

**Social Media Addiction: Effects on Users and How Companies Can Right
Their Wrongs**
(STS Research Paper)

Media Fakes: Finding Social Media Accounts of General Officers
(Techincal Paper)

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2004 was the year that Facebook was launched into the public sphere. From that very moment, its influence spawned many more social media apps, like Snapchat, Instagram, TikTok, and YouTube. My research has been aiming to solve the problem of Social Media, and what impacts it has had on society. My technical capstone project focused on creating an algorithm to flag fake social media accounts trying to impersonate a specific person. For example, if you were to make an account today trying to impersonate Xi Xipeng, the algorithm would flag it as a fake account. My socio-technical paper focused more on the effects the overuse of social media has on its users and the methods that companies use to keep users coming back.

The socio-technical problem aimed to uncover the symptoms of social media addiction, and what social media can do to combat this addiction. Using actor-network theory, I analyzed many studies to find that overuse leads to many symptoms, like negative self-image, anxiety, and an increase in the fear of missing out when not using social media. This overuse of the apps is caused by one of many factors, one of which is infinite scrolling. Companies can implement many tools, like a bar to track scrolling speed, or switching to pagination from infinite scroll to circumvent their app's addictive qualities.

The technical problem dealt with impersonation online. It's been a widespread problem on the internet where nefarious actors impersonate people online to persuade users to give them money, and information, or for the nefarious actor to spread misinformation. These actors use the credibility of the people they are impersonating to increase their chances of success with their tasks. My technical project was to create an algorithm that could detect these accounts made by nefarious actors for specific individuals. We were able to create a process for Twitter and Facebook to pull information given an individual's name, finding accounts associated with them. The only issue with the Facebook algorithm is how locked down their API is to pull information, so the back door solution to pull data limits the number of accounts we were able to get to analyze.

Overall, the impact social media has had on the general public is immense. There are cases where social media has kept people together as a means to connect, but the way these apps are designed, many individuals suffer from addiction, leading to a myriad of negative mental health symptoms. Companies can implement many different methods to limit people's use and break up the addictive properties of their applications, like having the option to cancel infinite scroll or having clear directions to set a screen time limit for their app. In terms of impersonation, we were able to create a bare-bones algorithm to detect fake accounts, but the biggest contribution is the process of retrieving account information from Facebook. In the future, researchers can use this process to develop an AI model to detect fake accounts based on high-profile individuals or add a process to pull general information about the person to apply to their verification model. Researchers can also work on research into methods and tools to reduce screen time, as most research is into the effects of overuse on social media, and not how to go about preventing overuse.