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INVITATION TO LISTEN: MAPPING CLUBHOUSE'S EARLY INVITE-ONLY SOCIAL CAPITAL NETWORK

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Introduction

During the COVID-19 pandemic, Clubhouse's invite-only, drop-in audio app (clubhouse.com) attracted thousands of users to its platform, especially after it won over high-profile figures such as Elon Musk. Mainstream news media widely reported on the rising status of the audio-focused social network (Caroleo & Maiello, 2022; Strielkowski, 2021). Perhaps considering Clubhouse's early success, major social networks also began experimenting with or unrolling audio features as well, such as Twitter Spaces (Somerville, 2021), while Facebook, Slack, Reddit, and LinkedIn have all released audio functions since mid-2021 (Rodrigo, 2021). Yet, Facebook, Twitter, and YouTube remain among the most studied social media platforms (Stoycheff et al., 2017), while only a limited number of studies focus on audio platforms such as Clubhouse (Jung et al., 2022). The present study thus theorizes Clubhouse as a drop-in audio social media platform to connect people, examines its early social network, and contributes to social media literature as Clubhouse represents an earlier iteration of an emerging social media sub-genre. The paper's primary contribution is a social network analysis of early Clubhouse users and their invitation networks, revealing a hierarchy of social exclusivity among networked publics, which indicates an embedded capitalist social structure and connection that grants access to those with more social and economic power. These networked relationships provide insights into how invite-based emerging social media platforms are formed and grow in ways that counter the democratizing rhetoric found in their branding and public relations.

Theoretical Framework

Networked publics is a framework theorized by boyd (2011) that defines "publics that are restructured by networked technologies" (p.39). Networked publics share similarities

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with many other types of publics because they “allow people to gather for social, cultural, and civic purposes, and they help people connect with a world beyond their close friends and family” (p.39). Research on networked publics mentions that social networking sites provide technological affordances which are conducive to the environment where the networked publics interact and participate (Xu & Luttman, 2021). Bonini (2015) further proposed a concept of networked listeners based on the concept of networked publics. Listeners can be transformed from passively listening to becoming active “producers” where they create content and information that takes place in a variety of online environments. Both listeners who are passively listening and actively producing are “visible nodes in an interconnected network, the network of a radio’s digital community” (ibid, p.14). Bonini defines this new listening experience as the “augmented radio listening experience” which consists of listening, discussion, comments, and the production of content on social networks connected to the radio (p.14-15).

Drop-in audio, social network apps are also relevant to discussions of social capital (Bourdieu, 1983; Lin & Smith, 2001). Social capital theory explains the processes of capitalization in social networks and argues that capital transforms into social relations as a form of investment with expected market returns, whether economic, political, labor, or community (Lin, 2001). Lin describes social capital as resources that reveal a mechanism to help understand the “macro-micro linkage between structure and individuals” (p.3). The concept of social capital paired with individuals’ participation in social media has been discussed over recent years (Gil de Zúñiga et al., 2012; Julien, 2015), and as the emergence of social media has complicated the structure of social networks and social capital (Gil de Zúñiga et al., 2017). Research has shown how social media contribute to the development of social capital, and how social capital created in social media settings is conceptually and empirically different from social capital created in the offline geospatial structure of interpersonal relationships (ibid). However, social media researchers continue to explore social capital in new media settings as emerging technologies evolve and grow. This study examines the debut of a new social media platform, Clubhouse, how individuals enact social structure to connect social resources in the early development of Clubhouse, and how social capital on social media affects their online community-building.

Research Questions

(R1) What kind of central social actors exist in the early development of Clubhouse invitation networks?

(R2) What kind of social structure is revealed by these centrally networked individuals in early growth of the Clubhouse network?

Method

Clubhouse is a communication channel of interconnected individuals, and the structure of its communication network contributes to understanding the manifestation of its social community (Milgram, 1967). Social network analysis may be used to investigate such social connections or structures (Scott, 1988). Network analysis is an approach

grounded in specifying various social ties that connect individuals to different forms of social collectivities. From a structural perspective, the embedded structure of connected social ties has significant consequences for those connected individuals (Zhang, 2010). Through studying relational or network data, social network analysis helps to explain relationships between two or more social actors in their purposive action and embedded social structure. To facilitate uncovering this social structure in early Clubhouse membership, we retrieved a data package containing Clubhouse user information (including items such as followers/following and invitation data) from Kaggle created on April 5, 2021 (kaggle.com/datasets/johntukey/clubhouse-dataset). We extracted the first batch of 6000 users who were invited to Clubhouse in chronological order and applied the visualization algorithms Yufang Hu (Hu, 2005) and Fruchterman- Reingold (Fruchterman & Reingold, 1991) in Gephi to sort out different communities and examine their modularity (Figure 1). Users' names were anonymized for privacy protection.

Results

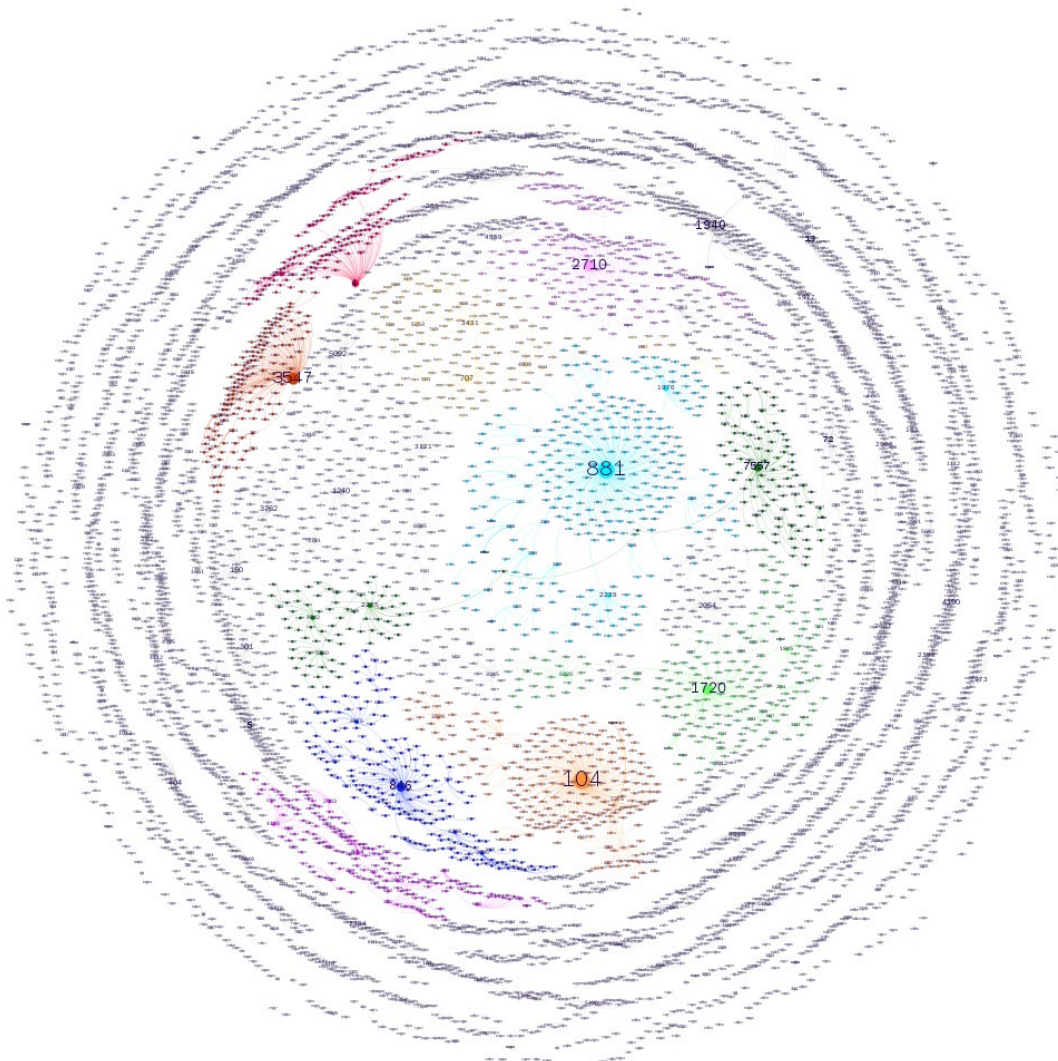


Figure 1. Early Clubhouse invitation network visualization.

Size Distribution

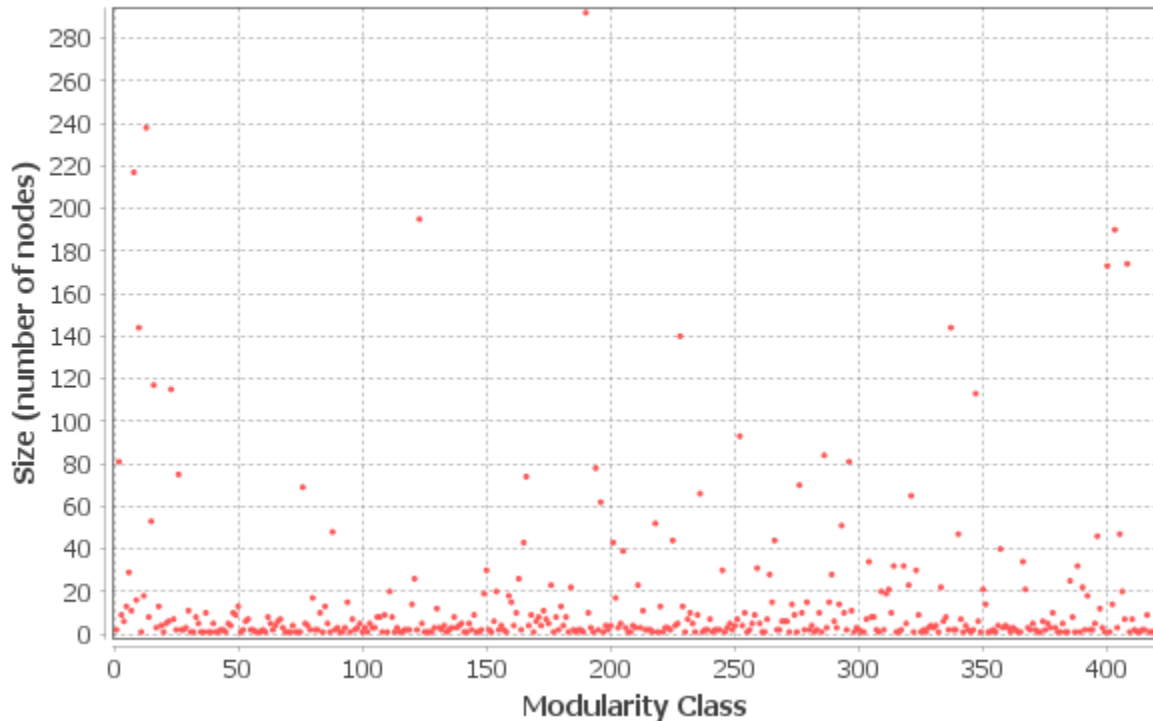


Figure 2. Modularity Report.

There are 421 communities in our sample network, including the 10 largest communities containing more than 140 nodes (Figure 2). The Clubhouse invitation network contains a high centrality with a direct connection of nodes to the ego. The top ego nodes represent individuals who all share common backgrounds in venture capital or entrepreneurship and generate hundreds of invitations utilizing their social network for information resources. The early Clubhouse invitation network shared a characteristic of a higher degree of centrality for major actors and relied on their high level of social network ties and betweenness to develop. The social connection of ego nodes divides the overall network into different social communities, revealing the inequality of information, prestige, and social networks.

Discussion

This study argues that the founding and development of Clubhouse entrenches the existing social structure that individuals inherit rather than fundamentally changing it, as per company rhetoric in advertising and public relations. As mentioned in their weekly Clubhouse rooms, the founder's vision is to allegedly promote free speech and provide a democratic platform by developing their software to allow everyone to speak. As some have argued, radio and new tech convergence are seen as “a truly democratic participatory public platform” or that “the medium itself becomes an embodiment of democracy” (Bottomley, 2020, p.229). Our results show that this is far from the case, as Clubhouse’s early invite network is deeply embedded in social capital relations. Individuals are divided by their network hierarchy and constrained within their social capital networks. We find that the ‘cool-factor’ is likely not the main factor at work in

early invite-only audio social media network growth. In mapping Clubhouse's early invitation network, the exponential growth of Clubhouse reflects a process of capitalization where venture capitalists, founders, and executives were the 'invisible hands' that exchange their social capital for social networks. This study finds that Clubhouse's early network reinstated existing social structures rather than serve as a democratizing connective force for networked publics. Viral social media platforms such as Clubhouse depend on capital's hierarchical and embedded structural aspects to further develop their social networks among users.

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