

**Understanding the Role and Effectiveness of Public Service
Announcements in Promoting Social Messages**

A Thesis Prospectus

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By

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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INTRODUCTION

Public Service Announcements (PSAs) are a great way to spread awareness of important topics in our day-to-day life. My STS project is an exploration of the role that PSAs play in today's society and how they are used to spread important information and promote social and public health messages. My research questions for the technical project are: 1) What makes PSAs effective, and how can we measure their success? 2) What factors contribute to the implementation and distribution of PSAs, and how do they impact their effectiveness? 3) What are the intentions behind PSAs, and how do they align with the messages and goals of the organizations that create them?

These research questions are important because they can help us to better understand the role of PSAs in society, and how they can be used to promote important social and public health messages. By examining the factors that contribute to their effectiveness, implementation, and intentions, we can develop recommendations for how they can be improved and better used in the future. Additionally, studying the effectiveness, implementation, and intentions behind PSAs can provide insights into the ways that different organizations and institutions use them to communicate important information and promote social and public health messages.

In this paper, I will be talking about my technical project, which is about using Artificial Intelligence and Machine Learning in cybersecurity. I will also take a look at previous successful PSAs such as Metro Trains Melbourne's "Dumb Ways To Die," various anti-bullying campaigns at school in the United States, or the U.S. Forest Service's Smokey Bear and his slogan, "Only YOU Can Prevent Forest Fires" for the STS Project portion of my prospectus. I will then create a list of key texts I will examine in the future and explain why each of the 4 sources is important in the scope of my STS Project.

TECHNICAL PROJECT

Cyber-attacks are a significant and growing threat to businesses, organizations, and individuals. To help detect and prevent these attacks, artificial intelligence (AI) and machine learning (ML) are being increasingly utilized. Our approach to cyber-attack detection involves AI and ML and uses supervised learning algorithms to train models that can recognize patterns and anomalies associated with different types of attacks. We also utilize unsupervised learning algorithms to identify previously unknown attack patterns. The implementation of our approach involves data preprocessing, feature selection, model training and evaluation, and deployment. Our results demonstrate the effectiveness of AI and ML in cyber-attack detection, achieving high accuracy rates and low false positive rates. Future work includes further refinement of the models and testing on larger and more diverse datasets, as well as exploring new AI and ML techniques to enhance the accuracy and efficiency of cyberattack detection.

STS PROJECT

For my STS Project, the technology I will be examining are Public Service Announcements. PSAs are a type of communication that is used to spread important information and promote social and public health messages to a broad audience. They are often broadcast on television, radio, or online platforms and are typically produced by non-profit organizations, government agencies, or other institutions. My main questions in relation to PSAs are: what factors contribute to the effectiveness, implementation, and intentions behind PSAs, and how do they impact the promotion of important social and public health messages?

The importance of understanding the role and effectiveness of PSAs in promoting social and public health messages is crucial for developing recommendations for improving and better utilizing these types of communications in the future. Examining the factors that influence their

effectiveness, implementation, and intentions can provide insights into how different organizations and institutions use them to communicate important information and promote social and public health messages. Additionally, studying the effectiveness, implementation, and intentions behind PSAs can help us to better understand the role they play in society and how they can be used to promote important social and public health messages.

The relevant social groups for this study are individuals who are exposed to public service announcements (PSAs) and the organizations and institutions that produce and distribute them. These groups can include the general public, specific target audiences (e.g. students, parents, caregivers, etc.), and the media outlets that broadcast or publish the PSAs. These groups have been defined and identified through the examination of the factors that contribute to the effectiveness, implementation, and intentions behind PSAs. This includes analyzing the demographics, attitudes, and behaviors of the individuals who are exposed to the PSAs, as well as the goals and strategies of the organizations and institutions that create and distribute them.

One group that might be relevant but is being left out of this study is the advertisers and marketing agencies that produce and distribute commercial advertisements. While commercial advertisements share some similarities with PSAs in terms of their use of media to communicate messages to a broad audience, they differ in their primary goal of promoting a product or service rather than a social or public health message. As such, they are outside the scope of this study.

The inclusion or exclusion of these groups is important for several reasons. First, it helps to narrow the focus of the study and ensure that the research questions and objectives are clearly defined. By limiting the scope of the study to PSAs and the relevant social groups, we can better understand the role that these communications play in promoting important social and public health messages and how they can be used more effectively in the future. In addition, the

inclusion or exclusion of these groups can also impact the validity and reliability of the research findings. By focusing on a specific set of social groups, we can better control for extraneous variables and ensure that the results of the study are accurately reflected in the data. This can help to increase the credibility and usefulness of the research findings, and ensure that they are relevant and applicable to the intended audience.

For this study, the Social Construction of Technology (SCOT) framework will be used as the primary method for examining the role of public service announcements (PSAs) in promoting social and public health messages. SCOT is a sociological theory that focuses on how social, cultural, and economic factors shape the development and adoption of technology. It views technology as a product of social interactions and relationships, rather than a neutral or objective entity.

There are several reasons why the SCOT framework is a good fit for this research. First, it allows for a more holistic and nuanced understanding of the role that PSAs play in society. By examining the social, cultural, and economic factors that shape the development and adoption of these communications, we can better understand the motivations and objectives of the organizations and institutions that create and distribute them, as well as the ways in which they are perceived and used by the general public.

Additionally, the SCOT framework is particularly useful for examining the complex and dynamic nature of communication technologies like PSAs. It recognizes that these technologies are shaped by a variety of factors, including cultural values, social norms, power dynamics, and economic interests. By considering these factors, we can gain a more nuanced understanding of the ways in which PSAs are used to promote social and public health messages and how they may be influenced by various stakeholders.

As part of my research on the effectiveness of public service announcements (PSAs) in promoting social and public health messages, I propose to conduct a case study at the University of Virginia (UVA). For this study, I will design and distribute three different PSAs to UVA students using a variety of methods, including posting them on public pin-boards around campus, sharing them on social media platforms, and spreading them by word-of-mouth. I will then collect data from a statistically significant proportion of UVA students through a poll or survey, which will ask them whether they have heard of each PSA and where they heard about it. By analyzing the data collected from this case study, I will be able to determine the reach and impact of each PSA and develop recommendations for how to create more effective PSAs in the future. I have outlined a full timeline below:

Week 1:

- Develop and design the three different PSAs that will be used in the study. These should be tailored to the specific target audience (in this case, UVA students) and should aim to promote an important social or public health message.
- Print the PSAs on posters and prepare them for distribution.
- Identify the locations on UVA grounds where the posters will be placed, including public pin-boards, social media platforms (e.g. Snapchat, Yikyak, TikTok), and locations for word-of-mouth distribution.

Week 2:

- Distribute the posters to the designated locations on UVA grounds.
- Create a poll or survey that will be used to gauge the effectiveness of the PSAs. This should include questions about whether the respondents have heard of each PSA and where they heard about it.

- Begin collecting responses to the poll or survey from a statistically significant proportion of UVA students.

Week 3-6:

- Continue collecting responses to the poll or survey on a weekly basis.
- Analyze the data collected from the poll or survey to determine the effectiveness of each PSA in terms of reach and impact.
- Based on the findings from the case study, develop recommendations for how to create more effective PSAs in the future.

KEY TEXTS

For my research, I will be reading about the effectiveness of the three Public Service Announcements I have picked out. The first article I'm looking at discusses the success of the "Dumb Ways to Die" PSA campaign in reducing the number of "near-miss" accidents on the Metro rail system in Melbourne, Australia (Cauchi, 2013). The campaign, which features a catchy song and music video with cartoon characters dying through stupid mistakes, has garnered over 40 million views on YouTube and is being expanded into schools and potentially licensed by overseas train operators. This relates to my STS Project because it shows that well-designed and catchy PSAs can be effective in promoting safety messages and influencing behavior change.

The second article I have discusses the Smokey Bear PSA (Bourgon, 2019). A campaign that was launched in the 1940s in response to concerns about the potential for fire to distract from the war effort and to raise public awareness about the threat of wildfire. The campaign features a cartoon bear named Smokey, who reminds the public that "only you can prevent forest fires." Smokey has been extremely popular, with an estimated 96% of adults recognizing him,

and his message has been effective in reducing the number of wildfires in the US. This has to do with my STS Project because it tries to understand the importance of the role and effectiveness of these types of campaigns.

My third source is a study by Gaffney et al. (2021), that found that certain components of school-based anti-bullying programs, including a whole-school approach, policies, and peer involvement, were significantly associated with larger reductions in bullying perpetration and victimization. These findings may inform future research on the effectiveness and design of anti-bullying programs and how PSAs can be used to promote them.

My final source of information provides guidelines and tips for creating a video PSA in order to highlight a behavioral health issue and reach a large audience (SAMHSA, 2015). This relates to my STS Project because it provides practical guidance on the development and implementation of PSAs, which can be a powerful tool for promoting social messages and influencing behavior change.

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