PARALLEL PLATFORMIZATION OF HEALTH: HEALTH COMMUNICATION ON DOUYIN AND TIKTOK

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Introduction

Douyin and TikTok, both owned by ByteDance, have become significant platforms not only for entertainment but also for health communication. Health professionals increasingly use these platforms to integrate health education with entertainment, simplifying medical information for public comprehension (O'Donnell et al., 2023). Despite their similar technological features, the two platforms operate in different platform ecosystems with distinct sociopolitical and regulatory environments, a phenomenon conceptualized as "parallel platformization" (Kaye et al., 2021). Unlike the conventional notion of platformization, which often assumes a homogenizing effect across digital platforms, parallel platformization highlights how platforms adapt their features, business models, and governance structures to fit the regulatory, cultural, and economic conditions of different regions. Building on this conceptual framework, this study examines how Douyin and TikTok's infrastructure, business model, and governance of healthcare industry influence the dissemination of health information and self-presentation by healthcare workers.

Method

To examine the impact of parallel platformization on health communication, this study analyzes the content and homepages of ten popular verified doctors on Douyin and TikTok, and compares the platform policies on the healthcare and pharmaceutical industry. The analysis focuses on how infrastructure, business models, and governance shape the self-presentation and information dissemination strategies of healthcare professionals across the two platforms.

Since neither Douyin nor TikTok provides a function to rank user search results by follower count, it was not possible to systematically identify the most-followed healthcare professionals. So ten verified doctors were selected based on a manual search for "doctor" (in English on TikTok and in Chinese as "医生" on Douyin) using each platform's user search function. From the search results, ten verified accounts with

relatively high follower counts that actively produce medically relevant content were identified (Table 1). On TikTok, only accounts published videos in English were included.

Table 1
Ten Popular Verified Doctors on Douyin and TikTok

No.	Douyin account	Homepage link	Followers	TikTok account	Homepage link	Followers	Country works in
1	医路向前巍子	https://v.douyin.com/id3MgfFK/	24.9M	dermdoctor	https://www.tiktok.com/@dermdoctor	18.1M	United States
2	心中有术	https://v.douyin.com/id3rfFEy/	11M	doctoryoun	https://www.tiktok.com/@doctoryoun	8.4M	United States
3	陈医生夫妇	https://v.douyin.com/id3rYNrH/	9.3M	dr.karanr	https://www.tiktok.com/@dr.karanr	5.3M	United Kingdom
4	妇产科牛诤医生	https://v.douyin.com/id3renrf/	8.5M	lifeofadoctor	https://www.tiktok.com/@lifeofadoctor	3.9M	United States
5	妇产科李主任	https://v.douyin.com/id3rdtma/	6.6M	doctor.siya	https://www.tiktok.com/@doctor.siya	2.7M	South Africa
6	李瑛	https://v.douyin.com/id3rTA7H/	6.3M	doctorgraves	https://www.tiktok.com/@doctorgraves	2.7M	United States
7	张强医生	https://v.douyin.com/id3rWs4A/	6.3M	footdocdana	https://www.tiktok.com/@footdocdana	2.4M	United States
8	皮肤科医生王世宁	https://v.douyin.com/id3rGkvq/	5.1M	doctormike	https://www.tiktok.com/@doctormike?	2.3M	United States
9	鹤立烟雨	https://v.douyin.com/id3r3Bm8/	4.6M	doctorsood	https://www.tiktok.com/@doctorsood	2.3M	United States
10	郝鹏医生	https://v.douyin.com/id3rxMkN/	4.3M	doctor.darien	https://www.tiktok.com/@doctor.darien	2.1M	United States

The content analysis examined communication strategies in the doctors' videos. Data was collected on January 31, 2024, by screenshotting each doctor's homepage and downloading the first 20 videos displayed on each doctor's homepage. The sampling number of 20 was informed by Douyin's unregistered user viewing limit, which allows a maximum of 20 videos to be watched without login. While TikTok does not impose a similar restriction, this sampling approach ensured consistency across both platforms. A codebook was developed based on prior research (Vizcaíno-Verdú & Abidin, 2022) and inductive observations (Table 2). To complement this analysis, the homepage features of the selected accounts were also examined. The homepage analysis codebook was developed based on the affordances of each platform (Table 3).

In addition to video and homepage analysis, this study also conducted a policy analysis of platform governance on health-related content. Relevant policies were retrieved from TikTok's Business Help Center (2024) and Community Guidelines (2024a) and from the official service account of Douyin Health (2023). These documents were analyzed to compare how each platform regulated healthcare professionals and medical content.

Table 2
Content Analysis Coding Scheme

Dimension	Category	Explanation
Image	Meme	Stickers, emoji, memes, GIFs.
	Visual effect	Special effect such as green screen, duets, stitch, etc.
	Transition	Cut, mix, dissolve, fade, zoom in/out, etc.
	Vertical	The video is presented in vertical instead of horizontal view.
	Professional setting	Wearing scrubs or lab coat, or filming in the hospital or office.
Audio	Music	Background music.
	Sound effect	Diegetic sounds, such as laughing, shocked, question, etc.
	Voice	Real human voices.
Text	Title	A piece of text that summarises the video content.
	Subtitle	A piece of text that translates or transcribes the narrative.
	Emphasized text	A piece of text is highlighted to emphasize some certain content of the video.
Storytelling	Warning flag	A banner over the video, warning that information in the video is for reference only, consult your doctor if you feel unwell.
	Reference	Give clear source for the information in the video, such as research paper or report title.
	Personal experience	Use personal experience or experiences from others (e.g., friends, families, patients) as an entry point.
	Interaction	Engage with the audience by asking questions or replying comments.
Content	Knowledge	A video explains medical knowledge, such as symptoms, self-diagnosis, prevention, or/and treatment of a disease.
	Anti-rumour/stigma	A video responses to rumors, stigmas, hate speeches, or mis/disinformation.
	Update	A video about newly published medial policies, research, or statistics.
	Daily life	A video does not contain much medical knowledge and shares personal lives.
	Entertainment	A video with no serious content, just to amuse viewers.
	Advertisement	A video aims to sell or promote a product.

Table 3
Homepage Analysis Coding Scheme

Dimension	Category	Explanation
Profile setup	Professional bio	The profile includes a professional bio with career-related information, such as specialty, place work in, education/work history, etc.
	Name	Present real name in the profile.
	Avatar	Use real human photo as avatar.
	Link	Use external link to direct viewers to external website or other social media platforms.
Content organization	Playlist	Use playlist function to categorise videos for specific topic(s).
	Pinned	Pin certain video(s) to the top of the profile.
	Cover	Use a unified format for video covers.
Service	Shop	Use e-commerce feature to showcase or/and sell curated products.
	Consultation	Offer online consultation service or online booking for our-patient service.
	Livestream	Enable livestream playback or advance notice.
	Subscription	Enable shiny badges, exclusive videos, and members-only LIVEs to subscription community.
	AI chatbot	An AI digital twin to respond messages 24/7.
	Fundraising	Enable viewers to donate to the curated organization.

Preliminary Findings

Infrastructure

Despite offering nearly identical features, healthcare professionals on Douyin and TikTok engage with audiences differently. On TikTok, doctors frequently use Duet, Stitch, and reply with video functions to interact with viewers, respond to trending discussions, and debunk misinformation. The green scree effect is widely used for real-time corrections, allowing doctors to overlay their responses onto misleading claims. In contrast, Douyin lacks the green screen effect, and while functions like stitch and reply with video exist, doctors rarely use them to address specific viewer comments. Instead, they prefer a lecture-like oral presentation style, speaking directly to the camera with minimal visual effects or transitions.

Another notable difference in infrastructure is the presence of warning flags on Douyin, which remind viewers that content is for reference only and does not replace medical consultation. This advisory, displayed as a banner reading "内容仅供参考，如有不适请线下就医" (translated as "Content is for reference only; if you feel unwell, please seek offline medical care), reflects a cautious approach to health communication on Douyin. On TikTok, such disclaimers are only applied to COVID-19 and vaccine-related videos (TikTok, 2024b).

Business Model

The commercial activities of healthcare professionals are strictly controlled on Douyin. In May 2022, the Chinese government banned health professionals from selling products via livestreams (National Health Commission, 2022). As a result, several monetization functions commonly available on TikTok – such as e-commerce shops, subscription-based communities, and fundraising– are absent for doctors on Douyin. Beyond direct sales restrictions, verified doctors are also barred from using direct messaging function, preventing private interactions with followers. These limitations aim to curb the commercialization of medical authority. While to compensate for limited direct doctor-patient communication and monetization options, Douyin integrates its built-in online healthcare app, Xiaohe, which enables paid online consultations and appointment bookings, providing an alternative, platform-controlled avenue for doctors to monetize their expertise. This model positions Douyin as an intermediary in the doctor-patient relationship, maintaining stricter oversight on medical services offered on the platform.

By contrast, TikTok allows healthcare professionals greater commercial freedom. Doctors can sell products via TikTok Shop, interact with follower community via paid subscriptions, raise funds for approved organizations, and even direct audiences to external websites or platforms by embedding links in their homepages. These features allow doctors on TikTok to diversify their revenue streams beyond clinical consultations. Unlike Douyin's centralized and regulated model, TikTok operates a decentralized commercial system, allowing healthcare professionals to independently manage their financial interactions and branding strategies.

Governance

Douyin enforces strict verification and content moderation for healthcare-related content. Only verified healthcare professionals and institutions are allowed to publish medical content. Verification is restricted to attending physicians or higher from public hospitals, and only secondary or higher-tier public hospitals can obtain institutional verification. Although not required, most of the verified doctors display their real names, specialties, and hospital affiliations to showcase their authority. Douyin's content moderation guidelines (2023, 2024) prohibit videos that promote medical efficacy claims or contradict established textbooks, medical guidelines, or expert consensus. By contrast, TikTok does not explicitly regulate who can publish healthcare-related videos. Instead, its governance primarily focuses on regulating healthcare advertising, with policies varying by country based on local laws. TikTok Business Help Center (2024) outlines specific advertising restrictions for healthcare-related products and services, including OTC medicines, medical institutions, pharmacies, medical devices, and cannabidiol cosmetics by countries. In most countries, prescription medicine ads are prohibited, OTC medicines and medical devices are age-restricted (18+), and cosmetic clinic advertisements are banned in some regions while restricted to adults in others. However, TikTok has no specific policies governing the dissemination of general medical knowledge.

Overall, the strict oversight on medical content and verification requirements on Douyin shape a highly regulated health communication environment, where doctors maintain a serious and professional demeanor, aligning with the platform's controlled approach. In contrast, TikTok's more flexible governance allows broader participation in health communication, enabling doctors to adopt diverse, interactive, and engaging formats. These differences highlight how platform infrastructure, business models, and governance shape health discourse, influence how healthcare professionals present themselves, and impact the dynamics of digital health communication.

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