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Research on Ternary Interactive Gatekeeping Model for Multi-Channel Networks (MCNs) in Social Media Era

Jie Xin, Wan Ni and Zhiyuan Yu *

School of Journalism and Communication, Shandong University, Jinan 250100, China;
xinjie@mail.sdu.edu.cn (J.X.); niwan@sdu.edu.cn (W.N.)
* Correspondence: yuzhiyuan@sdu.edu.cn

Abstract: In the digital content industry, the emerging multi-channel networks (MCNs) have dramatically changed the ways of content production and distribution in sustainable social media. As a result, it also brings an unprecedented impact and challenge to the traditional gatekeeping model, which play a vital role to describe and explain the reporting process regarding news events. In this paper, we propose a Ternary Interactive Gatekeeping (TIG) model and then discusse the gatekeeping behaviors of MCNs from the aspects of content production and distribution, which intend to integrate the roles of MCNs, content creators and social platforms all in one. In this way, MCNs are not only the intermediary, but also undertake the responsibility of gatekeeper in social media, which exerts the important role in online pseudo-environments. Semi-structured interviews are conducted with 15 interviewees that consist of the advertiser, creator, and staff in MCNs and platforms. For the content production, the gatekeeping behaviors of MCNs consist of selection, shaping and withholding. Those contents that satisfy the profits and development requirements of MCNs are chosen. For the content distribution, the gatekeeping behaviors of MCNs consist of display, timing and repetition, which aim to realize the high media exposure for Internet users. It can be seen that MCNs’ gatekeeping behaviors are affected by the business-logic. By the proposed gatekeeping scheme, we intend to provide a new perspective for future research on information management of social media.

Keywords: social media; multi-channel networks; gatekeeping model; online platform

1. Introduction

Since 2005, multi-channel networks (MCNs) have been emerging as an independent institution affiliated with social platforms (e.g., YouTube, Facebook, Twitter, etc.). Depending on the huge amount of third-party providers, MCNs can offer services of audience development, content programming, creator collaborations, digital rights management, monetization, and sales [1,2]. According to AllTheResearch’s analysis, the global MCNs market is worth US$ 2943.0 million in 2018 and is expected to reach approximately US$ 4500.9 million in 2027 at a CAGR of 5.5% [3]. In China, the number of MCN agencies have exceeded more than twenty thousand in 2019, which increase 12.5 times compared to that in 2015 [4]. Meanwhile, the market size also increases from US$ 123.1 Mn (in 2015) to US$ 2584.6 Mn (in 2019) [5]. As an intermediaries between social platforms, advertisers and content creators [6], MCNs have significantly affected the ecology of social media [6–8] by cultivating the professional content producers and promoting the advertising deals [9].

After initial suspicion, the huge commercial value of MCN has been discovered by YouTube and the other media giants [2], which could be confirmed from a series of acquisitions as shown in Table 1. Since then, MCN’s business forms have become more diversified [10] and transformed into MPN (multi-platform network) [11,12].
Table 1. Information of initial MCNs.  

| Name           | Foundation Time | Acquisition Time | Acquirer                     | Consideration (Million USD) |
|----------------|-----------------|------------------|------------------------------|-----------------------------|
| Revision3      | 2005            | 2012             | Discovery                    | 30                          |
| Broadband TV   | 2005            | 2013             | RTL                         | 40                          |
| Next New Networks | 2006          | 2011             | YouTube                     | <100                        |
| Maker Studios  | 2009            | 2014             | Disney                      | 675                         |
| StyleHaul      | 2011            | 2014             | RTL                         | 107                         |
| Fullscreen     | 2011            | 2015             | AT&T and Chernin Group      | 200–300                     |
| AwesomenessTV  | 2012            | 2013             | DreamWorks Animation SKG    | 30                          |
| AwesomenessTV  | 2012            | 2014             | Hearst                      | 81                          |

1 Source: Wikipedia [13]. 2 Hearst acquires 25% of Awesomeness TV.

The rapid development of MCNs has attracted the interest of researchers. As an organization, MCNs actually manage a large number of creators [7], which resulted in a brand-new screen talent training model [14]. The functions of MCNs can be summarized in two-fold: On the one hand, MCNs are regarded as the emerging entrant in advertising industry [15], which act as the intermediary between advertisers, creators, and platforms [6] and make social media marketing more scaled and professional [16]. On the other hand, MCNs have significantly increased creators’ exposure [17] and broadened the scope of their careers [18].

With the advance prosperity and development of MCNs, online platforms and social media, the rise of the unique advantages (e.g., the vast scale and near-real-time observation [19]) and the lingering risks (e.g., the growing traceability of individual and collective behaviors) of social media data increase people’s concerns about the sustainability of the environment and democracy. According to Kuhlman et al. [20], sustainability may be defined as “maintaining well-being over a long, perhaps even an indefinite period”. It is of great significance for people to value and reflect on the long-term social risks and consequences brought by the development of digital technology and social media. In this sense, the composition, structure and function of gatekeepers gradually becomes important, especially for the “social big data” era.

With the developing of MCNs, there is no doubt that MCNs are already in the “key position” during the information circulation process and then actually undertake the role of gatekeepers. In this way, it is necessary to revise the existing gatekeeping models alone with the change of content generated process in media industry to foster attention to the long-standing environmental and democratic consequences of social media research.

Contribution and Organization

In order to overcome the shortcomings of the existing gatekeeping model and meanwhile reduce the societal risks raised by the traceability of individual and collective behaviors, in this work, we investigate behaviors of MCNs participating in the gatekeeping process and propose an adaptive gatekeeping model to describe its gatekeeping actions. The contributions of this paper are summarized as three-fold:

- First, we recognize MCNs not only as an intermediary, but also a gatekeeper in the process of information flow, which expands our understanding in terms of functionality. From this perspective, we propose the ‘Ternary Interactive Gatekeeping (TIG) model to highlight the coordination relationships between MCNs, content creators and platforms, which form a triplet during the gate processing.
- Second, we make a comprehensive illustration of MCNs’ gatekeeping behaviors throughout the production and distribution processes based on the findings of the interviews, which clearly demonstrates MCNs’ ability to affect the online information.
- Third, we explain that MCNs’ gatekeeping routines adhere to business logic and are split into two distinct aspects: (1) investors have the freedom to decide, and (2) none
of the participants’ interests can be jeopardized, which helps us better understand MCNs’ gatekeeping behaviors.

The rest of this paper is organized as follows: In Section 2, the literature review about gatekeeping theory and their limitations are presented. In Section 3, we propose and then describe the Ternary Interactive Gatekeeping model. In Sections 4 and 5, we illustrate the gatekeeping behaviors of MCNs from the perspective of production and distribution and clarified routines of MCNs’ gatekeeping based on the analysis results of interviews with related individuals. Section 6 discusses the relationship between MCNs and platforms and introduces the side effect and limitation of the proposed model. Section 7 concludes this paper.

2. Literature Review
2.1. Gatekeeping Theory

The gatekeeper theory proposed by Kurt Lewin is applicable to the dissemination process of news in mass media channels [21,22]. The linear gatekeeping model studied the news selection behaviors of tabloid editors, who undertook the role of terminal “gatekeepers” to select the news based on the predefined criteria [23]. A conceptual model emphasized the roles of the channel, which provide the significant functions for the audience, e.g., choosing and offering information, converting the information into symbols and transmitting the symbols to the audience [24]. McNelly [25] raised intermediary communicators in flow of news. Gatekeeping behavior exist not only in the terminal tabloid editors as described by White, but also in all sections of the entire communication channel. Galtung and Ruge [26] analyzed the chain of news communication and highlighted the “news factors”. Different with the view that believing gatekeepers’ choices are completely subjective, Bass [27] proposed a double-action internal newsflow model consisted of news gathering and news processing. Therein, the objective and systematic standards inside the news organizations are highlighted and play the important role in gatekeeping process.

However, the uni-linear gatekeeping model are not always applicable [28] and ease of use due to the fact that many channel in social life are not with the clear starting and end points [22]. In this way, some scholars summarize the movement of information and then propose the multi-linear gatekeeping model. Robinson [29] emphasized that the work team should be used as the analysis unit to establish a cybernetic model that can integrate complexity and determine key decision-making areas. Importantly, a set of nonlinear feedback relationships that are constructed to operate effectively in a specific technical environment should be included in gatekeeping models. A multi-level gatekeeping model proposed by Shoemaker indicated that individual gatekeepers work under the influence of institutions, internal and external forces along channels, and feedback [30].

Currently, the social media has completely affected the traditional content production and gatekeeping, which manifested in two aspects: On the one hand, the structure of information communication presents the characteristics of decentralization [31]; on the other hand, the gatekeeper groups composed of individuals [32] and micro-organizations [33] constantly interacts, which leads to the overlap of multiple gatekeeping behaviors [34]. In the media ecosystem, gatekeeping should be regarded as a complex system which has the following three characteristics: (1) social media interacts with mass media [35]; (2) information flows fully through multiple channels [36]; and (3) many communicators interact with each other [37].

The gatekeeping process associated with media platform has attracted the attention of academia [38]. Scholars are not only interested in algorithms [39,40], but also in platform functions (e.g., hashtags [41] and trending topics [42]). Particularly, platforms (such as Facebook, Twitter, and YouTube) are regarded as Supra Gatekeepers in gatekeeping system proposed by Shoemaker. Supra gatekeepers with the decision-making power will completely remove contents which are deemed as disinformation. Thus, they are responsible for promoting the free flow of information and encouraging the free expression of opinions. However, the supra gatekeeper cannot exist independently apart from the user.
group because of two reasons: First, users form the micro elements in sub-systems of the supra gatekeeper system; Second, different users can rely on different social applications to communicate with each other [37]. Besides, Wallace’s digital gatekeeping model believes that the platform has a stronger role in the gatekeeping process and must be conceptually separated from the four different types of gatekeepers, i.e., journalists, algorithms, professionals, and amateurs [43].

In a nutshell, gatekeeping is a process. Lewin’s exposition of “gatekeeping” depicts the basic premise of the gatekeeping theory, i.e., contents that have passed through a series of “gate” areas are changed in this process. Based on these contents, the information finally presented to the audience is created. In fact, the gatekeeping model should be regarded as the modeling of the entire transmission process of social reality constructed by the media, rather than just a selection of a series of information [44].

2.2. Limitations of Modern Gatekeeping Models

In Lewin’s gatekeeping theory, except for the gatekeeper, the concept of “Gate”, “Force” and “Channel” are worth to pay attention. Specifically, gates combined with the channel are deep influenced by forces, and meanwhile determine which information will be selected. However, considering the multi-linear models (e.g., Shoemaker and Wallace) that emphasized a handful of powerful industrial actors in social media ecosystem, we summarize the limitations of existing gatekeeping models as follows:

• First, the existing gatekeeping models only focus on the platform, which ignore the entire transmission process of social reality constructed by social media. Especially the impact of the previous gatekeeping sections on information is neglected.

• Second, the relationship between different gatekeepers located in front of the platform have not been analyzed. The power of different gatekeepers thus cannot be distinguished. Therefore, neither the polarity nor the strength of force can be fully discussed.

• Third, the existing gatekeeping model lacks an effective explanation for the new changes in social media ecosystem, such as new gatekeepers (e.g., MCNs) and new gatekeeping relationships. In other words, changes in information flow channels cannot be reflected in original gatekeeping models. In fact, studies have identified MCNs as a significant component of the social media ecosystem [45] and media industries [46], which are not represented in the existing gatekeeping models.

3. MCN’s Gatekeeping Modelling

As depicted in Figure 1, the social media ecosystem consists of creator, users, entities (e.g., platform, MCNs) and the distributed channels from macro level. Actually, there are two kinds of content creators: On the one hand, some creators are unwilling to affiliate the particular one or more MCNs, which intend to produce and dispense their content through the other outlets, e.g., the social network sites. On the other hand, differ from the isolated atoms mentioned above, the content creators would like to gather around the certain organizations under the empowerment of MCNs, no matter they are in the mode of affiliate channel or Owned & Operated channel (O&O). Furthermore, the trend of multi-platform turns out to be irreversible and the users associated with the specific platform may also post the generated-contents by utilizing other platforms, i.e., creators are not limited to publish the generated contents on one platform any longer.
In order to respond to the new changes in gatekeepers and information flow channels in the social media era, we propose the ternary interactive gatekeeping (TIG) model as presented in Figure 2. As the important participants of content generation, the producers, MCNs and platforms form the three-cornered relationship during the social media gatekeeping process. Each of those participants has the ability to directly influence information, i.e., owning the gatekeeping power.

In terms of information flow as depicted in solid blue arrows, MCNs are able to push the selected contents to the affiliated channel and the action of gatekeeping can be operated during this step. The affiliate channels also receive information resource in an independent way, which are different with O&O belonging to MCNs. Actually, the relationship between MCNs and O&O is like TV stations and their channels. After the gatekeeping process, the selected information continuously moves to platform or affiliate channels for audiences. It is doubtless that platform’s routines influence gatekeeping behaviors of both MCNs and affiliate channel. As dotted in black arrows, it indicates the selection routines and need to consider when describing the relationship between the three subjects. To be an indispensable part, the MCN’s selection routines not only determine received information for O&O, but also affect the content production and distribution of affiliate channel.
We can see that the proposed TIG model has broaden the horizon to the gate before the platform by emphasizing the gatekeeping role of MCNs. In this sense, this model can be regarded as the supplement and amendment of the existing gatekeeping models. According to the definition by Donohue et al. [47], the gatekeeping behaviors can be divided into selection, shaping, display, timing, withholding and repetition. As an emerging gatekeeper, MCNs exhibit different gatekeeping behaviors in the process of content production and distribution, respectively. We further give the detailed descriptions for each steps of TIG model in Section 5.

4. Methods

In order to investigate the gatekeeping behavior of MCNs thoroughly, we conducted semi-structured, guideline-based interviews in the autumn of 2021. According to the guidance from Beitin [48], the interview partners were selected to represent meaningful cases. Specifically, the interviewees were recruited based on their professional backgrounds and social media experiences in the fields of content production and marketing, which are recognized as two vital factors. The qualified interviewee should already have establish the relationship or conclude a contract with MCNs more than 2 years. In addition to the three principals in TIG model, advertisers are taken into account because of their decisive influence on advertising content. The four key groups of stakeholders involved in gatekeeping are fully covered based on a pre-assessment process. Initially, a total of 21 interview requests were sent by e-mail, instant messenger (e.g., Wechat), and private messages on RED (an online lifestyle sharing platform in China, which now has more than 300 million users). As a result, 12 telephone and 3 personal interviews were obtained in Chinese language. We have followed the general ethical research principles. All participants in this research were voluntary and were fully informed before the interview to ensure anonymity and the purpose of the study.

As shown in Table 2, 15 representative interviewees are varied from the advertisers ($n = 4$), creators signed with MCNs ($n = 4$), staffs in MCNs ($n = 3$) and online platforms ($n = 4$), respectively. In this way, we aim to reveal the gatekeeping process of MCNs from the related entities in a comprehensive way. At the beginning of interview, all the interviewees would learn the background and purpose of this study. Meanwhile, the structure of the interview was interpreted. On average, it takes 37 min (variated from 26 to 56 min) per interview. During this period, the interviews were recorded and subsequently transcribed. Based on the principles of the qualitative content analysis [48], the interview analysis was carried out by using MaxQDA 2020 software. The specific gatekeeping behaviors of MCNs identified from the interview were aggregated, coded and analyzed.

| Sort     | Coding | Experience | Duration | Remark                     |
|----------|--------|------------|----------|----------------------------|
| Advertiser | A1     | 4 years    | 43 min   | Co-founder                  |
|          | A2     | 4 years    | 31 min   | Marketing Director          |
|          | A3     | 2 years    | 26 min   | Marketing Staff             |
|          | A4     | 2 years    | 32 min   | Entertainment Marketing Staff|
| Creator  | C1     | 3 years    | 53 min   | 32 k fans owner on RED      |
|          | C2     | 2 years    | 56 min   | 20 k fans owner on Bilibili |
|          | C3     | 2 years    | 34 min   | 1 m fans owner on Weibo     |
|          | C4     | 4 years    | 36 min   | 610 k fans owner on Weibo   |
| MCN      | M1     | 5 years    | 34 min   | Founder & CEO              |
|          | M2     | 4 years    | 41 min   | Director                   |
|          | M3     | 2 years    | 27 min   | Staff                      |
| Platform | P1     | 3 years    | 41 min   | Staff of TikTok            |
|          | P2     | 3 years    | 37 min   | Staff of TikTok            |
|          | P3     | 3 years    | 39 min   | Staff of TikTok            |
|          | P4     | 2 years    | 32 min   | Staff of RED               |
4.1. Interview Guideline

The semi-structured interview guideline is based on Morse [48], which is adjusted by the experiences to better fit and fulfill the research objective. The preliminary considerations regarding the behaviors are taken from the definition by Donohue et al. [47]. The interview guide covers three main themes subdivided into further specific questions (see Figure 3), and the specific questions are shown in the Listing 1. First, the interviewee’s profile and the relevant experiences were gathered; second, the structure of social media gatekeeping system and the MCNs’ role as gatekeeper were identified by asking the current state of social media ecosystem; third, the gatekeeping behaviors of MCNs survey was exhibited.

![Figure 3. Schematic of social media ecology.](image)

Because of the differences of the knowledge and perspectives between interviewees, the interview guideline for each of the four groups was respectively adapted. Generally speaking, the formulation of questions follows the principle of openness, allowing interviewees the opportunity to respond based on their professional knowledge and interests. All interviews were conducted by one researcher.

**Listing 1.** Semi-structured interview questions used in this study.

**Role and position of interviewee**
- Could you tell me about your personal situation?

**Narrative prompts**
- Could you tell me which sections are included in the content production and distribution process?
- Which institutions and individuals are involved?
- As far as you know, what role do MCNs play in this process?

**Gatekeeping behaviors of MCNs**
- In this process, what exactly did MCNs do?
- Will MCN directly participate in content creation?
- What is the basis for MCN to judge whether the content is appropriate?
- How to resolve the situation of disagreement during creation?
- Who has the final say in content production?
- How does MCN expand the scope of content dissemination?
4.2. Data Analysis

Data analysis was conducted rule-based according to Braun and Clarke [49]. First, the whole material was viewed. Second, an initial framework-driven code was developed by a deductive method. Third, based on Donohue et al. [47], the related codes were grouped together. Fourth, shared meanings were identified in the grouped codes and initial themes. Then, the third and fourth steps were repeated in order to review codes and themes. Finally, two themes were refined and the report was produced after translating Chinese original into English.

5. Results

Figure 4 depicts the overall dispersion of the codes among the groups. From the interviews, we can see that gatekeeping behaviors exist in the domains of Production (51%, 94 codes) and Distribution (49%, 91 codes). The top categories, Selection and Display, with a share of 24% and 45 codes, respectively, were the most frequently addressed subjects across all stakeholder groups. This indicates that in the production and distribution sectors, content selection and display are the most significant methods for MCNs gatekeeping. Respondents’ statements on Shaping (19%, 35 codes) and Repetition (19%, 36 codes) are subordinate, whereas Timing (5%, 10 codes) and Withholding (8%, 14 codes) are the least discussed gatekeeping behaviors.

![Figure 4. Distribution of the codes in total. (The total of the proportions of each part in the figure may not be equal to 100% due to rounding.)](image)

Figure 5 depicts the distribution of the codes based on the groupings of stakeholders polled. Observing the distribution of different groups, there is a variation in terms of focus among creators, MCNs, and advertisers on MCNs gatekeeping behaviors. Creators were more concerned with the production sector, whereas MCNs and advertisers were concerned with distribution. Platform respondents did not offer a clear preference.
5.1. Behaviors in Producing Section

In the proposed TIG model, it can be seen that both the O&O controlled by MCNs and independent affiliate channels are affected by MCNs’ gatekeeping behaviors. During the content production stage, the gatekeeping behaviors of MCNs contains the steps of selection, shaping and withholding, which are illustrated as follows.

- **Selection**: The important function of MCNs is to gather appropriate advertising resources for content creators. In other words, MCNs need to select the advertising information before the content creator. Only the selected online advertisements could be provided for the content creator, who continue to choose the desirable resources and then remix those resources in the following creative stage. Advertising docking is regarded as the most important function of MCNs by both MCNs and advertisers:
  - When it comes to commercial monetization, creators are often at a disadvantage. First, when negotiating with advertisers, creators may not be able to get a particularly good offer; second, it means that creators are likely to be scammed by advertisers, such as not paying money after cooperation, or quoting a relatively lower price because of their less understanding of the market, etc. In the cooperation with MCNs, these commercial problems can be solved. (M1)
  - MCNs are mainly to provide business docking for creators. Generally speaking, we are more inclined to cooperate with MCNs. Compared with creators, it is easier to connect with MCNs, and MCNs are also more contractual. (A2)

For the general contents, MCNs enable to offer the guidance for creators to produce the proper and target contents by clearly explaining the recommendation algorithms in respective online platforms or publishers. Both MCNs and creators pointed out MCNs’ advantage in understanding the platform algorithm:

- In fact, the platform has a lot of complicated rules and algorithms, and creators generally don’t have time to study these things, and they also don’t have much resource or ability. But as MCNs, we actually have more in-depth contact with the platform. We can also easily understand this information, then we can directly tell the creator what is the best thing to do, in other words, we can provide guidance on the rules of the platform. (M2)
-- Because recommendation algorithm in Bilibili (a famous video platform in China that now has around 360 million users) is very confusing, sometimes good shots are not recommended, but the random shots become popular. The stream will be more stable (after signing with MCNs), this is a benefit. (C2)

In addition, style consistency of MCNs is emphasized in selection routines. It means that the selected contents need to satisfy the characteristics or topics of each MCN.

-- Because our MCN mainly focus on travel photography, the video uploaded by creators should be relevant to our subject as consistent as possible. It is acceptable to post some other videos occasionally, but the traveling contents should account for the majority of creation. (M3)

• Shaping: MCNs integrate the related channels to produce customized content for users, such as AwesomenessTV’s cooperation with Subway and Hollister [50,51]. Considering the characteristics of different platforms, MCNs require creators to shape contents into the suitable forms. Specifically, MCNs will put forward specific requirements for content creation, including title, cover, copy-writing, style, script, etc.

-- For content, MCNs have scenarist-directors to help creators. Besides, operations staff can also provide help to creators from the aspects of person setting, content theme, and release frequency. It mainly depends on the status, stage and ability of creators. (M2)

-- For example, if a topic is presently popular on TikTok, we must collaborate with MCNs to engage and create relevant material for the platform. We will provide overall guidance, but MCNs will handle the narrative, copywriting, and so on. They will be able to film it when we evaluate and approve the script. (A4)

For example, in order to achieve relative better completion rate, the duration of each posting video is required to refine as shorter as possible [52]. In this way, those videos are suitable for the fragmented time of users during commuting and rest periods.

• Withholding: For the withholding step, MCNs were first requested to verify that the content was secure enough to pass the platform’s inspection. In our interviews, 11 respondents (including all members of the MCN and Creator groups) made remarks about “security” and “sensitive”. Furthermore, it is critical to determine whether the contents satisfy their development strategy or not. If not, the generated contents will be withholding by MCNs. Two of the creators interviewed shared their experience as follows:

-- A while ago, in the “Xi’an Metro” incident (In city of Xi’an in Shannxi province, a young woman who had a clash with other passenger was dragged off the carriage by the security guard when arrived the station, which was posted and sparked discussion online), I wanted to catch up with the hot spots. So I made a video to express individual views on that matter and sent it out without through the MCN. However, after few moments, MCN contacted me that this video was neither profound nor adequate, and suggested to delete it. I did. (C2)

-- I am not permitted to publish content that breaches the terms of the agreement. Furthermore, there are occasions when I want to post something more personal, which is not always permitted; after all, the account has a persona, and the stuff submitted must reflect that persona. (C3)

However, it is worth noting that poor quality is not necessarily the reason to withhold. For example, considering the commercial values and the further development of MCNs, the agencies impose restrictions on content producers to cooperate with niche brand through the terms of contract. It means that freedom of creation for content creators affiliating with the specific MCN organizations is actually restricted by the rules. Moreover, some of generated contents are not allowed to be distributed via the outlets of MCNs, even with the higher quality and full of exquisitely elaborate detail.

-- Sometimes I feel that I take a good shot, which people are good-looking and things are not bad. But the choreographer just said it is not good enough. From my perspective, this
comments is inappropriate. Actually some of contents he required to post is not quite effective. Considering the contract we signed, I still posted those contents. (C1)

Therefore, the withholding step usually happened within MCNs.

5.2. Behaviors in Distributing Section

For affiliate channels, MCNs obtain operating rights by signing contracts with content creators and then guides content release based on its own understanding of platform recommendation rules. As shown below, the gatekeeping behaviors of MCNs in the content distribution stage can be summarized as the steps of display, repetition, and timing.

• **Display and Repetition:** The results of interview coding reflect the high correlation between display and repetition. All 36 codes of Repetition are related to Display. In a sense, repetition is an important way to display content in social media. Words such as “stream” and “exposure” were frequently emphasized when respondents characterizing MCNs’ display and repetition, implying a greater display range and more repeats at the same time.

MCNs expand the dispense outlets of the contents by means of multi-platform linkage, mutual recommendation among different channels, and catering preferences of algorithms. To be specific, if the same contents are distributed on different platforms or channels, it will increase the exposure rate for the users. Besides, MCNs use more professional methods (e.g., channels co-recommendation, content co-production, and multiple subscriptions, etc.) to realize the repeated display on multi-screens and outlets for the purpose of the high media exposure. In addition, whether a content is recommended to more users depends on the results of the algorithm’s evaluation of its performance [52]. In this way, MCNs have put forward a series of specific requirements for content and account based on the recommendation rules of algorithm. For example, the characteristics of account information must be clearly described to reduce the labeling difficulty when operating the algorithm. Furthermore, MCNs also increase the exposure of content by purchasing promotional services.

– In terms of content promotion, there is an additional paid stream. To put it simply, it means to pay the money to get more clicks or views directly for the content, which the exposure will be increased with high probability. However, the number of interactions (such as comments, forwarding and “likes”) brought by those exposure measures can not be guaranteed by the platform. (M1)

Actually, according to interviews with Tiktok employees (P1, P2 and P3), the platform will give MCNs some stream discounts to ensure the stability of content production, which increases the ability of MCNs to display and repeat contents. Furthermore, other platforms (e.g., RED) take a more methodical approach.

– Other strategies, in addition to providing direct stream, include improving awareness on the homepage and search page. Furthermore, there are several accolades that may no longer be permitted. Previously, the platform included a list of institutions, and the top-performing MCNs will be highlighted here as well. (P4)

Furthermore, utilizing large accounts to introduce tiny accounts is a frequent way for MCNs to increase the display and repeat. As the most influential creators, C3 and C4 both stated that the MCN agency had requested them to forward content posted by other accounts:

– Once (MCN) determines that the material created by other bloggers is suitable, it will employ all resources, including not only its own company’s account, but also spend money to locate other company’s bloggers for reposting and promoting the content. This is known as utilizing large accounts to introduce tiny accounts. (C3)

– MCN has no specific criteria, but the group’s mutual forwarding of Weibo is essential. But they are all bad accounts, fools repost them. (C4)
• **Timing:** Regarding the publishing frequency, MCNs do not have too strict regulations, unless creators are absent for a long time:
  
  – *It is stated in the contract that I have to update twice a month, but I didn’t actually do it… MCN didn’t care about it either. Generally, as long as it is not a long-term interruption, MCN does not care.* (C2)

From the perspective of MCNs, they consider that creating high-quality content requires inspiration, which leads to uncertainty in the frequency of updates. Since an MCN company has a large number of signed creators, it is not very important to ensure the update frequency of each creator. Furthermore, based on the audiences’ usage habits and the analysis results of historical data, MCNs provide the vital guidance of the distribution time for their contract creators. For example, in the light of adapting users’ habits and obtaining higher like rates, MCNs recommend that short videos should be uploaded between 18:00–20:00 [52]. Normally, there are two highest viewing periods, i.e., noon and evening. On weekdays, people are more active from 19:00 to 23:00 when they get off work; on weekends, the time originally spent on work (9:00–17:00) is more likely to be used for entertainment [53]. It is worthy to note that, considering the various kinds of user groups with different schedules, if the target user group is special, such as middle-aged and elderly people, the above rules may not be applicable. Therefore, MCN will give the advice on the content release time based on the active time windows of users on specific channels. In this way, it allow more refined advertising of contents to reach the target users from all walks of life.

5.3. Routines of MCNs’ Gatekeeping

In a nutshell, gatekeeping in MCNs adheres to business logic, which states that whomever pays has the ultimate word and must not jeopardize the interests of other participants. On the one hand, in terms of decision-making authority, investors (dubbed “sugar daddy” in the business) have the final decision-making power, even if they are not actively involved in content creation. Investors are often advertisers, although they can also be platforms or MCNs. The size of the investor’s decision-making power corresponds to the quantity of investment.

• We should be given the script for the advertising video to evaluate. If it feels improper or the quality is low, as is the case today, they will be requested to resubmit the script. The creator can create without adhering to the script I provided, but it must be content that satisfies the standard level of his account. After the script is approved, the video will normally not be retaken, because the conditions of collaboration with creators often state that retakes will not be authorized after the script is approved, unless you pay more. (A3)

• We intend to name a variety show this year. Of course, the publicity will be handled by marketing firms. We, video platforms like iQiyi, and artists are all referred to as Party A, while the marketing firms are referred to as Party B. They are also, in general, MCNs. Of course, they might also locate a third party, such as MCNs or creators. (A1)

• In general, MCNs will provide some “fan headlines” assistance, or group internal accounts together on hot search. Of course, these are all expensive, and we must work with them to post some content. (C4)

Other parties’ interests, on the other hand, cannot be jeopardized. For the creator, the MCN cannot absorb the creator’s influence. For example, C4 refused the MCN’s request for a mutual push of accounts and eventually dissolved the contract with the MCN. The platform is more concerned with whether the content is safe enough than with its quality.

• The platform’s first priority is security. If part of the content uploaded by MCNs and bloggers is sensitive, it will not be examined because it is insufficiently safe. (P4)

This consideration of interest is sent to creators’ content production via MCNs. As previously stated, the interview findings suggest that the danger of content violation of
6. Discussion

6.1. Relationship with Platform: Catering and Colluding

Epstein believes that organizational values always take precedence over journalists’ personal values [54]. Shoemaker et al. also agree that the value of news is a much more important gate-keeping rule than that of the individual characteristics [55]. In the proposed TIG model, the gatekeeping standards of MCNs give priority to that of content creators. Although some MCN agencies claim that they are another form of media organization, they almost undertake little journalistic responsibility. As the profit-oriented agencies, MCNs’ criteria for selecting and shaping information depend on whether they can obtain more commercial benefits or not. Because almost all MCN agencies rely on advertising and E-commerce monetization to obtain revenue at present [10], the commercial interests of MCNs are largely linked to the stream they receive.

Algorithm-driven platforms have gradually become the “supra gatekeepers”, which dramatically change the gatekeeping process. According to White’s research on “Mr. Gates”, the editor’s personal likes and dislikes directly affect the results of the gatekeeping [23]. However, compared with the role in mass media and Internet era (e.g., represented by forums and portals), the editorial authority regarding to the gatekeeping process has already been eliminated in the era of social media. Since the distribution power of stream is controlled by platforms, MCNs must choose the contents that platforms prefer in order to obtain larger stream. Therefore, MCNs’ gatekeeping actually cater to platforms. The scale of content production seems to increase the power of creators, but it actually strengthens the authority of platforms.

We can see that the algorithm eliminates the differences in the characteristics, knowledge, attitudes and behaviors of the gatekeepers [44], and unifies the gatekeeping standards into a definite function. Although platforms do not control the content production process, they can undoubtedly shape the choice of content producers with the help of their distribution power [56] (e.g., offer discounts for MCNs’ paid stream). From this point of view, it is inevitable that MCNs, which are only oriented by commercial interests, will cater to platforms in the selection and shaping of the content. The common pursuit of commercial interests makes platforms and MCNs form a collusion in the process of content production and distribution, i.e., the only positive “force” that determines the specific contents pass through the “gate” area, which has the potential to attract large amount of stream. Through this kind of collusion, a win–win game has been realized. Both the MCNs and platforms achieve own profitability needs and gained more revenue, respectively [57].

6.2. Consequences of Content Production “Industrialization”: Information Overload and Simplification

For individual creators, MCNs cultivate the efficient and streamlined content production method to squeeze and replace the workshop-style content production manner. In this sense, content production on social media is undergoing a process of “industrialization”, where MCNs look like content factories. During this “industrialization” process, traditional individual creators either choose to be incorporated and enter the “factory” as workers, or go bankrupt under the dumping of content products. In fact, this “industrialization” process has reached a fairly high level. MCNs’ contents have accounted for more than 60% of stream on major social platforms [4]. Pew report showed that in the first week of 2019, among the 43,770 popular YouTube channels it identified, 10% of the popular channels posted 70% of their content, and the top 10% of new content views accounted for 79% of YouTube views that week [58].

On the one hand, the “industrialization” process has increased the efficiency and average quality of content production, which can improve the user experience in a sense. After the upgrade of the production model, creators can turn their ideas into reality with
higher funding and technical support. On the other hand, however, those upgrades thereby exacerbate information overload. For example, in the first week of 2019, only the identified popular channels posted nearly 250,000 videos with total duration of 48,486 h [58]. If 8 watching hours per day, 16.6 years will be spent for a person to watch those resources.

In addiction, the “industrialization” of content production has also greatly increased the standardization of content products. It is true that standardized products not only conductive to ensure the acquisition of stream, but also to some extent guarantee the quality of the content. However, unlike general industrial products, the value of information products lies in their originality, and homogenized content production cannot produce value that matches its quantity. The homogenized products provided by MCNs squeeze the information flow and repeatedly push to different platforms. While bearing the information overload, we also have to bear the lack of information diversity.

6.3. Limitation

There exist some possible limitations in this study. The proposed TIG model simplifies the actual situation and only reflects the sections of content production and distribution that MCN directly participates in. Therefore, considering from the vertical and horizontal directions, there may be some deviations. Vertically, the gatekeeping process is affected by many subjects at all levels, from individual to social system [30]. This model only considers the social organization level and does not discuss the impact of other levels on MCNs’ gatekeeping. Horizontally, some organizations that may have an indirect influence on MCNs’ gatekeeping have not been discussed. For example, traditional news organizations, which also provide information for users, may impact on MCNs gatekeeping in some indirect ways. Furthermore, the differences between MCN organizations were not discussed in the proposed TIG model. Therefore, the drawbacks in the horizontal and vertical directions need to be well investigated in future works.

7. Conclusions

In this paper, we have proposed the Ternary Interactive Gatekeeping (TIG) Model, which can be regarded as the supplement and amendment for the existing gatekeeping models. This model emphasized the gatekeeper role of MCNs, and thus broadens the research horizon in front of the platform. Through interviews with relevant practitioners, we confirmed that the gatekeeping behaviors of MCNs have been extracted from both aspects of content production and distribution. According to the interview results, selection is the most significant MCNs gatekeeping behavior throughout the content production stage, while it is display during the distribution stage. After the steps of selection, shaping and withholding, contents that satisfy the requirements of MCNs profit and development are chosen. Moreover, the spread effect can be greatly enhanced by the steps of display, repetition and timing. We found that the business logic seriously affects the MCN’s gatekeeping behavior through a description of the MCN’s gatekeeping routines. Specifically, the investor has the final decision-making power, but the interests of all parties cannot be jeopardized. Moreover, we have also discussed the relationship between MCNs and platforms, which emphasize that the gatekeeping power of social media giants have not been weakened but strengthened. Furthermore, the trend of “industrialization” in social media production has further squeezed the living space of independent creators and exacerbated information overload and simplification. On the whole, the proposed TIG model reflects the new changes in the social media ecosystem. We believe that the proposed TIG Model can provide a new perspective for a more accurate understanding of the information flow process of social media.

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References
1. YouTube. Multi-Channel Network (MCN) Overview for YouTube Creators. Available online: https://support.google.com/youtube/answer/2730705?hl=en (accessed on 10 April 2021).
2. Seibert, F. Next New Networks 7 March 2007–7 March 2011. Available online: https://fredseibert.com/post/9096023021/inspired-by-channel-102-and-julie-klausers-cat (accessed on 10 April 2021).
3. Alltheresearch. Global Multi-Channel Network (MCN) Market Ecosystem By Service & Tools, Applications (Music Channel, Game Channel, Lifestyle Channel, Movie Channel, Technology Channel, Fashion Channel and Food Channel) and Region—Forecast to 2027. Available online: https://www.alltheresearch.com/report/409/multi-channel-network-ecosystem-market (accessed on 29 August 2021).
4. Topklout. 2019 China MCN Industry Development Research White Paper. Available online: http://www.topklout.com/static/pdf/web/viewer.html?file=https%3A%2F%2Fimg.topklout.com%2Fwebsite%2Freport%2F5dc651b2e9712.pdf%3Frm%20Apr%2026%202020%201%3A38%3A26%20GMT%2B0800%20%28GMT%2B08%3A00%29 (accessed on 10 April 2021).
5. Iimedia. Research Report on Big Data Monitoring and Trends of China’s MCN Industry Operation 2020–2021. Available online: https://www.iimedia.cn/c1020/68425.html (accessed on 29 August 2021).
6. Lobato, R. The cultural logic of digital intermediaries: YouTube multichannel networks. Convergence 2016, 22, 348–360. [CrossRef]
7. Cunningham, S.; Craig, D.; Silver, J. YouTube, multichannel networks and the accelerated evolution of the new screen ecology. Convergence 2016, 22, 376–391. [CrossRef]
8. Weaver, M. White Paper: Welcome to the MCN Generation: A Guide for the Future of Video. Available online: https://info.piksel.com/welcome-to-the-mcn-generation-whitepaper-guide (accessed on 10 April 2021).
9. Grünewald, L.; Haupt, J.T. Value Creation on YouTube How Musicians, YouTubers and Commercial Networks Create Social, Cultural and Economic Capital. Manuscrit Présenté aux Vienna Music Business Research Days 2014. Available online: https://www.researchgate.net/profile/Lorenz-Gruenewald-Schukalla/publication/26739473_Value_Creation_on_YouTube_-_How_Musicians_YouTubers_and_Commercial_Networks_Create_Social_Cultural_and_Economic_Capital1/links/544eb910cf26dda089015c7/Value-Creation-on-YouTube-How-Musicians-YouTubers-and-Commercial-Networks-Create-Social-Cultural-and-Economic-Capital1.pdf (accessed on 10 April 2021).
10. Topklout. 2020 China MCN Industry Development Research White Paper. Available online: http://www.topklout.com/static/pdf/web/viewer.html?file=https%3A%2F%2Fimg.topklout.com%2Fwebsite%2Freport%2F5eb9043a258d5.pdf%3Frm%20Sat%2020Jul%201%3A38%3A26%20GMT%2B0800%20%28GMT%2B08%3A00%29 (accessed on 10 April 2021).
11. McAlone, N. This $650 Million Media Startup is on 31 Platforms, But Its CMO Says Snapchat Is the Most Innovative. Available online: https://www.businessinsider.com/awesomenesstv-b-j-marchetti-snapchat-youtube-2017-4 (accessed on 10 April 2021).
12. Jorion, T.; Stork, M. From Multi-Channel to Multi-Platform Networks: Content Moves beyond YouTube. Available online: https://medium.com/@18Havas/from-multi-channel-to-multi-platform-networks-content-moves-beyond-youtube-34e4b56bc5b0 (accessed on 10 April 2021).
13. Wikipedia. List of Multi-Channel Networks. Available online: https://en.wikipedia.org/wiki/List_of_multi-channel_networks (accessed on 10 April 2021).
14. Boyle, R. The Talent Industry, 1st ed.; Palgrave Macmillan: London, UK, 2018; pp. 131–157.
15. Budiono, T.; Triyono, A. YouTube Endorsement and Changes in the Web 2.0’s Advertising Industry. J. ASPIKOM 2020, 5, 338–351. [CrossRef]
16. Gardner, J.; Lehnert, K. What’s new about new media? How multi-channel networks work with content creators. Bus. Horizons 2016, 59, 293–302. [CrossRef]
17. Koch, C.; Lode, M.; Stohr, D.; Rizk, A.; Steinmetz, R. Collaborations on YouTube: From unsupervised detection to the impact on video and channel popularity. ACM Trans. Multimed. Comput. Commun. Appl. (TOMM) 2018, 14, 1–23. [CrossRef]
18. Grunewald, L.; Haupert, J.; Bernardo, F. Media-Intermediation & Careers on YouTube: How Musicians Get Empowered in Post-Industrial Media-Economies. Available Online: http://muke-blog.org/media-intermediation-careers-on-youtube-2665 (accessed on 10 April 2021).
19. Ilieva, R.; McPherson, T. Social-media data for urban sustainability. Nat. Sustain. 2018, 1, 553–565. [CrossRef]
20. Kuhlman, T.; Farrington, J. What is sustainability? Sustainability 2010, 2, 3436–3448. [CrossRef]
21. Lewin, K. Forces behind food habits and methods of change. Bull. Natl. Res. Counc. 1943, 108, 35–65.
22. Lewin, K. Frontiers in group dynamics: II. Channels of group life; social planning and action research. Hum. Relations 1947, 1, 143–153. [CrossRef]
23. White, D. The “gate keeper”: A case study in the selection of news. Journal. Q. 1950, 27, 383–390. [CrossRef]
24. Westley, B.; MacLean, M. A conceptual model for communications research. Journal. Q. 1957, 34, 31–38. [CrossRef]
25. Mcnelly, J. Intermediary communicators in the international flow of news. Journal. Q. 1959, 36, 23–26. [CrossRef]
26. Galtung, J.; Ruge, M. The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. J. Peace Res. 1965, 2, 64–90. [CrossRef]
27. Bass, A. Refining the “gatekeeper” concept: A UN radio case study. Journal. Q. 1969, 46, 69–72. [CrossRef]
28. Pearson, G.; Kosicki, G. How way-finding is challenging gatekeeping in the digital age. Journal. Stud. 2017, 18, 1087–1105. [CrossRef]
29. Robinson, G. Foreign news selection is non-linear in Yugoslavia’s Tanjug agency. Journal. Q. 1970, 47, 340–351. [CrossRef]
30. Shoemaker, P. Gatekeeping, 1st ed.; Sage Publications: Sauzend Oaks, CA, USA, 1991.
31. Tasente, T. Transformations of the political communication in social media era—from mediatization to decentralization. Acta Univ. Danub. 2014, 8, 16–24.
32. Groshek, J.; Tandoc, E. The affordance effect: Gatekeeping and (non) reciprocal journalism on Twitter. In Proceedings of the 7th 2016 International Conference on Social Media & Society, London, UK, 11–13 July 2016; Association for Computing Machinery: New York, NY, USA, 2016; pp. 1–10.
33. Forestal, J. Beyond Gatekeeping: Propaganda, Democracy, and the Organization of Digital Publics. J. Politics 2021, 83, 306–320. [CrossRef]
34. Thorson, K.; Wells, C. How gatekeeping still matters: Understanding media effects in an era of curated flows. In Gatekeeping in Transition, 1st ed.; Vos, T., Heinderyckx, F., Eds.; Routledge: New York, NY, USA, 2015; pp. 25–44.
35. Tandoc, E.; Vos, T. The journalist is marketing the news: Social media in the gatekeeping process. Journal. Pract. 2016, 10, 950–966. [CrossRef]
36. Hoskins, A.; O’Loughlin, B. Remediating jihad for western news audiences: The renewal of gatekeeping? Journalism 2011, 12, 199–216. [CrossRef]
37. Schoemaker, P. Gatekeeping and Journalism. Oxf. Res. Encycl. Commun. 2020. Available Online: https://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-819 (accessed on 10 April 2021).
38. Welbers, K.; Opgenhaffen, M. Social media gatekeeping: An analysis of the gatekeeping influence of newspapers’ public Facebook pages. New Media Soc. 2018, 20, 4728–4747. [CrossRef]
39. Westley, B.; MacLean, M. A conceptual model for communications research. Journal. Q. 1957, 34, 31–38. [CrossRef]
40. Peterson-Salahuddin, C.; Diakopoulos, N. Negotiated autonomy: The role of social media algorithms in editorial decision making. Media Commun. 2020, 8, 27–38. [CrossRef]
41. Potnis, D.; Tahamtan, I. Hashtags for Gatekeeping of Information on Social Media. New Media Soc. 2020, 22, 2748–2773. [CrossRef]
42. Yang, L. Changing Content Creation in the Age of Prosumer: From Individual to Multi-Channel Networks. Master’s Thesis, Queensland University of Technology, Brisbane City, Australia, 2021.
43. Yang, T.; Peng, Y. The Importance of Trending Topics in the Gatekeeping of Social Media News Engagement: A Natural Experiment on Weibo. Commun. Res. 2020. Available Online: https://journals.sagepub.com/doi/abs/10.1177/0093650220933729 (accessed on 26 September 2021).
44. Donohue, G.; Tichenor, P.; Olien, C. Gatekeeping: Mass media systems and information control. Curr. Perspect. Mass Commun. Res. 1972, 1, 41–70.
45. Gabriëls, J.F.; Holstein, J.A.; Marvasti, A.B.; McKinney, K.D. (Eds.) The SAGE Handbook of Interview Research: The Complexity of the Craft, 2nd ed.; Sage Publications: Sauzend Oaks, CA, USA, 2012.
46. Braun, V.; Clarke, V. Using thematic analysis in psychology. Qual. Res. Psychol. 2006, 3, 77–101. [CrossRef]
47. Donohue, G.; Tichenor, P.; Olien, C. Gatekeeping: Mass media systems and information control. Curr. Perspect. Mass Commun. Res. 1972, 1, 41–70.
48. Gabriëls, J.F.; Holstein, J.A.; Marvasti, A.B.; McKinney, K.D. (Eds.) The SAGE Handbook of Interview Research: The Complexity of the Craft, 2nd ed.; Sage Publications: Sauzend Oaks, CA, USA, 2012.
49. Braun, V.; Clarke, V. Using thematic analysis in psychology. Qual. Res. Psychol. 2006, 3, 77–101. [CrossRef]
50. Parkhill, R.; Pubentz, M.; Parkhill, D.; Kelley, J. Hollister Co. & AwesomenessTV Release New Series to Launch Partnership. Available Online: https://www.brandstorytelling.tv/single-post/2017/05/26/hollister-co-awesomeness-tv-release-new-series-to-launch-partnership (accessed on 10 April 2021).
51. Elliott, S. Subway Expands Its Slate of Original Web Shows. Available Online: https://www.nytimes.com/2014/06/03/business/media/subway-expands-its-slate-of-original-web-shows.html (accessed on 10 April 2021).
52. Zhang, J. The Algorithm of Short Video Content, 1st ed.; Posts & Telecom Press: Beijing, China, 2020; pp. 69–109.
53. Bytedance. 2020 Douyin Data Report. Available Online: https://lf3-static.bytednsdoc.com/obj/eden-cn/uj_shpjmmv_ljuhklafi/ljhwZthlaukjkulzlp/data_reports/2020_douyin_data_report.pdf (accessed on 10 April 2021). (In Chinese)
54. Epstein, E. News from Nowhere: Television and the News, 1st ed.; Random House: New York, NY, USA, 1973; p. 231.
55. Shoemaker, P. J.; Eichholz, M.; Kim, E.; Wrigley, B. Individual and routine forces in gatekeeping. Journal. Mass Commun. Q. 2001, 78, 233–246. [CrossRef]
56. Bell, E.; Owen, T.; Brown, P.; Hauka, C.; Rashidian, N. The platform press: How Silicon Valley reengineered journalism. Tow Cent. Digit. Journal. 2017. [CrossRef]
57. Mueller, B. Participatory Culture on YouTube: A Case Study of the Multichannel Network Machinima. Lond. Sch. Econ. Political Sci. 2014. Available online: https://www.lse.ac.uk/media-and-communications/assets/documents/research/msc-dissertations/2013/104-Mueller.pdf (accessed on 10 April 2021).
58. Kessel, P.; Toor, S.; Smith, A. A Week in the Life of Popular YouTube Channels. Available Online: https://www.pewresearch.org/internet/2019/07/25/a-week-in-the-life-of-popular-youtube-channels/ (accessed on 10 April 2021).