REPORTING FALSE ADVERTISING PLATFORM

WHO TO BLAME FOR THE L'ORÉAL CASE?

A Thesis Prospectus
In STS 4500
Presented to
The Faculty of the
School of Engineering and Applied Science
University of Virginia
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Science

By
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December 12, 2024

On my honor as a University student, I have neither given nor received unauthorized aid.
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Introduction

According to the County of Los Angeles Department of Consumer and Business Affairs (2011), false advertisement is defined as "untrue or misleading information given to you to get you to buy something, or to come visit their store." Although the Wheeler-Lea Amendment of 1938 added a section to the Federal Trade Commission (FTC) stating that any misleading promise or claim intended to deceive a purchaser is unlawful (Millstein, 1964, p. 444), 70% of consumers have encountered misleading advertisement at least once. (World Metrics, 2020).

Most methods suggested online to prevent falling for false ads involve taking precautions and being attentive to details (Sharma, 2023). Nevertheless, many naive individuals fall victim to deceptive claims, leading to lasting unease. False advertisement is a complex issue that cannot be solved solely by a technical approach as it requires fixing people's approach on consumer information. Customer trust is significantly damaged by experiences with misleading advertisements, which cause people not to take word-of-mouth seriously (Boush, Friestad, & Wright, 2009). Therefore, there should be a platform where people can share and report false advertisements, discouraging companies from making misleading claims. Such a reporting platform could address the issue from a technical perspective, while still exploring the social and cultural factors that affect false advertising.

A reporting website design should be simple yet reliable. It should have a consistent mentor to accept or rule out each claim made by a reporter to save both the consumer and business rights. Since false advertisement is an sociotechnical issue, an understanding of various factors is needed (social, cultural, environmental, etc…) to make sure the project succeeds.

To explore the social dimensions that contribute to false advertising, I will use the STS framework of actor-network theory (ANT) to investigate how L'Oréal's ads practices, a notably

misleading campaign from 2014, were influenced by its focus on market appeal. This will show how different actors played a role in L'Oréal's misleading claims. If we focus only on developing better detection and reporting tools but ignore the social factors that encourage it, we might enable the misleading practices to persist.

Because the challenge of addressing false advertising is sociotechnical in nature, it requires attending to both its technical and social aspects to accomplish successfully. In what follows, I set out two related research proposals: a technical project proposal for developing a new tool to report misleading claims and an STS project proposal for examining the social factors that contribute to false advertising in the case of L'Oréal.

Technical Project Proposal

A key challenge in false advertising reporting systems is accurately spotting real deceptive claims, and advertisers don't make it easy for consumers. To convey their product's effectiveness, companies often rely on carefully crafted language. Phrases like "clinically proven" were proven to stick in people's minds more than other phrases (Roehm & Tybout, 2006). This highlights the power of wording on consumer memory; however, current systems mostly rely on consumers to catch whether these phrases are legitimate, which is not a reliable solution. While there are Artificial Intelligence (AI) tools, such as Anura and Netcraft, to detect misleading claims, they often overlook these subtle tricks because they focus on simple cues. This shows the need for a system that blends human judgment with AI to create a reliable solution that can catch misleading claims.

Nowadays, consumers often read online reviews to verify the legitimacy of products or services before making a purchase. CapitalOne Shopping research (2024) reports that online

reviews impact 93% of all consumers' decisions of whether they are buying products, regardless of whether the reviews are positive or negative. Yelp, for example, is a big platform for sharing customer experiences and it has been reported that 92% of users agreed that negative reviews in Yelp helped them with their purchase (Elad, 2024). Another approach to identifying deceptive claims is using advanced Machine Learning (ML) algorithms to detect bots and report false ads.

Unfortunately, while there are various ways to detect and report dishonest ads, they still have many limitations. Google Reviews, for example, is one of the biggest sources for having fake reviews. According to Birdeye, a digital platform that assists businesses' digital reputation, recent studies show that 92% of consumers only read 2 reviews before making the decision to make a purchase (Mayers, 2024). This is concerning, as two reviews are insufficient to avoid scammers, especially on platforms like Google Reviews, which lacks a mechanism to verify that reviews come from a verified buyer. When it comes to AI detection tools, many are not free, restricting access to average users. Additionally, most AI fake ads detection tools are designed primarily for companies rather than individuals. A combined human-AI system would make false advertising detection/reporting more accessible and reliable for everyday users.

My proposed solution is a user-friendly website for reporting fake ads that combines AI and human verification to ensure accuracy and reliability. When a user submits a report, they would first need to verify their purchase either by uploading a photo or, if the purchase was made through a partnered company, through direct transaction verification. The report would go to an initial AI review, where a Deep Neural Network (DNN)—a computer model that learns complex patterns—would analyze it to detect fake reviews and flag any suspicious claims. Research by Huang, Yu, and Kao (2017) shows that DNNs are effective in detecting deceptive advertising and phone scams, supporting the proposed approach. The flagged ads would be displayed on the

platform for others to see but would require final verification by a human reviewer to confirm the report's validity. Users could search by product or company name to check if there are prior reports. A "Top Reports" page would highlight the most liked reports, helping users stay informed and take precautions.

In spring 2024, this design idea was partially implemented in a class in the computer science department, CS 3240. Django, a Python-based web framework that runs on a web server, was heavily used to make the structure of the web page and connect the website with Amazon 3S, which is cloud object storage to store users' information. However, the AI verification part was not implemented in this project. Data was collected from 25 different individuals who were asked about their thoughts on a reporting platform. The data showed the need of a reporting system and emphasized what the stakeholder looks for in a reporting website.

The needed technical skills for this project are expertise in machine learning algorithms and models, such as decision trees and deep neural networks (DNN). Proficiency in web development is also required to create the application as both an app and a website. Additionally, data analysis skills are essential and can be performed using Python programming language.

STS Project Proposal

In 2014, L'Oréal, a French multinational personal care company, launched new youth products (Lancôme Génifique and L'Oréal Paris) and claimed that these products are "clinically proven" to have anti-aging effects on consumer genes. L'Oréal further claimed that these products would cause visible younger skin within 7 days, attracting many hopeless people. The Federal Trade Commision announced that this claim is false (Federal Trade Commission, 2014). This study aims to explore this question: what roles do consumers, advertising platforms, and

regulatory agencies, as individual actors, play in supporting or challenging L'Oréal's claims about anti-aging products?

Existing perspectives on deceptive claims in anti-aging products focus on how L'Oréal created its campaign, especially in both the visual and the textual message. Steponaityte (2017) analyzes twenty-one L'Oréal campaigns throughout the years and states that all of them failed the test of ethical persuasion, including the "Anti-Aging" campaign in 2013. This failure is either due to the visual test, such as using models significantly younger than the targeted customers, or to exaggerated product descriptions, such as using "youthful radiance in just 7 days" phrases.

Some consumer advocates argue that the way companies use scientific words gives an impression of credibility to fall for dishonest claims. L'Oréal strategically uses these terms to attract buyers and build trust. A study from the University of California, San Diego with Radice Science proved that the phrase "Clinically proven" makes a product have a higher chance to be purchased (Bowen, 2023). While some perspectives offer insight into how different aspects of the company play a role in the L'Oréal incident, they often overlook how different aspects' interactions maintain misleading claims in the anti-aging industry. This problem continues because of companies' scientific-sounding words, people's societal beauty standards, and regulations failure. Additionally, this issue encourages other companies to copy these misleading tactics, making the problem even worse. Assawavichairoj and Taghian (2017) explore this issue and find two primary reasons why people buy anti-aging products: maintaining their self-image and enhancing their social acceptability. These motivations often make consumers purchase products and become vulnerable to deceptive advertising. This suggests the need for an integrated perspective, such as actor-network theory, to better understand the persistence of false

advertising and why consumers continue to fall for misleading claims. Most discussions consider only individual roles and overlook the networked dynamics.

Actor-Network Theory (ANT) is a sociological framework that explains how a network builder creates heterogeneous networks of human and non-human actors to solve a problem or achieve a goal. Developed by Michel Callon, Bruno Latour, and John Law, ANT emphasizes the central role of the network builder in bringing diverse actors together (Springer, 2011). By applying ANT, we can analyze L'Oréal's anti-aging advertising claims through the lens of the network builder and the diverse actors involved. This approach offers a comprehensive view of how these actors interact to shape and sustain L'Oréal's claims. ANT approach highlights how changes in one aspect, such as raising the awareness of self-acceptance, could create changes across the entire network, which might reduce false ads in the L'Oréal case. This is valuable because it emphasizes the connected roles each actor plays, not only focusing on L'Oréal catchy advertisement phrases.

ANT analyzes how human and non-human actors (ad claims, algorithms, or beauty addiction) have an effect in the L'Oréal case. To further understand how each actor played a role in L'Oréal's campaign, this study will analyze advertising content, consumer' social issues, and regulatory statements. These sources will show how different parts of the network influenced what consumers thought and how they reacted to L'Oréal's claims.

Conclusion

In conclusion, this prospectus discusses two research approaches to address the issue of misleading advertisements and facilitate consumer reporting. The technical project of this prospectus proposes the development of a new reporting platform that utilizes both AI and

humans to verify reported claims and build a network that protects consumer rights of misleading advertisements and reviews. This platform directly addresses the technical aspects of reporting and verifying false claims. Complementing this, the STS proposal employs ANT and network builders to analyze the roles of various actors in the L'Oréal case (consumers, regulators, and campaigns) in contributing to deceptive advertising. By constructing and examining these interconnected networks, the STS project aims to better address the complex societal factors that influence false advertising. The technical and STS projects collectively would propose a solution which addresses both the technical and social aspects of false advertising while promoting transparency in the beauty industry's marketing practices.

Introduction: 412

Technal Project: 704

STS Proposal: 592

Conclusion: 151

Word Count: 1859

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