fossil fuels (Morone, 2016). The problem of waste disposal problem and related resources' depletion might be solved

together by implementing a green chemical technology (Luque & Clark, 2013).

Several studies have been investigating various reasons of food wasting in public catering services: the analysis of the relation between meal portion size and plate waste generation in the hospital canteen (Pinto, et al., 2018), the effect of food waste campaigns on behaviour and perception of the customers in buffet-style restaurants (Hsiangting & Tun-Min, 2018). Although both studies focus on tackling the food waste challenge, none of them directs to the solution of recycling into compost.

A number of movements have recently emerged with the aim to solve the food waste problem and raise awareness among the society. One of them is *Compostal* by Kyle Calian and Amer Jandali (2015). The project aims to divert food waste from landfills by picking compost up from New York households and dropping it off to the community garden or the farmers' markets. Another example is *the Community Grounds Project* founded by Michael Raineri (2017) with an aim to create a sustainable community

economy by converting coffee ground waste into garden fertilizer. The *BreatheLife* campaign (2018) is a global campaign led by the World Health Organization (WHO), the United Nations Environment, and the Climate & Water Coalition (CCAC) and dedicated to protecting the earth's health from air pollution and to promoting better waste management including composting particularly. Many other initiatives focus mainly on food waste reduction, e.g. *Save The Food* by Natural Resources Defense Council (2008) and *Feeding America* by John Arnold van Hengel (2016).

The purpose of this research is to investigate the use of semiotic signs in the public service advertisement *I compost food waste* which is a part of the *BreatheLife* campaign. Additionally, the research aims to answer the following questions: whether the PSA is successful or needs to be improved; how the visual design of the PSA works in terms of the formation of meaning. This study analyses a reflection of social and cultural realities in the PSA *I compost food waste* focusing on its visual, motion interaction, and investigating the ways of delivering the advertising concepts to the audience. The following questions guided the study are:

1. What semiotic elements present in the Ad?
2. What do they mean?
3. What is their connection to food waste composting?

The study contains textual and contextual analysis and applies the theory of *The Five Codes* by Roland Barthes. The results are then discussed.

Literature Review

Food Waste Into Compost

There are two terms related to the issue: food waste and food loss. The definition of them varies from country to country, in this research United Nation definition is applied. Food loss is food that didn't reach the consumer or retailer because it was lost or spoiled. Food waste is food that is still eatable and drinkable but unwanted due to different reasons.

This study focuses on food waste and analyses the public service advertising about food waste into compost. As mentioned previously, food waste is a global challenge that impacts the environment, economy, and society directly and indirectly. Most of the food waste is thrown

away in landfills where it decomposes and emits methane which pollutes the air, groundwater, and soil and negatively affects humans' health (Rahmanian, 2015).

According to (Pearson & Perera, 2018) the objective of the food waste campaign should not be limited by informing the society about the issue rather educating them about the negative consequences. Consumers can and should contribute into to the problem-solving by reducing and/or recycling food waste. The proposal to governments made by (Papargyropoulou, et al., 2014) suggests the problemsolving strategy based on hierarchy of methods dealing with food waste:

1. Reduce food waste generation,
2. Distribution to people who face hunger,
3. Recycling to feed animal and into compost,
4. Energy recovery, and
5. Disposal to landfills equipped with gas utilisation system.

The first method is the most preferable and the last one is the least. However, it should be mentioned that in some countries, e.g. EU countries, recycling of food waste to feed animals is forbidden. So far there has been not much discussed why food waste campaigns don't direct to the solution of recycling into compost. None of the previous studies has been investigating a public service advertising about food waste into compost.

Public Service Advertising

Public Service Advertising (PSA), also known as Public Service Advertisement or Public Service Announcement, is associated with communication activity which aims to influence society in a specific way and in a specific time. PSAs are used for directing, strengthening and moving society toward into specific desirable actions, including voting, improving health and safety, or any kind of series of actions shaped with theme and idea into advertising messages.

History of public service advertising begun roughly around the start of the Second World War. In that time, public service advertising was applied in the form of print ads, ambient media, and radio calls to recruit soldiers. Later with developing new telecommunication technologies did PSAs appear on TV.

Previous studies of PSA have found out that the effectiveness of Public Service Advertising is comparable to the effectiveness of Commercial

Advertisement (Murry, et al., 1996). Another study states that the success of PSA directly depends on the novelty of the message (Lee & Davie, 1997).

The literature on public service advertising (Artero, et al., 2016) declares the importance of gender and age of target audience is relative, whereas a level of education is a priority to consider in the design process of successful PSA. The level of audience education affects its perception: the less educated people have a better opinion than people with better education (Artero, et al., 2016).

Another meaningful aspect is generating a certain mood to touch and persuade the audience (Wong & Householder 2008). Creating an emotional connection with the audience works more efficiently than mere observation of statistics, facts, and risks.

Results from earlier studies demonstrate a serious and consistent consideration of the audience demography and geography as an essential part of a PSA design process. There is a large number of published studies (e.g., Wong & Householder 2008; Murry, et al., 1996; Lee & Davie, 1997; Artero, et al., 2016) that ascertain the dependence of the level of advertising persuasiveness on visual and verbal effects. However, describing how a food waste PSA contributes to the problem-solving process is insufficient.

Semiotic

Semiotics is a study about signs. A sign is a unit that transfers information in various forms to communicate with an audience. Therefore, semiotics has a direct connection with advertising. The semiotic approach in advertisements helps to express an idea and transfer a message to an audience.

Semiotic is a transdisciplinary framework of understanding and transferring information by augmenting the design approach. Semiotics is widely used in film production, theater, architecture, visual design and many communications and transfer information area. Semiotics is based on knowledge of how to interpret the meaning from small to big things, to analysis conceptual design, to reveal the insight. Semiotics can be applied for design innovation.

The pioneers of semiotics are an American philosopher Charles Sanders Peirce (1839–1914) and Swiss linguist Ferdinand de Saussure (1857–1913). According to Saussure's semiotics theory, language is a system of signs. Each sign consists of a signifier (a messenger) and signified (a message or a meaning). The bond between signifier and signified is arbitrary: several signifiers can mean the same signified (Jensen & Jankowski, 1991).

Another worldwide recognized semiotician is a French literary theorist and philosopher Roland Barthes. Barthes's theory influenced by Saussure's structural linguistic introduced hierarchy of signs: first-level sign with denotative signified (literal or direct meaning) and second-level sign with connotative signifier (indirect meaning) or myth. According to Barthes signs are organized into the meaningful system through codes. In *S/Z* (1970) he named five codes: hermeneutic (narrative turning-points); proairetic (basic narrative actions); cultural (prior social knowledge); semic (medium-related codes) and symbolic (themes).

Semiotic analysis has been studied widely since the early 1960s. Numerous journals, books, schools, associations, societies, academics, research groups, and educational programs have appeared. In the 1960s two journals of semiotics were established, six in the 1970s, seven in the 1980s, twelve in the 1990s, and thirteen since 2000 (Kull & Maran 2013).

One of the key elements of semiotic analysis is narrative. The most remarkable research published in 1975 and titled *An Introduction to the Structural Analysis of Narrative* by Roland Barthes and Lionel Duisit (1975) proposed the three levels of the narrative structure including functions, actions, and narration (referred to Todorov). Additionally, a narrative is among the most important factors stimulating innovation in design (Price, et al., 2018). As for formalities, narrative assists in receiving permissions from authorities to implement innovation. The semiotic approach of visual code and visual literacy explores problems with interpretation, influence, memory, projection, references, and temporality being outside of any linguistic frames (Stein, 1998). The main challenge in the semiotic analysis concerned many researchers is to find cultural trends leading to innovation in design.









Methodology

The current research is qualitative research in Visual Communication Design. In order to interpret qualitative data, the author used a semiotic strategy based on Roland Barthes' semiotic theory The 5 codes. The semiotic analysis is conducted towards encoding public service advertising. The selection of PSA to be analyzed is done by the purposive sampling technique that ensures only relevant to the study samples are picked out. The chosen PSA is the PSA *I compost food waste* published on-line in 2018 on YouTube channel *BreatheLife*. The Ad is a part of a global campaign *Breathe Life* launched by World Health Organization (WHO), the United Nations Environment, and

the Climate and Water Coalition (CCAC).

Analysis and Discussion

The public service advertising *I compost food waste* was published in 2018 on the YouTube channel *BreatheLife*. The Ad is a vector-based textured 2D animation. It is 30 sec long. The PSA consists of several narrative episodes with intelligible visual and motion transition. The plot tells a story of a young Afro-American woman concerned about food waste. The lady doesn't like the foul smell coming from the trash bags full of organic waste. She gets an idea to recycle organic waste into compost and fertilize her garden with it. The detailed plot is given below shot by shot.

			
<p>1. The Ad begins with the scene of a young Afro - American woman putting the garbage outside of her house. The lady wears casual clothes and a bandana that fits the environment</p>	<p>2. She was horrified straight away by the foul smell coming from the trash bags</p>	<p>5. Here is the shot from the yard full of the rotting organic trash. The camera is moving forward exposing the yard filled with the stinky waste</p>	<p>6. The young Afro-American lady gets an idea depicted as the bright-yellow and white lamp. And her facial expression turned into happiness</p>
			
<p>3. She is sad because of the stench</p>	<p>4. Next, the young lady cannot stand the foul smell any longer and she is trying to get rid of it by waving her hands</p>	<p>7. Next second, the bright light of the lamp turns into the cloud as a symbol of the imagination of the young lady. The black plastic trash bags giving off the strong stretch appear in the cloud later on. The content of the bags isn't shown but labeled "organic"</p>	<p>8. Then the question mark symbol comes up representing the woman's reverie. The color of the symbol is red against the white cloud background</p>






	
<p>9. The garden crops appear in the cloud visualizing the solution that the young lady found. And she expresses happiness</p>	<p>10. Next frame zooms in the cloud and shows the lady throwing the composted organic trash into the crop bed. Both the bin and the bed are a blue color. The woman is happy</p>
	
<p>11. The plants are growing fast in the fertilized soil. The blue bed is full of the lush vegetation</p>	<p>12. The lady is excited. Visual text appears above her head <i>I compost food waste</i></p>
	
<p>13. Next, the background changes into blue one with visual text</p> <p style="text-align: center;"><i>#BreatheLife</i> <i>Find out how clean the air you breathe is</i> <i>BreatheLife2030.org</i></p> <p>These are a hashtag and a call to action providing the audience with more information available in social media and on the official website of the campaign. Later logos of WHO, UN, CCC appear</p>	

Table 1. Narrative of the public service advertising *I compost food waste*

The author analyses contextual information in the Ad and explores the narrative under the implementation of Barthes' theory *The 5 Codes*. The PSA was examined to detect its embodied hermeneutics, semantics, symbolic, proairetic and cultural codes.

Proairetic Codes

A proairetic code is also known as a narrative code; it's a code of action and following it reaction which audience focus on. The first chain of action-reaction is when the lady takes out the trash bags, feels the stench and decides to deal with a problem. The second narrative code is the thinking process depicted as the lamp, the question mark and the solution in the imaginary cloud of the woman. Next action-reaction chain is the implementation of the lady's idea: she composts food waste, enriches the soil of her garden and gets good harvest as a result. These three proairetic codes together bring the audience to the final point: food waste, composting, harvest.

Hermeneutics Codes

A hermeneutics code is about mystery and questioning *what is happening and why*. The title of the video *I compost wood waste* is the first hermeneutics code. The audience might ask: who does compost food waste? Why does someone compost food waste? Why should *I compost food waste*?

Then, after watching the Ad, another question appears: what is the message behind the chosen young woman's ethnicity. Why is the character of the young Afro-American woman used? Since the PSA is a part of the global campaign *BreatheLife*, it's important to present ethnic minority in the Ad to have a better impact. However, the main reason might derive from Nielsen African-American consumer report (2016), which states that black millennials in the US have higher social media engagement as well as a greater influence among their subscribers on social media. Thus, African-American audience attracted by an image of a young black woman will very likely share the content on social media and contribute to the PSA success.

Another reason might be related to food-shopping and food-consumption habits of African-American women in the US. According to (Fish, et al., 2013) many African American

women don't purchase and consume fresh vegetables and fruits due to limited cooking skills and low-impact. This statistic leads to the conclusion that an average African American woman does not generate organic trash. Therefore, the fact that a young African-American woman cares about food waste and seeks for a solution might be exemplary behaviour for the PSA audience.

Semantic Codes

Semantic or semic codes describe characters and settings. The intelligible semantic code is a casual dress that represents modernity and the young age of the lady. In this way, the young American woman illustrates the generation of American millennial whose interest and involvement in food gardening grows annually according to National Gardening Association Special Report (2014).

Symbolic Codes

To identify symbolic codes, antithesis or opposition should be found. There are several symbolic codes in this PSA. The first symbolic code is the polarity of the lady's facial expressions. She is sad and shame when the foul smell spreads but happy when food waste gets recycled. The study of (Jagau & Vyrastekova, 2017) found out that people feel shame and guilty when dealing with food waste.

A social distance in advertisements is described by (Lick, 2015) as an important aspect of reaching the audience. The motion zooms in the lady's face magnifying the effect on the audience. At that moment the lady looks down sharing a power to be a problem-solver.

Unsustainability vs Sustainability is the second symbolic code. Unsustainability is presented in the Ad as food waste polluting atmosphere and negatively affecting humans' health. Sustainability is recycling food waste into compost which benefits to the environment and specific household in the way of vegetable production. This line continues in the opposition between disposal food and ge-nerating food, between stinky black trash bags vs lush vegetation. The last one is the pro-tagonist herself. Being a problem-creator in the beginning, she becomes a problem-solver in the end.

Cultural Codes

Cultural codes are associated with common knowledge of history, culture, science shared by members of a certain culture. In the PSA the young lady puts two trash bags outside of the house. Later we can see the yard full of organic trash. In some cultural settings, this phenomena might be unrealistic. However, according to the National Resources Defense Council report (2014), 40% of food in America is wasted.

Another cultural code is the typography *I compost food waste* appeared above the woman's head and following after it the hashtag and the website address. These are a call to action, and collective voice.

Conclusion

The semiotic analysis of the PSA *I compost food waste* helped to understand a number of cultural, social and economic phenomena as well as evaluate the problem and the solution.

The author arrived at the following conclusions: The proairetic codes embodied in the PSA build the story-telling and show the audience one of the ways of solving the waste food problem. The remarkable thing about the narrative is that the PSA does not talk about global issues related to food waste directly but concentrates on one's personal problem, which makes the journey of the message from the authors to the audience shorter. However, the audience contributes to global problems solving without even knowing that.

The hermeneutic code first works as a hook attracting the audience by the title *I compost food waste* and stimulating curiosity of those who have never heard about the issue and those who are wondering how to deal with that. The ethnicity of the lady is a key to make the content of the PSA sharable.

The semic code analysis pointed to the importance of the right choice of the protagonist's attributes. The lady is young casually dressed, passionate about gardening and concerned about food waste, more than that she is active, she is a game-changer. It reflects the target audience of the PSA.

The symbolic codes give the audience a chance to choose between good and bad. Emotional people are influenced by the lady's facial expressions, those who concerned about ecology and health read the code "Sustainability vs Unsustainability", gardeners see the benefit of compost.

The cultural codes point to the existing bad habits and encourage the audience to make a difference. In conclusion, the success of public service advertising is a subject of design methods, level of education of audience, the novelty of the message, emotional atmosphere and the protagonist's characteristics.

The author suggests an improvement to future PSAs about composting food waste. The fact that by doing gardening, people participating in solving global issues might encourage them more and stimulate action. Another suggestion is to educate kids on the personal level.

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