Thesis Project Portfolio

The Future of Livestreaming: Strategy and Predictive Analysis for Future Operations of Facebook Live

(Technical Report)

Livestreaming Hate and Misinformation: The Societal Implications of Real-Time Access to Hate

(STS Research Paper)

An Undergraduate Thesis

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Bachelor of Science, School of Engineering

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Sociotechnical Synthesis

(Executive Summary)

Exploring the Future of Livestreaming to Minimize the Spread of Hate

Globally, over 2 billion users access digital news, gaming, and entertainment content via the internet. The synchronous nature of livestreaming allows for both users and streamers to engage in constant dialogue and formulate digital communities. The ability to access this information in real-time could potentially exacerbate modern-day social issues. Both of my projects focused on the historical and future growth of the livestreaming market. Both projects were highly related because of their cause-and-effect relationship. The technical project, the cause, recommended an increase in exposure to livestreaming content. The STS research paper, the effect, discussed the implications of having a more robust platform for streaming content over the internet synchronously.

In my STS Research project, I focused on the societal implications of having an advanced livestreaming platform. Using Mesthene's Economic and Political Organization Framework, I argued that the advancements of livestreaming would increase the consequences that society must face on problems that were once subject to a few individuals. Hate speech and misinformation will now be a problem faced globally because livestreaming allows that information to be spread instantly. I also argued that issues that were once dealt with in private expand to society because livestreaming empowers hate-speech and misinformation content creators. Additionally, I explored the social psychology behind why creators of negative content are motivated to post that type of information.

For my technical project, my team and I consulted with Facebook Live to develop a 3-year strategy to increase its reach across the globe. With greater demand for livestreaming content, competitors flooded the market with their livestreaming platform. Facebook Live asked us to develop a differentiating strategy to set them apart from their competitors to capture the screen time of users. As a final product, the team recommended an emerging content area (Education) and a comment synthesis tool to help engage users. We recommended a robust strategy that helped the Facebook Live team better understand the tailwinds of the market and how to invest in the market growth. Additionally, we delivered a comment synthesis tool design to help users engage more efficiently with comments. The final design groups comment by sentiment and allow users to choose which topics to engage in throughout the course of a stream. As a result of implementing these two recommendations, we believe that more users will be attracted to Facebook Live and will choose the platform as their primary way of obtaining content.

Having completed both the technical project and the STS research project, it is helpful to understand the need for both types of exploration. From a technical perspective, it is important to dig into the underlying products and implement modifications that will enrich the experiences of users. From a societal and people perspective, it is important to understand the implications that the technology will have on real people. I learned that is important to do these two types of research in conjunction rather than separately. Thinking about the people aspect while developing the technical aspect allows engineers to humanize the technology rather than solely creating a product that meets the requirements posed by the client.

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