Prospectus

Future of Livestreaming
(Technical Topic)

Effects of User-Platform Relationship Networks within Livestreaming Industry
(STS Topic)

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

Throughout the past decade, livestreaming emerged as a complex, dynamic landscape with a vast network of actors. Livestreaming allows users to broadcast a wide variety of content ranging from gaming, shopping, education, influencer streams, music, and many more topics. Variety of content opens livestreaming to general audiences, strengthening the market and attracting heavy competition across platforms. Facebook Live is one of these newer livestreaming platforms, added to the Facebook product line in 2015. The goal of the *Future of Livestreaming* technical project is to create a 3 to 5-year strategy for Facebook Live based on the forecasts of the livestreaming market. The objectives for Facebook Live split into two main categories. One category focuses on the financial impact of Facebook Live on the bottom line of Facebook as a whole, while the other focuses on how Facebook Live can help Facebook live up to its mission statement. Market forecasting will assist Facebook to decide development priorities and targeted investment to grow and add value to the Facebook Live product.

Livestreaming presents not only an easily monetizable delivery of content, but also a disruptive shift in society's interaction with media channels. Livestreaming platforms mesh together social media interactions with easily consumable, real-time content. The combination of social and entertainment values produces a new network of users ready to watch, engage, and form strong communities around content channels. The social implications of emerging livestream markets are extenuated through an analysis of behavior resulting from the COVID-19 pandemic in 2020. As people seek virtual forms of entertainment, the environment of livestreaming takes a larger role in providing engaging social

interactions. Research on the livestreaming ecosystem reveals a complex network of interactions between platforms, content creators, and user audiences. This paper will explore these relationship networks and the disruptive developments that livestreaming introduces to user-based technology.

Technical Topic (500-650 words)

Facebook sees around 1.7 billion active daily users and around 2.7 billion unique users each month. With the task of catering to such a large user base, Facebook is continuously innovating new features, content and products to add value to the platform. Facebook Live is one of many components Facebook uses to deliver content that will both grow and retain their user base. The responsibility of the *Future of Livestreaming* project is to create a short-term plan for Facebook Live that envisions the development direction of the livestreaming industry while increasing the value that Facebook Live adds to the general Facebook ecosystem. In doing so, the project team engages with an outside representative of Facebook Live, serving as the client. The project team functions on a role rotation calendar, with each member of the team serving as both Team Leader and Team Administrator for one term each.

Currently, Facebook defines the driving metric for Facebook Live's success as the aggregate watch time that users spend on the platform. This metric is fueled by content recommended to users through interest algorithms, with the effort to extend time spent using the site and to encourage users to return from inactivity (Wieringa and Gorgijn 2020). The emphasis of increasing user time spent in-app

raises questions on the quantity and quality of the content available to consume on the app. Without sufficient channels of content, livestreaming platforms have difficulty in capturing and retaining user attention. Facebook Live invests in premium content such as live sports and other premium event streams, but usually does not see a return on investment. Premium content streams succeed drawing in a 10-20% increase in visiting users, but do not hold a sustained increase in overall viewership. The success metric should then potentially be defined as the quality of interaction within the platform. The metric of interaction quality would be measured by comment volume, comment content, and relationship between viewer and broadcaster (Haimson and Tang 2017). This metric infuses a human characteristic into analysis and identify weaker content and areas or functionality in need of improvement.

Future research will split into three categories: underutilized markets, market forecasting, and general business strategy. Facebook Live's growth may very well lie in its ability to expand into potential underutilized or new markets without an established player. Two examples of such markets are education (higher education, "edutainment", etc.) and live shopping. Thorough analysis of emerging livestreaming markets and potential untapped markets will yield actionable recommendations for the future and expansion of Facebook Live. This forecasting will rely on both the previous data analysis conducted by Facebook as well as our own analysis using the proprietary data provided and outside resources. The goal of data analysis is structured to identify factors that may predict future user and viewership growth. Once strong predictions of future markets and viewership

drivers are identified, the results will translate into a 3 to 5-year strategic plan to serve as a deliverable to the client, Facebook Live.

STS Topic

The nature of how people interact with and consume media has been an ever-evolving component of society's development. In traditional formats, media channels are top-down, relying on organizations and publishers to disseminate content to audiences. Recent development and popularity of video on-demand sharing sites has prompted the emergence of platforms that support real-time, user-broadcasted content. These livestreaming platforms rely on a dominantly bottom-up model, where users create and broadcast content for other users to consume. Bottom-up video sharing and broadcast sites place a strong emphasis on the relationships between the platform and the user content creators. As companies find success from bottom-up sharing platforms, the dynamic relationships between user experiences and platform goals become serious points of research. This is where we begin to see attention toward user groups as valuable sources of innovation.

In the current research of user-enterprise relationships, a focus is placed on the relationships between corporate software users and vendors. These relationships are essential because of the responsibility of vendors to ensure good user experiences for their customers. From observations of the relationships between software developer, Oracle, and special interest user groups, "new power relations and possibilities for wielding of influence were formed through participation in user communities" (Mozaffar 2012). In the case of the livestreaming

industry, content creators wield power through their engagement with the fan base on the platform. The relationship between creators and their audience opens the channel for productive relationships between creators and the platform itself. Through this network of actor relationships, the livestreaming ecosystem configures users as contributors to the development of design and value of the platform. With the livestreaming industry growing at an exponential rate, the technology benefits from co-construction with users in a function that transcends deterministic views of technology and essentialist views of user identities (Oudshoorn and Pinch, 2003). This goes to say that the acknowledgement of users as developmental contributors opens new sources of valuable input towards the development of new technology.

The field of user-produced entertainment is especially subjectable to analysis of user-platform relationships. Framework for such analysis draws from the observations of user interactions on the platform and how the platform encourages or guides these interactions. Livestreaming giant, Twitch, leverages the relationships between users and the platform to cast the user into roles based on the desired pattern of interaction. “Scripts” are used to define the roles and classify the user interactions Twitch desires on its platform. “Scripting” users does not force the user to interact with the platform in a certain way, but rather identifies certain characteristics that explain how specific groups of users interact with the platform (Ask and Spilker 2019). The effective user scripting by Twitch establishes a constructive relationship with its users by understanding the underlying patterns of interaction with the platform. This approach is one form of implementation of user feedback and the employment of user groups to improve technology. Twitch treats its user base not as homogeneous, but rater as a heterogeneous mix of different

user groups. This enables the platform to observe different values that different users bring to the platform. By utilizing this approach to user relationships, the company incorporates the users in developmental decisions, whether it be direct feedback or through observation.

Livestreaming is an evolving technology with a network of actors made up of users, content creators, and the platform itself. In order to break down the complex interactions within these relationships, it is important to set the stage of rules and factors that influence the livestreaming industry. The livestreaming industry is in its relatively early development stage, and therefore has only seen a few closures on different technological interpretations. Because of this, different companies have vastly different interpretations of what ideal user-platform relationships should look like. In order to draw comparisons between the different platforms' approaches, a multi-layered typology stretching across many dimensions of streaming will be utilized to explain and account for variation (Spilker and Colbjornsen 2020). Spilker provides a 5-dimension analysis of the commonalities that exist within all variations of the livestreaming industry. By studying the commonalities between streaming services, the differences become more apparent. The goal of livestreaming user-group analysis is to explore the role of users in emerging technologies and explore the success metrics associated with proper utilization of user, creator, platform relationship networks.

Next Steps

The next step needed will be an exploratory overview of potential resources that contain data and information relating to user-platform relations. This overview will

target both user-generated reports of company interactions as well as company generated information on the topic. Some outlets that may contain relevant information are subreddits, discord servers, beta access trials, livestreams of pre-deployment showcases, blogs, message boards, and any other place that may serve as a forum for users to provide constructive feedback and document relationships with livestreaming platforms.

After a gathering of readily available online resources, the livestreaming companies will be contacted to inquire into their current stance and utilization of user group feedback. Synthesizing the components of the research will yield a comprehensive look into the user-platform interactions and involvement of these relationships in the rolling development of livestreaming technology. The nature of livestreaming's effect on social interactions in media channels will also be explored to contribute insight to the relationship network.

References

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