

Phone-to-Car FM Transmitter
(Technical Report)

**Using the advertisement of early Macintosh computers to analyze how Apple envisions its
users**
(STS Research Paper)

An Undergraduate Thesis Portfolio

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Table of Contents

Socio-technical Synthesis

Phone-to-Car FM Transmitter

Using the advertisement of early Macintosh computers to analyze how Apple envisions its users

Prospectus

Socio-Technical Synthesis

My technical work and STS research both address how technology is designed with the user in mind. My STS research focuses on how early Apple computer advertisements show that Apple was specifically targeting a certain type of user, while ignoring other potential users. For my technical design, my team and I originally wanted to appeal to as many users as possible, so we based our design around having a general power source, since many similar products on the market were limited to one power source. While these topics are vastly different, they each show how different design decisions can affect the potential user of the technology

The new device my team and I designed was a Phone-to-Car FM transmitter. The purpose of this device was to allow a user to play music from their phone to the car speakers if they had a car that did not have Bluetooth or auxiliary capabilities. Originally, we designed it to be powered by general USB, so it could be used in other places besides the car, however, once we started testing we realized this was a lot more difficult than we thought, so the design was changed to solely using car power. This was successfully accomplished by creating a software defined radio (SDR) that included an FM transmitter and receiver, a microcontroller, an antenna, a reset button, and an LED display. To use this device the users, plug one end into the cigarette lighter port of their car and the other end into the auxiliary jack on their phone. Next, they just have to press a button and a frequency is displayed on the device. Finally, the users must tune their car radio to the frequency displayed and they will hear their music playing through the car speakers. If that frequency becomes noisy due to someone else broadcasting on it, the user can just hit the button again to find a new frequency to broadcast on.

My STS research explores how Apple has embedded its ideas about its users in its advertisements for its computers released prior to 2010. My research analyzes how a lot of Apple's advertisements, both print ads and commercials, focused on the character of the buyer, rather than trying to sell the technical aspects of the computer itself. I concluded there were three main ideas Apple had about its users: they have a desire for competition, a desire to be a part of a community, and a desire for simplicity. By catering its advertisements to this type of user, Apple ended up pushing away buyers who might not have fit this description such as people who were more technologically savvy. The goal of my research was to give the reader a better understanding of how designers may be targeting their character when selling a product.

Unfortunately, I did not have the opportunity to work on both projects simultaneously. My technical project was finished at the end of my Fall semester and I did not even choose a topic for my STS Research until the following Spring semester. If, however, I did have the opportunity to complete these at the same time I think I would have designed my technical device a little differently. After doing the STS research it made me think a lot about what a product says about its users. I think I would have included an option for the user to manually set a frequency on the transmitter, because it gives the more technically advanced user the chance to have more freedom with the transmitter. Because we didn't include this, I think our product catered specifically towards people who wanted a simple device without any customization and left out those who might want to take the product further and use it in a different way.