



Universitat Autònoma de Barcelona

**ADVERTIMENT.** L'accés als continguts d'aquesta tesi queda condicionat a l'acceptació de les condicions d'ús establertes per la següent llicència Creative Commons:  [http://cat.creativecommons.org/?page\\_id=184](http://cat.creativecommons.org/?page_id=184)

**ADVERTENCIA.** El acceso a los contenidos de esta tesis queda condicionado a la aceptación de las condiciones de uso establecidas por la siguiente licencia Creative Commons:  <http://es.creativecommons.org/blog/licencias/>

**WARNING.** The access to the contents of this doctoral thesis it is limited to the acceptance of the use conditions set by the following Creative Commons license:  <https://creativecommons.org/licenses/?lang=en>

**Glocalization, Neoliberalism and Reality  
Television: Social Media as the Second  
Screen of Reality Talent Competition  
Programs in China and Spain**

**Author: Shenglan Qing**

**Director: Emili Prado Pico**

**Ph.D. Thesis**



**Universitat Autònoma  
de Barcelona**

**Audiovisual Communication and Advertising**

**Faculty of Communication Studies**

**Universitat Autònoma de Barcelona**

**Bellaterra, 2022**



# Acknowledgment

This thesis is an inspiration for my life. I was born in Hunan Province, where one of the most famous broadcasting groups in China is located. In my early life, I witnessed the localization and national success of reality television formats in China. So, first, I would like to thank my home city, Changsha, Hunan. Then, I thank my mother, who encouraged me to explore computational methods and to achieve a Ph.D. degree, and my father, who is the source of power in my life.

Second, I am thankful for my experience in the study of Audiovisual Communication and Advertising at Universitat Autònoma de Barcelona and that in Barcelona, Spain, which opened a new dimension of the world, of global communication, of television, and of this comparative research, in my life. I would like to thank the director of my thesis, Prof. Emili Prado Pico, who has always been attentive, patient, and knowledgeable to help me and introduced me to the colleagues in the research group GRISS. I thank Dr. Celina Navarro Bosch, Prof. Núria García Muñoz, Prof. Matilde Delgado Reina, and Dr. Òscar Coromina Rodríguez.

I also thank my Chinese colleagues at UAB who accompanied my five-year doctoral study, collaborated with me in my research, and supported me during the pandemic: Dr. Weiqi Li, Dr. Yunong Liu, Dr. Xiaofei Hao, Zesheng Yang, Jingya Hao, and Yibo Gao. Thanks to everyone I met in Europe-China Dialogue in Media and Communication Studies Summer School (2018, Brussel), Digital Methods Summer School (2019, Amsterdam), Winter School of Computational Social Science (Barcelona, 2020), Digital Media Winter Institution (2020, Lisboa), Summer Institute in Computational Social Science (2020, Lisboa, online), and Informal Research Network (2021, online).

I also thank the SARS-Covid-19, which occupied 3 years of my 5-year doctoral study, pushed me to read theories in the quarantine, and led me to face the reality of myself.

Finally, thanks to myself, who has always tried to be honest with life and has created all the abovementioned experiences and this thesis in my life.

Life is more than neoliberalism.

This page intentionally left blank.

# Abstract

As a political-economic project, neoliberalism was localized in China and Spain during the same period at the end of the 1970s; as a form of television content, reality television gained popularity in China and Spain in the 2000s with the global flow of reality television formats. This is not a historical coincidence between China and Spain. Rather, it forms a part of the globalization process and the integration of both countries into the global neoliberal political and economic order, along with the localization of neoliberalism as a cultural hegemony in non-Anglo-American countries. Globalization is also related to the iteration of media technologies and business. China and Spain are located in different internet ecosystems—the ecosystem of China and the U.S.-based ecosystem—where Twitter and Weibo are two commercial microblogging services based on similar business models. Both serve as the second screen of television in each country.

This is a thesis about the feature of the glocalization of neoliberalism in the form of reality television and the interpellation of neoliberalism, as an ideology, in the discussions about reality talent competition programs on social media in China and Spain. We discuss the theories and socio-cultural backgrounds of this topic. In the empirical study, we use the application program interface and crawlers to collect data from Twitter and Weibo. A supervised machine learning-supported tool is applied on Python to realize the computer-assisted analysis of Tweets in Spanish and Weibo posts in Chinese.

The results show that the neoliberal values of competition, self-improvement, and individualism are manifested in the discussion about the reality of talent competition programs through the judgement of the talent and ordinariness of contestants. Moreover, by comparing two social media platforms as the second screen of reality television, we argue that Twitter affords the function of a forum in which audiences, official accounts of the program, and accounts that are not related to the program can participate relatively equally. On Weibo, the hashtag is not limited to a forum for users to talk about the program; it affords the function of an advertising campaign for the sponsor and the program in which ordinary users and audiences are engaged.

**Keywords:**

Reality television, social media, neoliberalism, computational methods, comparative studies.

# Contents

Acknowledgment .....	1
Abstract .....	3
List of Tables .....	iv
List of Figures .....	v
Chapter 1 Introduction .....	- 1 -
Chapter 2 Theoretical Framework .....	- 5 -
2.1 Television, social media, and reality television .....	- 5 -
2.1.1 Television .....	- 5 -
2.1.2 Social media .....	- 6 -
2.1.3 Reality television .....	- 9 -
2.2 Cultural globalization and comparative studies .....	- 11 -
2.3 Neoliberalism and reality television .....	- 16 -
2.3.1 Neoliberalism and neoliberal culture .....	- 16 -
2.3.2 Neoliberalism as a hegemonic ideology .....	- 20 -
2.3.3 Neoliberalism in reality television .....	- 22 -
2.3.4 Surveillance and reality television .....	- 26 -
2.3.5 Glocalization and alternative ideologies in reality television .....	- 28 -
2.4 Media rituals and reality television .....	- 32 -
2.4.1 Media rituals .....	- 32 -
2.4.2 Reality television as media rituals .....	- 36 -
2.4.3 Social media as a ritual space .....	- 38 -
2.5 Conclusion .....	- 44 -
Chapter 3 Media and Socio-Cultural Background in China and Spain .....	- 45 -
3.1 Media and socio-cultural background in Spain .....	- 45 -



3.1.1 Neoliberalism in Spain .....	- 45 -
3.1.2 Television system in Spain .....	- 47 -
3.1.3 Reality television in Spain .....	- 51 -
3.1.4 Twitter in Spain .....	- 55 -
3.2 Media and socio-cultural background in China .....	- 60 -
3.2.1 Neoliberalism in China .....	- 60 -
3.2.2 Television system in China .....	- 62 -
3.2.3 Reality television in China .....	- 69 -
3.2.4 Weibo in China .....	- 77 -
3.3 Conclusion .....	- 81 -
Chapter 4 Research Questions and Methodologies .....	- 85 -
4.1 Research questions .....	- 85 -
4.2 Two cases from Spain and China .....	- 87 -
4.2.1 Operación Triunfo (OT) .....	- 87 -
4.2.2 Young with You (YWY) .....	- 88 -
4.3 Distinguishing concepts in the inter-disciplinary field of computer science and cultural studies .....	- 89 -
4.3.1 Quantitative analysis of culture .....	- 89 -
4.3.2 Computational methods as an inter-disciplinary field .....	- 90 -
4.4 Data collection and limitations .....	- 95 -
4.5 Defining variables of content analysis .....	- 99 -
4.6 Supervised machine learning text analysis .....	- 103 -
4.6.1 Loading hand-coded data, cleaning data, and word vectorization-	103
-	
4.6.2 Training SML models and predicting the entire dataset .....	- 104 -
Chapter 5 Results .....	- 111 -
5.1 Comparing semantic meanings .....	- 111 -
5.2 Comparing sentiment meanings .....	- 118 -

5.3 Comparing two episodes of the same program.....	- 125 -
5.4 Discussion: responding to research questions .....	- 128 -
Chapter 6 Conclusion .....	- 135 -
References .....	- 145 -
Appendix .....	- 173 -
Spanish Semantic analysis .....	- 173 -
Spanish Sentiment analysis .....	- 178 -
Chinese Semantic analysis .....	- 185 -
Chinese Sentiment analysis.....	- 194 -

# List of Tables

<b>Table 1: Reality-game formats in Spain from 2000 to 2020. ....</b>	<b>- 54 -</b>
<b>Table 2: OTT commercial alliances in China.....</b>	<b>- 68 -</b>
<b>Table 3: Reality-game formats in China from 2000 to 2020.....</b>	<b>- 76 -</b>
<b>Table 4: Inter-disciplines of computational methods in humanities and social science. ....</b>	<b>- 92 -</b>
<b>Table 5: Raw dataset .....</b>	<b>- 96 -</b>
<b>Table 6: Cleaned dataset.....</b>	<b>- 98 -</b>
<b>Table 7: Numbers of analyzed Tweets and posts in each step .....</b>	<b>- 101 -</b>
<b>Table 8: Intercoder reliability, SML accuracies, and selected models .....</b>	<b>- 108 -</b>
<b>Table 9: Distributions of semantic categories in the entire dataset .....</b>	<b>- 113 -</b>
<b>Table 10: Distributions of semantic categories and comparison between verified and unverified users within the same platform .....</b>	<b>- 116 -</b>
<b>Table 11 : Comparison of semantic categories between the same user verification status in two different platforms .....</b>	<b>- 117 -</b>
<b>Table 12: Distribution of sentimental categories and comparison between verified and unverified users within the same platform .....</b>	<b>- 119 -</b>
<b>Table 13: Comparison of sentimental categories between the same user verification status in two different platforms.....</b>	<b>- 119 -</b>
<b>Table 14: Comparison between the episodes of OT .....</b>	<b>- 127 -</b>
<b>Table 15: Comparison between the episodes of YWY .....</b>	<b>- 127 -</b>

# List of Figures

Figure 1: “Transmission effect” of “#青春有你#” (#Young With You#) on Weibo (01/03/2020-31/05/2020).....	- 41 -
Figure 2: Number of posts captured on DMI-TCAT querying hashtags “#MasterChef or #MasterChef8” (15/04/2020-17/06/2020).....	- 41 -
Figure 3: Number of posts captured on DMI-TCAT querying hashtags “#OTGALA (1-6).” .....	- 42 -
Figure 4: Interface of the hashtag #OT2020 .....	- 58 -
Figure 5: Interface of OT’s official account on Twitter.....	- 59 -
Figure 6: Voting system and competitors’ rankings on Weibo .....	- 79 -
Figure 7: Interface of the hashtag #青春有你# (Young with You) on Weibo .....	- 80 -
Figure 8: Cross-validation .....	- 105 -
Figure 9: Process of predicting semantic meanings .....	- 106 -
Figure 10: Proportions of hand-coded results and SML results .....	- 109 -
Figure 11: Sentiment distribution of OT in each semantic category .....	- 121 -
Figure 12: Sentiment distribution of YWY in each semantic category .....	- 122 -
Figure 13: Word clouds.....	- 124 -
Figure 14: Hofstede’s dimensions of national culture: power distance and individualism.....	- 131 -

This page intentionally left blank.

# Chapter 1 Introduction

Reality television has been a popular form of television content worldwide since the 1990s. This form of television content can maximize audience rating and commercial income for media organizations while minimizing production cost. It dramatizes reality in the ways of exposing individual confrontation, humiliation, and competition. It has experienced the implication of new technologies in the media industry, from the hidden cameras in *Big Brother* to the convergence of mobile screens with television screens.

As a form of popular culture in commercial society, reality television demonstrates political power. The most well-known case is the host of the reality show *Apprentice*, Donald Trump, who became the 45<sup>th</sup> president of the United States. When Chinese television producers localized the Spanish format *Tu Cara Me Suena*, they self-censored and erased the elements of the ironic performances of politicians in the show. Meanwhile, reality talent competition has created idols and fandoms, which form potential power to affect political issues in China and many other countries.

Reality television is also culturally compatible in the globalized world. Formats such as *Pop Idol*, *Big Brother*, and *The Voice* have spread across different local television markets. A few years after *Operación Triunfo (OT)* premiered in 2001 in Spain, another show based on the same format, *Star Academy*, was launched in the television market of China in 2004. Reality television and formats have been localized in each television market with the global trade of television format and commercialization of television systems. The global success of reality television has also normalized the culture of neoliberalism and surveillance in each local market.

Social media platforms, such as Twitter and Weibo, have been widely used as the second screen of television, where producers promote their programs and

audiences consume content and make comments. The information generated on social media has provided resources for industry and academic research. Owing to inter-discipline collaborations among computer science, social science, and humanities, new methods, such as digital methods and computer-assisted content analysis, have been developed to facilitate research in communication and media studies. This thesis combines cultural studies with computational methods by applying supervised machine learning (SML) algorithms on Python to facilitate content analysis of Chinese and Spanish posts on social media.

This Ph.D. thesis focuses on neoliberalism in reality television and social media in China and Spain. This thesis aims 1) to identify the features of glocalization in reality television formats under the economic order of neoliberalism in China and Spain; 2) to identify the role of Weibo and Twitter as the second screen of reality television programs in Chinese and Spanish markets; and 3) to identify the presence of the features of neoliberal ideology in discussions about the genre of reality talent competition programs on social media in China and Spain.

In Chapter 2, we present cultural studies conducted in the background of globalization, as well as the definition of television and social media. In addition, we review previous debates conducted on neoliberalism and governmentality from the viewpoints of Foucauldian tradition and Marxist criticism of neoliberalism. We also review the debates on neoliberalism and other ideologies in reality television in the context of glocalization. Based on the theory of media rituals, we provide a theoretical conceptualization of the role of social media, as the second screen of television, in the media rituals created by reality television.

In Chapter 3, we take neoliberalism as a political and economic order proposed in the early 20<sup>th</sup> century when capitalist countries were facing challenges from the Marxist movement. With the ending of the communist era in China and dictatorship in Spain, both these countries experienced political and economic reforms in the 1970s and have adapted to the global order of neoliberalism. Even though neoliberalism was challenged because of the economic crisis in Spain, commercial trade has been generally realized under the intervention of the Chinese government. In this chapter, we also briefly review the television systems and the popular reality television programs in both television markets. By

analyzing financial reports, industry documents, and interfaces of platforms, we analyze the role of Weibo and Twitter as the second screen of television in both markets.

In the empirical part, Chapters 4 and 5, we analyze the text content related to two reality talent competition programs on social media in China and Spain. Through the empirical analysis, we demonstrate how neoliberalism is framed through reality television on social media in China and Spain. In Chapter 4, we discuss the tradition of computer-assisted analysis and the theories that support the combination of computational methods and cultural studies. Then, we present the processes of data collection, defining units of the content analysis, as well as the process of manual analysis and computer-assisted analysis, through SML on Python.

Chapter 5 presents the results of content analysis. The analysis not only compares discussions on social media between two cases from China and Spain on Weibo and Twitter but also compares verified and unverified users, as well as different episodes in the same program. In the discussion section, we explain the analytical results with socio-cultural and technological factors in China and Spain. The results also show the marketing strategies of these two television programs on social media, and how discussions on social media vary according to the content on television. In Chapter 6, we provide a conclusion and theoretical reflection of this thesis.





# Chapter 2 Theoretical Framework

## 2.1 Television, social media, and reality television

### 2.1.1 Television

The notion of television has experienced continual changes since its emergence, from analog to digital and from narrowcasting to broadcasting to post-broadcasting. Different theories on television studies have been proposed, while the notion of television is also continuously changing (de Valck & Teyrlings, 2013; Gray & Lotz, 2018). Cultural studies have suggested understanding the commercial and political meanings and values programmed in the television flow (Williams, 1975). Television has accelerated and expanded the process of cultural transmission by “a cluster of institutions concerned with the commodification and extended circulation of symbolic forms” (Thompson, 1990, p. 215). The values and meanings are encoded in the discourses through the process of production, which is related to the institutional and social structure; these values and meanings are decoded by audiences in the forms of their ideological, emotional, cognitive practices, and discourses. In this process, television is a symbolic vehicle that circulates the production and consumption of meanings and reflects power relations in society (Hall, 1980). Some scholars (Hill, 2005; Livingstone, 1998; Skeggs & Wood, 2012) have focused on audience studies and shown that audiences are not limited in receiving information passively.

Television can also be studied with the institutions, markets, and political and economic systems that support it and its influences in shaping local and global social orders (Calvert et al., 2005; Curtin, 2009; McLuhan et al., 1968). Foucauldian scholars have considered television as a cultural technology of self-

actualization that is integrated into the logic of governmentality in civil society (McCarthy, 2007; Ouellette & Hay, 2008). In recent years, the emergence of internet-based video-on-demand platforms has been considered a new form of television. In addition to the traditional approach of television studies, the platformization of cultural production and distribution provides a new logic to understand television nowadays (Coromina et al., 2020; Navar-Gill, 2020; Nieborg & Poell, 2018; Prado, 2017; W. Y. Wang & Lobato, 2019).

### 2.1.2 Social media

Platformization affects the operation of the cultural industry through the penetration of economic, governmental, and infrastructural extensions of digital platforms (Nieborg & Poell, 2018). van Dijck et al. (2018) defined the platform as “a programmable architecture designed to organize interactions between users” (p. 19). Platforms are not necessarily social media, while social media are included in internet-based platforms. Social media platforms such as YouTube enable individuals to home-cast their audiovisual content (van Dijck, 2013b). Internet-based video-on-demand platforms, such as Netflix, create new business strategies for professional producers (Wayne, 2018). Bruns (2008) combined two traditional roles in the cultural industry: those who produce information and content and those who consume them. They proposed the notion of produsage to describe the endless content-producing-consuming process and collaboration on social media. Gillespie (2010) considered social media platforms as cultural intermediaries, the business of which is oriented by users, advertisers, and professional content providers. Nieborg and Poell (2018) argued that platformization shapes production and distribution in the cultural industry. This is a process that involves an interplay among the distribution, datafication, and monetization of content on the platforms and finding, targeting, and monetizing audiences on the part of content producers. Jenkins and their co-authors proposed an optimistic view on the convergence of new media technology, which can empower audiences and fandom (Jenkins, 2006; Jenkins et al., 2013). In

contrast, other scholars have provided critical views on new forms of exploitation of labor and data, which contribute to television production, industries, and authorities (Andrejevic, 2004, 2007, 2011; Carpentier, 2011).

Social media are recognized as internet-based channels that enable individual interaction, participation, user-generated content, and mass communication in real time or asynchronously (Carr & Hayes, 2015; Kaplan & Haenlein, 2010; Obar & Wildman, 2015; van Dijck et al., 2018). Although the Internet has changed the forms of communication, this does not mean that social media are an idealist public sphere or neutral technology. Nowadays, social media are mainly developed and managed by commercial corporations with the intervention of political authorities. Social media construct hierarchical structures that are normalized in the practices of their mechanism (van Dijck, 2013a).

van Dijck and Poell (2013) proposed four principles of social media logic: programmability, popularity, connectivity, and datafication. Programmability, which is generated from Williams' theory on programming television flow, indicates social media platforms' ability to provoke users' creativity and communication, where users can influence information flow on social media platforms through their interaction within the coding environment. Popularity refers to how social media can create a system to filter users on the platform by their level of popularity, although social media are open to everyone. The system of popularity is managed through two ways of interaction: algorithms can automatically distribute traffic and users' activities can lift visibility. Connectivity introduces "a strategic tactic that effectively enables human connectedness while pushing automated connectivity" (p. 8). This means that social media enable not only networks among humans but also the networks of customization and automated personalization. Datafication means that, compared to mass media, social media are not limited to quantifying users' activities, but the quantified data can also build into an architecture of platforms, which allow analyses of public opinions, sentiments, and other human behaviors.

Fuchs (2014) argued that in the capitalist world, social media face 1) the economic antagonism of users' interests in data protection and regulation and corporations' interest in data commodification and transparency; 2) the political antagonism between civil society's interests to protect communication from powerful institutions' access and power holders' interest to maintain power structures; and 3) the civil society's antagonism between creating public spheres on social media and the corporative and political colonization of the public sphere.

Social media afford the role of the second screen of television, which generates new economic logic and political activities (Avanesi, 2018; Gil de Zuniga et al., 2015; Jorge et al., 2018). Lee and Andrejevic (2013) defined the second screen as an interface synchronized with television that "enable(s) real-time monitoring, customization, and targeting envisioned by the developers and promoters of the interactive commercial economy" (p. 41). They indicated that the configuration between television and the second screen "relies on several interlocking strategies, including the mobilization of the promise of interactivity for convenience and participation, and attempt to reverse the time-shifting tide and resuscitate real-time viewing" (p. 41).

With the incorporation of social media into television viewing, two notions have emerged: social television and social audiences. van Dijck and Poell (2015) argued that the attachment of "social" as an adjective to television means "braiding the conversational and creative strengths of network platforms with the mass entertainment and audience engagement abilities of broadcast networks" (p. 149). Media institutions can organize the practices of commentary by manipulating the visuality of information. The commentary, thus, has become an important and complex media-related practice in recent years, not only for media economics but also for the sociology of media (Couldry, 2012, pp. 85-86).

Hill (2019) proposed the concept of roaming audiences to describe the multitasking process. "As audiences are roaming around entertainment content, the pathway and tracks they make are shaping their experience of television and related social media" (p. 35). The symbolic power of roaming audiences is

connected to social imaginary and legitimacy (Taylor, 2002). Even in multitasking viewing, “the business model for television is to restrict access and move across public service and commercial platforms and across national television and transregional content” (Hill, 2019, p. 34). Audiences are restricted by law and regulations within the context of information contents, which provide them with an imagined collective social life.

After reviewing principal definitions and theories of television and social media, we define television as a cultural medium (Gray & Lotz, 2018) always supported by new technologies, around which values and meanings are encoded and decoded and through which social orders are organized and affected. In this thesis, social media are considered the second screen of television that maintains the symbolic power of television in the age of the Internet through the interconnection of producers, audiences, platforms, and contents.

### 2.1.3 Reality television

Reality television has become a global tendency since the 1990s. It dramatizes reality in the ways of exposing individual confrontation, humiliation, and competition; proposing a voyeuristic angle through hidden cameras; and provoking public discussion and participation by the internet. Reality television has been criticized for exposing human traumas, criminal elements, and sufferings in narration (Biressi & Nunn, 2005). These elements can provoke audiences’ psychological tension, which helps to achieve high audience ratings (Prado & Delgado, 2010). This television phenomenon has recently gained success worldwide. There are different typologies and names to describe components and sub-genres in these television programs, such as factual entertainment, reality shows, reality games, docu-series, docu-soap, docu-games, game-docs, and makeover shows. Global formats, such as *Big Brother*,

*Star Academy*, and *The Voice*, have flown into different television markets as products, which has created a production model that obtains high audience ratings and advertising income at low costs (Deery, 2015; Prado & Delgado, 2010). Owing to this investment-benefit favorable model, advertisers began to integrate their brands into the narration and the “lifestyle” created by reality television (Göttlich, 2010), which has innovated advertising forms in television industries (Deery, 2004; Delgado et al., 2016; Hudson & Hudson, 2006; Jenkins, 2006). The popularization and commercialization of reality television have redefined the relationships among audiences, sponsors, and production in recent decades.

Skeggs and Wood (2012) followed the theories of Ouellette and Hay (2008). They believed that reality television intends to visualize the value, the psychic property of the self, and the moral interiority that the audience contains. They considered that reality television is ideological because it implements ideologies in the process of an engaging audience consistently through the dramatized content, which evaluates their daily life and legitimates specific values. The effect of the program is a complicated link that realizes the ideological and pedagogical functions of reality television, which can “bring power into effect through moral authorization” (p. 184). Affective reaction corresponds to audiences’ social class as well as the cultural and material resources they can access. People can generate and defend values for themselves against judgment through the working of effect. However, they did not agree that commercial television can achieve the mission of civic education and its commercial aims together. They suggested a contradiction between purchasing audience profits and governmentality. Viewers sometimes refuse to fit in the model proposed by authorities rather than defending and revalidating their own culture, experience, and value when they are watching reality television.

Reality television has received many negative critiques in the past decades, while audiences are still engaged in this genre in both negative and positive ways. Hill (2019) illuminated the semantic rhymes of engagement, which suggest “a coming together, bursts of positive and negative energy, and a pulling apart” (p. 59).

These rhymes imply interconnections among audiences, producers, and media, which means that audiences can be both positively and negatively engaged in or disengaged from a program. Hill (2019) proposed a perspective different from the anti-social feature of reality television. They emphasized the educational function of reality television in public broadcasting services and focused on public service and the commercial setting in three European countries (Britain, Denmark, and Sweden). Through interviews with audiences and producers of *MasterChef*, Hill proved that this format transmits significant pro-social values in the three markets in Europe. In the case of *MasterChef*, Hill suggested that audiences can be positively engaged in reality television through the competition, cooking skills, and food culture in the format and, at the same time, they bring the food skill and culture into the cooking practice of their daily life.

In reality television, producers often focus on casting performances of participants and balancing their talent and personalities. Hill (2019) observed that audiences are engaged in the show by criticizing the performances of contestants during the liveness, on social media, or at home, and by seeking public and private personas of these casts. Skeggs and Wood (2012) argued that the subtle and intimate nuances of behavior are exaggerated in reality television, which increases the significance of these performances. They found that audiences and participants of reality television, from different social classes, react differently to cultural value and economic value when watching reality television.

## **2.2 Cultural globalization and comparative studies**

Globalization makes comparative media and cultural research increasingly significant (Livingstone, 2003). Global cultural flow is a crucial element related to



the globalization issue. Marshall McLuhan (1967) described the “global village” with the development of broadcasting technologies, which extend human activities and obscure the boundaries of “time” and “space.” Instead of considering globalization as a tendency of convergence and homogenization, it is better to understand it as a concept that refers to the connectivity, networking, and disjuncture of the relationships among nation-states, where international organizations and international trade play crucial roles in the free market (Appadurai, 1990; Castells, 2008; Robertson, 1990; Tomlinson, 1999). Globalization is a long process that can be traced back to the mid-18<sup>th</sup> century, closely related to modernization and post-modernization and shaped by the development of technologies (Pieterse, 2019; Robertson, 1990). The cultural dimension of globalization reflects the complex connectivity in which social institutions are integrated and the individual or collective way in which the institutions work (Tomlinson, 1999). The flow, integration, conflicts, and imperialism of culture and ideologies occur among different nations in the context of globalization (Wallerstein, 1990).

Appadurai (1990) indicated the co-existence of disjuncture and homogenization. The author stated that cultural globalization is realized using different instruments of homogenization, including advertising techniques, linguistic hegemonies, and clothing styles. These instruments are embedded into local political, economic, and cultural contexts and are converted into heterogeneous dialogues in which national states play essential roles. Appadurai (1990, 1996) indicated that the disjuncture and contest occur in five scopes of the imagined globalized world: ethnoscaples, mediascaples, technoscaples, finanscaples, and ideoscaples. Ethnoscaples refer to the movement of humans, such as tourists, migrants, and refugees, which affects the international political situation. Technoscaples refer to the configuration of technology and the fact that technology speeds over the world, driven by political or economic factors. Finanscaples are related to the global flow of capital and global trade. Ideoscaples and mediascaples are more related to the “imagined world.” Mediascaples blur the boundaries of reality and fiction and create an “imaged world,” depending on the content models, hardware audiences, and those who control media. The media create complex repertoires of images, narratives, and ethnoscaples for audiences. Ideoscaples are also connected to

imagination and is more directly related to politics and the power of states. They also lead to different reading and understanding of texts of media contents and the variation in semantic meanings in different contexts of nations and traditional cultures. The globalization and “deterritorialization” of media and ideologies rely on the deterritorialization of technologies and finances in the form of the global flow of commodities, corporations, and persons.

Globalization and cultural globalization are widely criticized as “Westernization,” “Americanization,” “media imperialism,” and “cultural imperialism.” Media imperialism has been understood as the invasion of media content, ownerships, norms, commercialism, and capitalist culture from Anglo-American countries to other countries (C.-C. Lee, 1980). Galtung (1990) argued that globalization is structural violence in which center countries effectively control periphery countries at the material and symbolic levels. Cultural violence legitimizes such structural violence in the symbolic sphere in which religion, ideology, language, art, and other symbolic factors are located. Herman and McChesney (1997) indicated that globalization occurs in the dimension of media with the construction of global media corporations from the United States and other developed countries endorsed by the ideology of the free market. It is criticized as a hegemonic culture produced by international financial infrastructures (Gramsci, 1992; Hall, 2011).

However, this phenomenon is more complex than the imagination of a one-directional cultural flow from developed to developing countries. García-Canclini (2001) focused on the hybrid culture generated through the process of globalization and modernization in Latin America. The concept of hybrid culture is not limited to hegemony or resistance to the global cultural flow; rather, it is about heterogeneity and the mix of distinct cultural flows in the modernized world. The folkloric and traditional cultures do not disappear in the process of modernization. Instead, they hybridize with the hegemonic culture in the form of popular culture, which is produced in the industrialization process. Tomlinson (1999) also suggested that cultural globalization is a process of cultural mixing and hybridization that results from the process of modernization. Meanwhile, the

author emphasized that the dominant culture flows from developed countries to developing countries. Robertson (2012) indicated the duality and tension between homogenization and heterogenization, globalization and localization, and universality and particularity. The author believed that mediatization and international communication occur in the form of globalization or glocalization without denying national states and their ideologies. Thussu (2006) proposed the concept of flow and contra-flow in the global struggle in communication. The author believed that the hybrid culture consolidates the hegemony of Western and American cultures. The term “soft power” refers to a type of power out of the military and economic power that can reach a co-option result in the manner of seduction and attraction (Nye, 2004). It has been proposed by U.S. scholars and widely used in political and academic discourses in China as a power of contra-flow of hegemony (M. Li, 2008). The term “soft-power” is also applied in political communication, in many countries, for governments managing public relations and for enhancing their power in international communication (Thussu, 2019).

Castells (2008, 2013) proposed that the global public sphere (Habermas et al., 1974) is constructed by a network of nation-states. In the global public sphere, distinct voices and values, which represent different powers, communicate and struggle. Castells (2013) concluded two major bipolar axes in cultural globalization: “one is the opposition between globalization and identification and the cleavage between individualism and communalism” (p. 186). The author suggested three levels to observe the global culture (p. 188). First, “the consciousness of shared destiny” of the world, like environment or human rights. Second, “there is a multicultural global culture characterized by the hybridization and remix of cultures from different origins,” like the popular culture spread throughout global social media like YouTube (p. 188). Third, the culture of consumerism is a fundamental layer of cultural globalization. Castells suggested that the global public sphere is constructed by building communication protocols in a network society where audiences are fragmented. Communication protocols are a group of transversal practices, as well as “their supporting organizational platforms,” that enable the spreading and sharing of meaning “between the cultural fields of the global networks society” (p. 197). The protocols, according

to Castells, mainly rely on commercial strategies and the construction of common media languages, common cultures, and networked digital hypertexts.

H. Zhao and Liu proposed to deliberate the comparability and fundamental similarities under the surface of different objects to be compared as well as methodologies in comparative studies (2020). There are two ways to conduct comparative cultural studies: emic and etic. Emic is an insider perspective for investigators, which encourages in-depth and detailed qualitative descriptions. In contrast, etic refers to an outsider perspective for one or more cultural contexts, which needs external criteria, often quantitative, to compare different cultures (de Mooij, 2014; Young, 2012). Hofstede's national cultural dimension has been widely applied in comparative studies to understand cultural activities in different countries in commercial society (de Mooij & Hofstede, 2010; Hofstede, 2001).

Hepp and Couldry (2009) rejected the functionalist view of "container thinking" in global cultural studies, which considers nation-states as the "reservoir of society" in which cultures are contained and defined. Rather, they suggested seeing culture as "thickenings" in the trans-local process, which enable understanding of both territorialization and deterritorialization of culture in globalization, based on the transcultural approach of global media cultural studies. Transcultural comparative research relies on the reality of global media capitalism, which means that global media communication is a process of "exchange of economic good" and the political media system profoundly influences the territorialization of global cultures. Cultural thickenings can be territorialized with both national cultures and "transgress states and their territories" (p. 17). This term also emphasizes the cultural context and reciprocity of various cultures. This means that a type of culture can both influence other cultures and be influenced by them (Hepp, 2013).

Reality television is a media cultural phenomenon that primarily became popular in the United States in the 1990s and was rapidly spread among global television industries in the 2000s (Prado, 2002). It corresponds to the protocols of communication, which enable the global sharing of television genres and cultures

(Castells, 2013; Miller & Kraidy, 2016). A major discussion focusing on reality television is that this form of popular culture has gained popularity with the global flow of neoliberalism (McCarthy, 2007; Ouellette & Hay, 2008; Redden, 2018). Although some scholars have doubted the dominant feature of neoliberalism in reality television (Couldry, 2010; Miller & Kraidy, 2016), it is an essential topic for studying cultural globalization. In this research, we consider reality television as a global cultural phenomenon that occurs along with the global flow of neoliberal culture. It deterritorializes originally from Anglo-American countries and territorializes in different countries globally. Considering the idea of cultural thickenings (Hepp & Couldry, 2009), etic research is applied to the study discussion about reality-game shows on social media in China and Spain.

## **2.3 Neoliberalism and reality television**

### 2.3.1 Neoliberalism and neoliberal culture

Neoliberalism is a reprogrammed economic–political initiative of liberalism (Foucault, 2008). The development of neoliberalism can be traced back to the Great Depression in the 1930s, when classical liberalism was facing a crisis. After the Second World War, the neoliberal idea gained a clearer shape (Davies, 2014). The Chicago School of Economics developed the economic concept of neoliberalism and criticized it as “economic imperialism” (Davies, 2014; Nik-Khah & van Horn, 2012). Foucault’s theory of biopolitics and governmentality is one of the most influential theories on neoliberalism because he expanded the economic conception to the political field.

Instead of seeing neoliberalism as an ideology, Foucault (2008) focused on the political–economic field, considering neoliberalism as an art of government. The author discussed history and the reason for both German neoliberalism and

American neoliberalism. According to Foucault, “the problem of neoliberalism is rather how the overall exercise of political power can be modeled on the principles of the market economy” (p. 131). In the neoliberal society market, competition and enterprise are the formative power. According to Foucault, competition, promoted by neoliberalism, is a primitive and natural property of the market economy. Unlike the political principle of laissez-faire, neoliberalism provides guarantees and limitations, through juridical rules and the privatization of insurance, to reach the aim that the economic process does not produce social distortion. Multiple forms of enterprise are unities through which individuals connect to the social fabric. In the form of American neoliberalism, individuals are not alienated subjects but rather an investor or entrepreneur for oneself (Flew, 2012; Foucault, 2008).

Flew (2012) concluded the core elements of Foucault’s theories on governmentality: 1) emphasis and generalization of the enterprise form among the whole society, 2) legalization and regularization on promoting competition; 3) stimulation of economic activities and market economy; 4) “Policy activism that begins from the premise that markets and competition are not ‘naturally’ grounded in society, but which require a kind of ‘positive liberalism’ to continually promote and stimulate them” (p. 25); and 5) recognition on state power, which is supposed to be limited by judicial activism.

Harvey’s (2005) study of neoliberalism is also influential. According to Harvey, neoliberalism is first a political–economic notion, which means “human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free market, and free trade” (p. 2). In the globalized world, most states in the world have adapted themselves, voluntarily or involuntarily, to neoliberalism.

The state is responsible for guaranteeing these freedoms but with minimum intervention in the market by protecting individual private property rights, the rule of law, and institutions for the free market. The rules of neoliberalism protect both the freedom of individual humans and the freedom of individual enterprises.

Private enterprises are the origin of innovation and the creation of social wealth. The states' control of the economy and market is deregulated, and competition "is held to be a primary virtue" (Harvey, 2005, p. 65). These neoliberal ideas can improve productivity and efficiency and reduce costs, which impact both commodity prices and tax burden. In the context of the free market and self-entrepreneurship, the responsibility taken by each individual is emphasized, which expands to the fields of welfare, education, health, and pension. "Individual success or failure are interpreted in terms of entrepreneurial virtues or personal failing (...) rather than being attributed to any systemic property (...)" (pp. 65-66).

The free market and competition also provoke controversial issues, such as monopoly power, market failures, competition failures, and asymmetric power. Harvey (2005) thought that the development of technologies is closely related to entrepreneurship in the neoliberal market because competition leads enterprises to seek more effective production and more effective organizational forms. Controllers of new technologies can "reshape common sense to their pecuniary advantages" through their innovation and activities" (p. 69).

Principally, neoliberalism does not support the nation but rather the idea of a state. However, Harvey (2005) indicated the long-term coexistence of neoliberalism and nationalism. In the process of "neo-liberalization" globally, nationalism has revived. Nation-states are the main individual participants in global economic activities and other international competitions. Neoliberalism needs support from nationalism to survive. The competitive environment, which produces a struggle between winners and losers, is a resource of national pride and national soul.

According to Treanor (2005), neoliberalism is not only economics but also a social and moral philosophy, which is most visible in attitudes toward individuals, employment, and society. Neoliberalism is applied as a market metaphor for understanding the world. Neoliberal society is a network society with an expansion of interactivity. The liberal claims of equality and access are just a part of neoliberalism, while the neoliberal advocates creating interlinks with other

society members. Compared to liberalism, competition is a virtue ethic promoted by neoliberalism. Treanor (2005) argued,

Neoliberal values tend to believe that humans exist for the market, and not the other way around: certainly, in the sense that it is good to participate in the market, and that those who do not participate have failed in some way. In personal ethics, the general neoliberal vision is that every human being is an entrepreneur managing their own life, and should act as much. Moral philosophers call this a virtue ethic, where human being compare their actions to the way an ideal type would act—in this case, the ideal entrepreneur. (p. 63)

Neoliberalism encourages each individual to improve their employability and maximize their advantages in the labor market. The idea that each individual can be an entrepreneur is different in neoliberalism than in liberalism. Liberalism never assumes that an individual can manage to run an entire small business, such as a one-person start-up, while neoliberalism encourages states to enact policies to encourage entrepreneurs (Treanor, 2005).

Treanor (2005) also indicated that neoliberalism is associated with the Anglo-American culture and the English language, which facilitates free trade and spreads neoliberalism, as an ideology, globally. In the neoliberal world, “nation-states still dominate global social and economic structures.” The nation exists as a business firm that is “selling itself as an investment location, rather than simply selling export goods” (Treanor, 2005, para 77). Treanor did not agree with the “globalized” logic in the globalization claims, emphasizing the role of a nation-state in the globalized world. The author believed that the notion of “globalization” takes each state as a nationalist island. The order of states is already global before the intensification of global flow, which does not undermine the nation-state. Instead of considering globalization as a reality, Treanor (2005) believed that it is an instrumental belief with political influence and effect, which is promoted by both neoliberalism and economic–nationalist opponents.



Amable (2011) considered neoliberalism an ideology that “legitimizes individual competition and questions collective structure,” as well as a “form of existence,” which means “a norm of life characterized by generalized competition with others,” instead of a governance model in the ways of discourses, practices, and devices (p. 7). Amable also recognized the crucial role of competition in neoliberalism. The author argued that, although competition among individuals has been considered an evolutionary principle from social Darwinism, neoliberalism provides a moral aspect concerning individual responsibility, self-entrepreneurship, and tolerance to the failures in competition with sympathy.

### 2.3.2 Neoliberalism as a hegemonic ideology

The hegemonic culture is a critical view of the Marxist tradition. Althusser (2014) addressed that ideological hegemony is “essential for reproducing capitalist relations of production” (p. 143). Gramsci (1992) proposed the concept of hegemony, an ethical-political and economic practice that “the dominant group exercises throughout society” (p. 12). The author indicated that laissez-faire liberalism is such an economic hegemony that the leading group exercises by compromising the economic-corporate kind without touching the essential part of economic activity. Beyond economic or ideological determinism, the author also suggested an organic and conjectural view of mechanical causes and voluntarist elements in historico-political analysis. Thompson (1990) defined ideology in the following form:

Ideology is a system of representation that serves to sustain existing relations of class domination by orientating individuals toward the past rather than the future, or towards images and ideals which conceal class relations and detract from the collective pursuit of social change. (p. 41)

Dominant and hegemonic ideologies are powerful because they are reproduced in society in the latent form of consensus (Thompson, 1990) or common sense

(Gramsci, 1992). There are five modes in which these ideologies operate: “legitimation,” “dissimulation,” “unification,” “fragmentation,” and “reification.” Consensual social reproduction enables the dominant ideology-led individual daily practices in the form of sharing beliefs and values. It incorporates both dominant and dominated groups into the reproduction of social orders, which serves the interests of the dominant group. The analysis of ideology is to approach the “symbolic forms intersect with relations of power” (p. 56). The mediatization of modern culture, under the mechanism of institutions and mass communication, enables the analysis of ideology in society in the way the mediated symbol forms are analyzed (Thompson, 1990).

Hall and their co-authors criticized neoliberalism as a hegemonic process and a common sense (Gramsci, 1992), which people take uncritically and unconsciously in daily practices (Hall, 2011; Hall et al., 2013; Hall & O’Shea, 2013). As a global political–economic trend, neoliberalism “forced the developing world to set market force-free, open their economies to free-trade and foreign investment, while promoting the ‘liberal’ virtues of elections, multi-party politics, the rule of law and ‘good government’” (p. 707). In this process, neoliberalism combines with different political and cultural models and modifies them, no matter whether in Europe, Asia, Latin America, or other parts of the world.

Hall (2011) indicated the hegemony of the neoliberal culture and its consent to and permeation of popular consciousness. Global massive production and corporate financial infrastructure reproduce the ideas and cultural practices of commodification and individualism globally. These practices include daily discussions about wealth, marketing, and selling, as well as the metaphors of these terms in public discourse. The massive production models create a consumerist social-cultural context and promote the idea of “personalized” choice. Neoliberal culture is also embedded in the domain of popular culture and the paramount role of celebrities. Hall thought that “celebrities ‘magically’ close the gap between need and desire; between those who have no access to wealth, the fantasy of transformative success and the dream of instant translation to the lifestyle of the global super-rich” (p. 273). The author argued that, although

neoliberalism faces some crises, it still keeps running. One of the reasons behind that is that the impact of neoliberalism is not limited to the political–economic field; rather, the hegemonic project also expands to the cultural scope, influencing popular thinking and the system of calculation in daily life.

McGuigan (2016) manifested neoliberal ideology in the form of “selfhood” embedded with contemporary culture and art. The author criticized the fact that the consequences of neoliberal culture are more than those of the social-psychological field; it also somewhat legitimizes social inequality and global exploitation. They showed this phenomenon with creative industries, youth culture, education, and technologies. Individualism, self-entrepreneurship, and beliefs about freedom give no guidance or guarantees to the young generation for reaching success. Each individual is supposed to take responsibility for their own choices. McGuigan also indicated that the young generation is seduced by technologies and the “belief in the revolutionary properties of high-tech” (p. 28) in the context of the free market. Economic and social environments, such as the reduced quality of higher education, high housing costs, and intensive competition in the labor market, have caught the young generation in a neoliberal trap in which they often find glamorous occupations in fields such as creative industries, but the working conditions are always precarious.

### 2.3.3 Neoliberalism in reality television

Reality television became a successful global television phenomenon, together with the rise of neoliberalism and the deregulation of television industries (Deery, 2014). Previous research has discussed the pedagogic function of reality television. Hill (2005) showed that reality television hardly provides audiences with learning opportunities because of its entertainment characteristics. Others have suggested that reality television affords social and pedagogic functions by exposing and judging ordinary people’s lives (Couldry, 2010; Palmer, 2010). Ouellette and Hay (2008) linked the pedagogical function of reality television to

the political–economic theory of governmentality and neoliberalism in the social context of the United States. Sender (2010, p. 5) said, “central to governmentality is the use of surveillance in the cultivation of good neoliberal citizen.” This idea is adopted from Foucault’s theory on governmentality, which is inspired by the idea of panopticon: every individual citizen is under constant surveillance, and each citizen is supposed to be a “good citizen” similar to that in the panopticon prison (Foucault, 2012). Formats such as *Big Brother* cultivate self-monitoring behaviors by casting participants’ daily lives and providing surveillance scenes for audiences (Sender, 2010).

Ouellette and Hay (2008) discussed the educational and governmental functions of reality television. They demonstrated how reality television contributes to civic education and boosts neoliberalism into citizenship in the United States. Based on Foucault’s theories about neoliberalism, Ouellette and Hay (2008) defined governmentality as “a relation by the State to civil society, defined as an array of social institutions and private forms of association that comprise indispensable networks for exercising power and governing at a distance” and “a resource of practicing knowledge and skills” (p. 10). They considered television as a “culture technology” and “an object of regulation, policy, and programs designed to nurture citizenship and civil society and an instrument for educating, improving and shaping subjects” (p. 14). The “makeover” narrative in reality formats represents “social mobility, stability and civic empowerment” (p. 17) under the neoliberal political culture in the United States. Charity formats promote values such as volunteerism, compassion, and entrepreneurship, which encourage individuals to fit the public interests in the United States. Ouellette and Hay (2008) suggested that reality television shows citizens how to empower themselves by taking responsibilities and adopting the ideas of self-enterprising and self-reliance in the context of American neoliberalism. They did not consider neoliberalism as an ideology imposed in the context of reality television but rather as a highly dispersed and practical technique that can influence citizen’s daily life from the available resource, which is reality television.

According to them, reality television can achieve the aim of education by displaying the neoliberal lifestyle on television and leading audiences to inspect their own lives and to be “good” citizens in their life; in contrast, the “bad” citizens’ realities are exposed in the form of trauma. McCarthy (2007) argued that reality television demonstrates the point of connection between two analytical frames: the technique of governmentality and the experience of trauma in psychoanalysis. Trauma and humiliation are exposed on television in a form in which the participants are judged as “losers” under neoliberal rules, such as individual competitiveness, self-management, and self-entrepreneurship (Grazian, 2010). Skeggs and Wood (2012) demonstrated how personal failure is shown in reality television programs through the composition of bodies, gestures, and other material objects. People might resonate with the composition of value in reality television with pressure and legitimate themselves with the value in their daily performance.

Couldry (2008) exposed the features in the genre of game-docs, which correspond to neoliberal society: 1) Absolute external authority: the competition and space are “governed by an external authority whose validity or rationality can never be questioned” (p. 11), while the imagines of authorities are controlled and drawn by media producers. 2) Team conformity: Individuals compete with each other, while they should accept compulsory teamwork. 3) Authenticity: In reality television, there is a paradox between authenticity and “the necessity to perform.” The latter is often unseen in the audience’s minds. 4) Being positive: Contestants should be passionate, and they are not supposed to show doubt or uncertainty about the competition in their performance. 5) Individualization: Individuals are judged against each other. Contestants are not supposed to challenge the norms or falsity of teamwork.

Redden (2017) reviewed and emphasized the link between reality television and neoliberalism. The author admitted that not all reality television programs are neoliberal, but neoliberalism reshapes and overlaps with other socio-cultural elements in reality television. It is still significant to discuss neoliberalism in reality television because of the following reasons. First, neoliberalism is “a key element

of the broader formative socio-historical context” (p. 400). Second, widespread restructuring of the media system occurs mainly through the neoliberal principles of privatization, deregulation, liberalization, and globalization. Third, it is essential to ask the societal consequences of neoliberalism and the legitimation role of reality television and neoliberal cultures in the context of rising inequality in recent years. Redden suggested that media create the neoliberal narration based on a similar political-economic background in which collective social support declines and inequality among citizens arises.

According to Redden (2017), the neoliberal culture is implemented in reality television in several ways according to different genres. The makeover shows indicate that citizens should improve their fortunes and adapt themselves to the competition of the market society. “People are walked through how to form appropriate subjectivity, how to adopt the kinds of monitoring and self-reflection required to manage one’s own life as an individual citizen responsible for one’s fortune to the last detail and largely through the appropriation of commodities” (p. 406). In game-docs, intense competition and contestants’ capacities are the core rather than knowledge or skills. A participant’s performativity “becomes a quality of the cultural construction of ordinariness” (p. 408). The talent show also reproduces neoliberalism, emphasizing participation and competition in the context in which the markets are “inherently unstable and unequal,” and “increases the subjection of individuals to the demands of other potentially more powerful market actors whose satisfaction they must seek” (p. 409). Redden concluded that reality television typically exposes self-responsible entrepreneurship. The “ordinary people” on the shows are “competitive entrepreneurial subjectivity without expectation of fair recompense” (p. 399) and always supposed to obtain extraordinary rewards. The implication of neoliberalism in reality television is not limited to the program text; instead, it overlaps with other cultures and is discussed from other perspectives in academic research.

#### 2.3.4 Surveillance and reality television

Sender (2010) said, “central to governmentality is the use of surveillance in the cultivation of good neoliberal citizens” (p. 5). Palmer (2002) suggested that reality television is a theatre of surveillance that experiments with governmentality. An external surveillance culture cultivates self-monitoring in both reality television audiences and participants (Palmer, 2004; Sender, 2010).

According to Andrejevic (2004), reality television represents the extension of monitoring with a digital enclosure and the portrayal of surveillance in the form of self-empowerment promoted by economic authorities. The rise of the surveillance culture impacts society, which guarantees individualism and self-expression and overcomes homogeneity. Reality television and its application of new media technologies allow ordinary people to participate in television production, and such participation becomes “a form of productive surveillance” (p. 2), which commodifies the labor of these participants. Both the labor (sometimes free) in reality television and the immaterial labor from online fandom participation are exploited for program marketing and the affective economy (Andrejevic, 2008). Performances, discussions, and activities from casts and audiences also provide content and information for online platforms and facilitate these platforms to capture personal information. Personal data generated through online platforms are becoming “the economic machine driving the customized, targeted, and ‘accountable’ model of interactive online advertising” (Andrejevic, 2010). While reality television enables ordinary people to become famous or participate in television production, participation and activities do not fundamentally change power relationships between media authorities and ordinaries. Andrejevic (2004) concluded that the combination of new media technologies and reality television puts ordinary people into the dilemma between empowerment and exploitation.

Couldry (2008, 2010) emphasized the overlap of neoliberalism and surveillance to study reality television. The event structures in reality games are generated through the judging behavior of contestants. Reality television acquires different “external forms of authority,” for instance, the psychologist, music producers, and

professional chefs, which can legitimate the authority of the media to expose society (Couldry, 2010, p. 199). Reality television provides a space in which the “authority” of media works and in which surveillance and external authority play a crucial role in self-improvement through judging participant performances:

Reality television is better seen as a site where the authority of “the media”—their distinctive claim, however playful, to give us privileged access to the social world—is doing work, in alliance with other types of authority, to present the social world consistently: as a place where the complexity of people’s experiences and motives is easily reducible to rules; where one key rule is that submission to continuous surveillance and the judgment of external authority is necessary for “self-improvement” or self-development. The result is that a new form of mediated authority enacts in public, in which not just neoliberalism but multiple overlapping factors—of varying sorts and temporalities, economic, social and political—converge. (Couldry, 2010, p. 201)

While admitting the theories of governmentality on reality television, Couldry and Littler (2011) emphasized the gap between the text of reality television and the reception of audiences when considering television as a cultural technology (Ouellette & Hay, 2008). Governmentality does not always achieve success in the implementation of ideologies. Couldry and Littler (2011) thought that it is essential to supplement the theory of media rituals, which naturalizes the power of authority in creating social reality and enacting social norms. Sender (2010) suggested that the philosophy of governmentality and surveillance in reality television does not privilege rationalism and responsibility but does represent individualism, competitiveness, exposure, and shame. Although neoliberalism and governmentality are important approaches, some researchers advocate not considering them as the main narrations of reality television (Couldry, 2010; Miller & Kraidy, 2016; Sender, 2010). Some audience studies have proposed arguments and evidence challenging the totality of governmentality in reality television.



### 2.3.5 Glocalization and alternative ideologies in reality television

As mentioned before, reality television has become a global television phenomenon in the last decades with the global trade of formats. This phenomenon can be considered part of cultural globalization. Simultaneously, the localization of these global formats also occurs in each television industry around the world. This phenomenon is called “glocalization.” As Flew (2018) argued, global culture can alter local culture, while cultural globalization does not deny the existence of national culture. The success of global formats in each local market is unpredictable. These formats always need to adapt to local legislation, authorities, traditions, and markets while simultaneously challenging them (Deery, 2015). In terms of reality television beyond the Anglo-Saxon world, more varieties of political or local cultures are integrated into reality television in the global sphere in addition to neoliberalism.

Miller and Kraidy (2016) proposed a viewpoint on nationalism in reality television for global media studies. Neoliberalism is not relevant or equally implanted in reality television in different countries, while nationalism is the political culture in some local versions of reality formats. Instead of “promoting the privatization of social life and its separation from government, throwing into the hands of the market, reality television in many parts of the world has brought the government into cultural and social life” (Miller & Kraidy, 2016, p. 159). This idea is opposite to those of governmentality and free-market advocacy in neoliberalism.

Meanwhile, neoliberalism and other Western ideologies and values, such as individualism, gender equalities, citizenships, and political pluralism, can be activated by reality television in Pan-Arabic, Pan-African, and Asian societies, without denying nationalism and local traditional values in the same reality television program (Kraidy, 2009; Miller & Kraidy, 2016; L. Yang, 2013). Kraidy (2010) proposed two ways to consider the localization of neoliberalism: “one between seeing reality television as a space for the training of citizen-consumers

in synch with the demands of neoliberal ideology, and another focused on how neoliberalism as government fiscal and trade policy is resisted by social and political actors” (p. 213).

Kraidy (2009) interpreted reality television in the Arab world from the perspective of modernity. By analyzing different Western formats of reality television in Arab countries, the author concluded that the Arab world accepts Western modernity in “a spectrum of selective appropriations” (p. 212). Modernity is integrated into speech, actions, and identities and invigorates the Arab public’s daily life in a struggling manner. In the Arab world, reality television is considered “drafted into the performance of international rivalries, sometimes with deleterious consequences” (p. 163). Reality television provides an arena for political battles. Female contestants’ bodies in the talent show are considered national symbols in nationalist discussions about programs. Kraidy suggested that reality television “exposes the tension between the official dogma of cultural purity and the effective reality of cultural fusion” and enacts the hybridization of identities and cultures. It challenges “the notion of cultural purity cardinal to Saudi identity” (p. 113).

Neoliberalism and nationalism are not necessarily exclusive. Volcic and Andrejevic (2010, 2011) explored the notion of “commercial nationalism” in the post-socialist context in eastern Europe. They found that, in reality, television nationalism can be mixed with the commercial management of entertainment content as well as neoliberal ideology:

The model of commercial nationalism fits neatly with the participatory promise of the interactive era—and echoes its logic: the invitation to participate not just in marketing to oneself, but to ‘propagandizing’ oneself. The logic of the market reinforces the mobilization of nationalism not as a top-down imposition but as a reflection of the aggregated desires of the individual consumer. In this regard, we might think commercial nationalism as a “neoliberal” form of ideological identification: a kind of propagandizing “at a distance”. Rather than the state imposing nationalist ideals, these

ideals are incorporated into the appeal of commercial products, and hence portrayed as the reflection of “bottom-up” demand. (Volcic & Andrejevic, 2010, p. 116)

Nationalism can blend with neoliberalism in the form of processing national identities in interpersonal relationships and the process of self-actualization, emphasizing the ethnic belongings of individuals (Volcic & Andrejevic, 2009, 2010). For example, in the Macedonic version of *Big Brother*, conflicts provoked by nationalism, religion, and race are reproduced by individual inter-personal relationships in the show, while the latter is situated at the core of reality television. When fans and consumers are united by transnational entertainment formats, the conflicts of nationalism become less important than the common interests of humanity. Paradoxically, each individualist and their interests should live in the social and historical contexts. This means that an individual cannot be derived from their social background and social relations or lose their particularity in the social sense. Conflicts in reality television represent those between social groups and classes. Such conflicts cannot be erased by overcoming individual national stereotypes in the program.

The discussion about nationalism in reality television also expands to the Western world. National identities, images, stereotypes, and national ideologies are usually reproduced with everyday performances and competitions in reality television (Aslama & Pantti, 2007; Boyd, 2012). Darling-Wolf (2010) discussed the negotiation of national identity in the French version of *Star Academy*. National identity is represented by singing performances and the origin of competitors. Casts from North Africa or black artists also participate in the French *Star Academy*. The participation of distinct races does not represent racist or identity conflicts in the program but rather the enjoyment of the French culture. These programs also create a stage for the global culture by inviting elements from “other” cultural environments, such as U.S. street arts and Latin dancers. At the same time, French culture is emphasized in subtle ways when global cultures are exposed in the program, which reasserts the leading position of France in the international scene and the francophone community. Darling-Wolf criticized that

the French version of *Star Academy* emphasized global citizenships while it obscured French imperialist history

Similar to industries, academic research has also focused on this television phenomenon that emerged in Anglo-Saxon countries. Earlier studies mainly discussed several topics of reality television: neoliberal ideology and governmentality in reality television (Ouellette & Hay, 2008), surveillance culture and free labor in reality television (Andrejevic, 2004, 2008), ritual view and mediated reality (Couldry, 2002), and commercialization and deregulation in the television industry with the popularization of reality television (Deery, 2015; Prado & Delgado, 2010). From the perspective of globalization and global media studies, Kraidy (2009, 2010) shifted attention to reality television and ideologies beyond Anglo-Saxon countries. According to Miller and Kraidy (2016), globalization is situated at the heart of reality television. By studying reality television, we can learn about the uneven modernization in different countries as well as the flow and counter-flow of globalized culture and ideologies. It has been claimed that reality television provides a stage that shows the social relations and identities of participants (Ouellette, 2014). Some studies have mainly focused on identities represented in reality television, such as social class, race, and gender, as well as audience reception from different social classes (Hill, 2019; Skeggs & Wood, 2012; Stiernstedt & Jakobsson, 2017). These elements often overlap with nationalism or neoliberalism, propagating related ideologies (Couldry, 2008; Kraidy, 2009; Ouellette & Hay, 2008).

## 2.4 Media rituals and reality television

### 2.4.1 Media rituals

Rituals matter because they frame the specific values we maintain in common in society (Couldry, 2005a; Durkheim, 1995). They are closely related to symbolic power, which is a type of power that consecrates, reveals, and constructs reality, resting on performative discourse (Bourdieu, 1989, p. 23; 1991, p. 166). Carey (1975, 1989) proposed the ritual view of communication, distinct from the transmission view of communication. The transmission view deals with the dissemination and extension of information, while the ritual view focuses on the cultural and symbolic power of communication, which can maintain society over time and represent shared beliefs. Using the metaphor of religious ritual practices, Carey (1989) argued that ritual communication relates to “sharing,” “participation,” “association,” “fellowship,” and “the possession of a common faith.” Based on the ritual view of communication, Newcomb and Hirsch (1983) proposed the concept of the cultural forum to see television as a space for discussion and negotiation of ideologies. This concept expands from television series to news (Lotz, 2004), and from television to the Internet and social media (Bernabo, 2019; Jensen & Helles, 2011).

Dayan and Katz (1992) focused on television events in the monopolistic era of television. These events are preplanned, remote, and live ceremonies mediated through broadcasting technologies and can interrupt audiences’ daily routine, pulling them into a holiday ritual. The rituals, which rely on the symbolic power (Bourdieu, 1989) of ritual communication, can guarantee the common faith and solidarity of a community or nation (Carey, 1989; Dayan & Katz, 1992). Couldry (2002, 2003, 2005, 2012) developed the concept of “media rituals,” which can explain social phenomena related to communication and media in current years with the development of media technologies. First, the author linked the concept of media rituals to popular culture, focusing on how reality television naturalizes

the symbolic power of media rituals. Second, their theory on media rituals provides a view of power relations.

The theory of media rituals is based on Durkheim's *The Elementary Forms of Religious Life*. Durkheim (1995) considered religion as a rhetoric of social orders that generate similar practices in contemporary social life. Religion assumes a bipartite division of the universe, known and knowable. Media rituals are often divided into two mutually excluded categories: the sacred part, which includes "things protected and isolated by prohibitions," and the profane part, which includes "things to which the prohibitions are applied, and that must keep at a distance from what is sacred" (p. 38). According to Durkheim, "rites are rules of conduct that prescribe how man must conduct himself with sacred things" (p. 38). Such rhetoric of social orders is applied to understand the contemporary practice of science (Durkheim, 1995), the practices of examinations (Bourdieu, 1991), and the practices of media (Couldry, 2003). Bourdieu (1991) developed the theory of Durkheim. According to Bourdieu, ritual symbolism is effective on rituals themselves and their power of representation and delegation of authority. The author that the power of rites relies on symbolic power, which not only represents the institutional power in the bureaucracy but also divides social categories and legitimizes such division. Through social rituals, symbolic authorities, such as institutions, impose specific social orders and guarantee their symbolic capital.

The concept of media rituals is defined as "formalized actions organized around key media-related categories and boundaries, whose performance frames, or suggests a connection with, wider media-related values" (Couldry, 2003, p. 29). The ritual activities, of course, are different from other daily activities.

Couldry (2003) concluded three characteristics in previous anthropologic studies that can distinguish ritual actions from non-ritual actions: 1) habitual actions, which are habits or repeated, irrespective of whether or not they have special meanings; 2) formalized actions, which are regular and meaningful; and 3) actions involving transcendent values (p. 3). Couldry (2005a, 2019) suggested analyzing media rituals from the perspective of formalized actions and actions involving transcendent values. Formalized actions enable rituals to "reproduce

the building blocks of belief without involving any explicit content that is believed” (Couldry, 2019, p. 130). Media rituals are not necessarily performed on media or involved in media-related values, but around media rituals, there are always structured media-related categories and media-related values that call attention (Couldry, 2005a). Ritual actions occur in an imaged ritual space and condensed symbolic power, which is represented by performances and practices. The ritual space of media is larger than the local media context; it is rather a broader landscape formed around the concentration of symbolic power in media institutions and shaped through different detailed and particular patterns and categories (Couldry, 2003, p. 13).

There are several key concepts in Couldry’s theory that make media ritual liminal: “the patterning of action, the framing of attention, boundaries, and ritual categories” (Couldry, 2003, p. 23). Rituals can enact specific beliefs because they can reproduce repetitive categories and patterns (Couldry, 2005a). Patterned actions are symbolic performances or actions that enact values or beliefs. In the media context, patterned actions help legitimate media power. Through such ritual action, media institutions persist and confirm the legitimacy of their power in representing society (Couldry, 2012). This category refers to the hierarchical difference between those framed by media and those not, such as media and non-media people; the reality on media or not; and the locations where films or series are produced (Couldry, 2005a). This corresponds to Durkheim’s (1995) bipartite division in religious rites: the “sacred” and the “profane.”. Both terms celebrity and liveness correspond to the sacred part of media rituals. The term celebrity represents the sacred group of people on the media, and the term liveness represents the sacred moment of reality out of the whole time flow of reality (Couldry, 2003, 2012).

Framing (Goffman, 1986) is another crucial concept in media rituals. Couldry (2003) avoided the functionalism of media, which assumes that media reproduce ideologies; rather, the author believed that media rituals frame various values on different levels and specific values are played out in this process. As Couldry said, “ritual form is one important way in which the legitimacy of assumed wider values can be confirmed and communicated” (p. 25). Rituals can frame our attention to

specific objects and values from society into ritual performances. In other words, rituals are organized around certain categories and boundaries and underline specific values that represent the social world.

Media rituals can reproduce symbolic power and legitimize its concentration in media institutions by representing and framing the myth of a mediated center. According to this myth, there is a center in the social world, and media platforms speak for that social center. The social center represents the “moral or cognitive foundation for society and its values,” and then, media “has a privileged relationship to that ‘(social) center’, as a highly centralized system of symbolic production whose ‘natural’ role is to represent or frame that ‘center’” (Couldry, 2003, p. 45). The myth of a mediated center seems more convincing in the age of press and broadcasting media. Digital media based on the Internet provide the so-called “decentralized” networks of information nowadays, where everyone can become an influencer, regardless of the political or economic support. Couldry (2012) argued that, in the digital era, media rituals do not necessarily need political or economic privileges in society. However, media institutions do demand framing of the social center and creating new forms of media rituals dominated by entertainment or political narrative to sustain attention and legitimacy, which becomes even more intensive in the digital era.

Rejecting the functionalist view in media studies, Couldry did not believe that media rituals can raise audiences’ loyalty to media institutions. Instead, they said that the media ritual is a social form that “exploits key categories to enact a certain relation between media and their target populations,” and that it is “a strategic action involving media institutions and implicating their audiences and participants” (Couldry, 2012, p. 116).

Media or media rituals are not a vehicle for reproducing a specific ideology; however, different ideologies can be framed in media rituals and can compete with other ideologies. Couldry (2005a) did not deny the idea that media institutions can strategically produce and struggle for a specific ideology, or can successfully reproduce some ideology like “free market” or populism. However, the theory of media rituals emphasizes relationships and competitions among



different ideologies, values, and power through media. Thus, we need to understand the reproduction of ideology in framing “within which such specific ideologies are played out” (Couldry, 2003, p. 12). Couldry (2012) concluded that the theory of media rituals is “based on the assumption of value-pluralism, not value coherence”; it can “apply to a wide range of societies and media cultures at a time of accelerating global uncertainty about value” (p. 98); and it helps to understand both effects of media’s concentrations of symbolic power as well as different institutions’ power in media practice.

#### 2.4.2 Reality television as media rituals

Couldry considered reality television a type of media ritual because it enacts social boundaries and categories by providing a space in which different parts of the social power are encountered. Reality television is a site of the encounter of social categories between the “media” world and the “non-media” world. Performances and self-disclosure on reality television are patterned actions in media rituals that are produced around social categories (Couldry, 2005a, 2012). Reality television constructs a ritual space that is associated with certain social values or large claims about society (Couldry, 2019, p. 130). Couldry discussed the representation of social categories in reality television in several ways.

The first ritual category in reality television is celebrity. Couldry thought that the celebrity is an example of the category of media people in contemporary popular culture. Reality television leads “non-media” people to orient their practices to the media and have the opportunity to perform on media or become “media” people and access the social center (Couldry, 2002, 2005b, 2005a). Celebrities have symbolic power, which works in media rituals such as television events and reality television. Their appearance in the media guarantees their special status in the mediated category (Couldry, 2012). This category is open to the reproduction of institutions, individuals, and societies, which allows institutions to continually produce celebrities and the ordinaries to become celebrities. Reality television seems to soften the hierarchy since it promises that ordinary participants have opportunities to become celebrities. It shows that celebrities can also become

“ordinary” by recording their personal lives and relationships. However, this narration of reality television underlies the authorities of media institutions in representing reality. Celebrities in reality television also entrench the authority of television in defining ordinariness, because they highlight people in media, separating them from those who are not in media (Couldry, 2002).

The second ritual category is liveness. Live transmission is not necessarily a live reality mediated on television. Rather, the transmitted contents can also be fictional. What makes the liveness powerful is the fact that live transmission guarantees the connection between people and the transmitted events, which makes people feel a connection to the social center instantly. In a broader sense, viewing a previously recorded television program can also be seen as liveness, as it accommodates audiences’ timetables to the broadcasting time of the program (Couldry, 2003). The third category is mediated reality. Reality television also shows media institutions’ authority in selecting mediated reality for broadcasting (Couldry, 2012). As discussed above, reality television shows the media institution’s power in framing reality. Although audiences doubt whether reality programs are “real” or “fictional,” Couldry (2002) thought that there is no need for media institutions to declare the ambiguities, as media’s symbolic authority relies on the mediation of such ambiguities.

In summary, media rituals refer to those patterned actions related to media that enact social boundaries and categories, which condense media institutions’ symbolic power in legitimating social values. Reality television is a media ritual that highlights the social categories, including media people, liveness, and mediated reality. It emphasizes the concentration of the symbolic power of media institutions, whose legitimate values include surveillance, judgment, and neoliberalism. Couldry’s theory of medial rituals is fundamental for understanding reality television. Kraidy (2010) interpreted this theory as an approach that takes reality television as “a social space where neoliberalism is mediated, contested and transformed by the issue of social authority, sexuality, class, labor, and a variety of group identities—ethnic, national, regional—operating on the local-to-local spectrum” (p. 215). However, Couldry’s theory on reality television and media rituals is generated from the context that television is a monopolistic

medium. In the next section, we will extend the notion of media rituals in the context of social media.

#### 2.4.3 Social media as a ritual space

A ritual space is an imaged landscape, wider beyond the media platforms themselves, formed around the unequal distribution of symbolic power in which media rituals occur (Couldry, 2003, p. 13). Media rituals frame the mediated center of society through patterned actions. A key concept in the theory of media rituals is the myth of the “mediated center,” which seems deconstructed in the time of Web 2.0. However, media are a site of struggle between the forces of “market-based fragmentation” and the “continued pressures of centralization” (Couldry, 2009, p. 447; Hepp, 2013, p. 135). On one hand, technologies provide diverse forms of media communication; on the other hand, ownership and the use of particular media are still considered central and essential (Rodríguez et al., 2020; Hepp, 2013). Thus, the symbolic and institutional power of media organizations, including television and social media platforms, does not disappear (Monclús et al., 2019; Navarro et al., 2021).

Another reason is that the category of liveness still makes sense. although television viewing time and location are less restricted, audiences still intending to keep up with the current information (Couldry, 2012). Moreover, social media platforms condense into a hierarchical structure by algorithms in their political and economic backgrounds (van Dijck, 2013a). As discussed before, when social media act as the second screen of television, they maintain the symbolic power of television in the age of the Internet through the interconnection of producers, audiences, platforms, and contents. Thus, when we conceptualize reality television as media rituals, social media can be a ritual space in which ritual actions related to media take place and the symbolic power of media institutions is condensed.

In this sense, commercial social media platforms, such as Weibo or Twitter, concentrate their symbolic power by controlling the visibility and popularity of

specific contents, topics, or users through algorithms (van Dijck, 2013a; van Dijck & Poell, 2013). Institutions of television programs maintain their symbolic power in producing content around which audiences' collective activities are formed (Hepp, 2013) and economic and political aims can be achieved. In addition, the part of content producers and the part of platforms consolidate their symbolic power through their strategical collaboration and "vertical integration" (van Dijck, 2013a, p. 37). This means that the boundary between the mediated world, including the categories of "reality" and "celebrities," and the non-mediated world still exists with social media. Meanwhile, visibility and popularity on a social media platform can principally be influenced by two types of interaction between the platform and users (van Dijck & Poell, 2013). Individual users also participate in media rituals by posting related commentaries and content.

Referring to the characteristics of the ritual view of communication—"sharing," "participation," "association," "fellowship," and "the possession of a common faith" (Carey, 1989)—social media provide television program-related fellows (e.g., audiences, producers, and casts) a space for participating, sharing, and interconnecting (associating). Even if they comment with different opinions, it occurs in the context of the television programs and their hashtags, which frame specific social values and mediate social centers. Lee and Andrejevic (2013) indicated that the second screen brings the audience back to real-time viewing, which makes advertisers' programming sponsorship important. The real-time data flow generated through the second screen provides resources for marketers and advertisers. Thus, real-time television viewing, as well as interaction, maintains their ritual values in the digital era:

(...) interactive apps play an important role in reaggregating audiences when programs air in real-time, and in generating "big data" alongside live and social entertainment. The second-screen promise is to reassemble audiences around viewing-as-shared events and thereby reconfigure a version of viewing as a social ritual—not because viewing cannot be time-shifted, but because doing so would mean losing out on a proliferating array of interactive affordances and the forms of social networking they enable. Commenting on the on-screen action is not quite

as fun when no one else is watching. (Lee & Andrejevic, 2013, pp. 42-43)

Couldry (2003) argued that the online interactivity setting “represents a further development of the media’s ritual categories of ‘reality’ and liveness” (p. 122). Nowadays, television viewing is less restricted by time, platforms, or locations. However, media institutions still have authority over the time and platform of program emission. Meanwhile, audiences intend to “keep up with the news” (Couldry, 2012, pp. 84-85). Couldry (2012) considered the expression “keep up with” to see media-related practices in the period of digital media, especially about news; however, the author did not directly relate it to reality television. This notion can be extended to discussions on social media about reality television within hashtags. Figures 1–3 show that the live emissions of a reality television program can stimulate related discussions on social media simultaneously. These figures also reflect the event structure of reality formats on both television and social media. The categories of liveness do not weaken with digital media.

Hill (2019) argued that the live event of reality television attracts audiences at a specific time, place, and channel on traditional television, while digital television also relies on the liveness of the reality formats’ live event to promote entertainment brands. Hill used the expression “social media blackout” to describe the social ritual of multitasking while viewing entertainment television programs. The creation of a social ritual and a social media blackout shows the symbolic power of storytelling in cross-media television content. The author considered the viewing experience of television on social media as a social contract, “an emotional, intellectual investment between the producers and audience” (p. 51) in creating quality content.



Figure 1: “Transmission effect” of “#青春有你#” (#Young With You#) on Weibo (01/03/2020-31/05/2020).

Source: Self-elaborated

Note: The trend was retrieved from data.weibo.com, which is a platform managed by Weibo that provides indices of keywords about public issues on Weibo. It quantifies the "transmission effect" on Weibo using the weighted calculation of the data on "mention," "read," and "interaction."

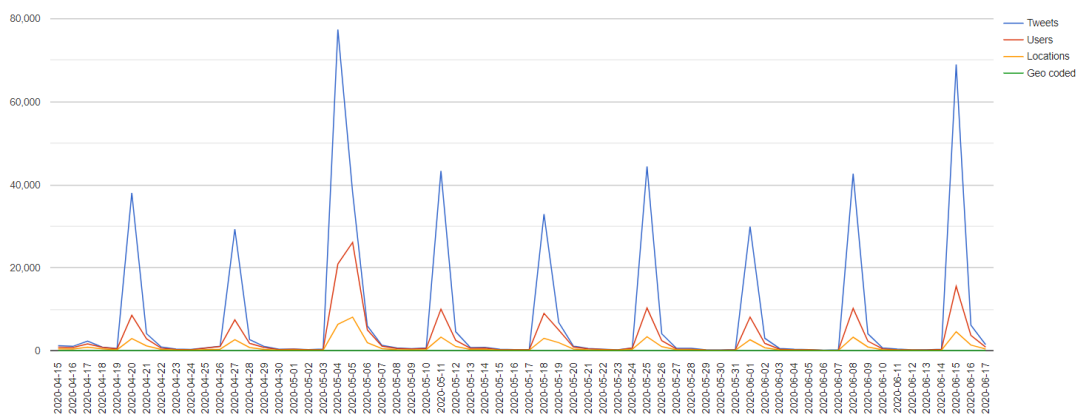


Figure 2: Number of posts captured on DMI-TCAT querying hashtags “#MasterChef or #MasterChef8” (15/04/2020-17/06/2020).

Source: Self-elaborated

Note: The trend was retrieved from Digital Methods Initiative-Twitter Capture and Analysis Tool (DMI-TCAT). Each peak corresponds to an emission date of the *MasterChef* program on La 1 in Spain.

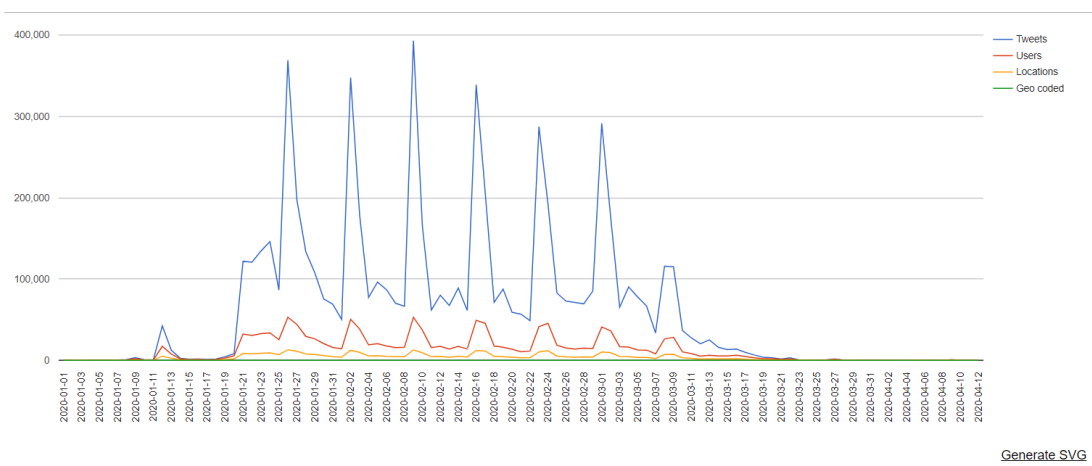


Figure 3: Number of posts captured on DMI-TCAT querying hashtags “#OTGALA (1-6).”

Source: Self-elaborated

Note: The trend was retrieved from DMI-TCAT. Each peak corresponds to an emission date of the program *OT* on La 1 in Spain. The trend decreased after March 2020 because the program was paused because of the pandemic. The broadcaster recovered the program in May 2020.

In summary, according to Couldry's theory of media rituals, reality television emphasizes social boundaries between the mediated and non-mediated worlds. The weekly broadcasting and viewing experience of reality television, as well as the global success of reality formats over two decades, have naturalized and legitimized the concentration of symbolic power of media institutions. At present, although digital technologies promise decentralization of communication and digital platforms have distracted the audience's attention from the monopoly of the television screen to multiple screens, reality television still concentrates its symbolic power. The reasons are, first, reality television formats guarantee audience attention for television institutions. Second, social media, as the second screen of television, revives the importance of liveness in the sense of keeping up with the information and sharing viewing experiences. Third, the hierarchical structure of commercial social media does not only maintain existing social boundaries but also constructs new social categories between popular users/topics and non-popular users/topics, which is guaranteed by algorithms.

We propose that the action of multitasking viewing of reality television programs is a patterned action when we conceptualize reality television as a media ritual. We do not mean that all activities on social media platforms are ritual. This patterned action is ritualized when institutions produce the program and publish content on social media to attract audiences, as well as when the audience comments on social media using program-related hashtags, which makes them approach the "social center" mediated by reality television. This patterned action practices around the matrix formed by television and social media institutions (Qing & Prado, 2020) through television contents and the mechanism of social media, which guarantees the symbolic power of media institutions. As a media ritual, various values and cultures are framed and compete in the context of reality television.



## 2.5 Conclusion

To summarize, Foucault's philosophy on neoliberalism and governmentality refers to the implication of politics in the market order. His philosophy has been widely applied to the study of reality television. According to Marxist scholars, neoliberalism is a hegemonic culture reproduced through the conjuncture of the global capitalist production mechanism in global financial infrastructures and corporations, and the implication of neoliberalism as a political project globally. Critically understanding the Foucauldian tradition and the Marxist critics of neoliberalism, Springer (2012) proposed that the discursive power of neoliberalism is a dialectical "circuitous process of socio-spatial transformation" that needs to be dialectically understood through the perspective of social structure and discourse.

As Bourdieu (1991) argued, symbolic power is subordinate to other forms of power. Through symbolic struggles, hegemonic power is manifested and legitimized. The global flow of reality television formats manifests the globalization of neoliberalism and the hybridization of neoliberal values with multiple cultural values (Couldry, 2008; Kraidy, 2009). At the local level, national and political cultures can be framed in the context of each television industry. Neoliberalism competes and reciprocates with different types of cultures in different socio-political backgrounds. We consider reality television as media rituals (Couldry, 2005b) that emphasize the symbolic power of media institutions, frame social values, and enact social orders. This thesis considers the second screen viewing of reality television as a type of media rituals in which values are framed, from which specific ideologies are played out. The discussion related to programs on social media platforms is an extended part of the media rituals created by reality television.

# **Chapter 3 Media and Socio-Cultural Background in China and Spain**

## **3.1 Media and socio-cultural background in Spain**

### 3.1.1 Neoliberalism in Spain

Neoliberalism was imported and adapted in Spain together with the flow of globalization. After ending the Francoist dictatorship in 1975, Spain experienced a period of “normalization,” transiting into a democratic and modernized country (Solà-Garcia, 2019). Spain ended its isolated role in Europe, having participated in the European Community and becoming an active member of the European Union. The adaptation and interpretation of neoliberalism, as a political and economic project, have been led by the Spanish Socialist Worker Party (PSOE) and People’s Party (PP) between the central-left and central-right (McVeigh, 2005). Spain has applied the embedded neoliberalism model, which means, “neoliberalism ensconced within measures that compensate citizens for dislocating effects of market” (Ban, 2016, p. 33). Before the economic crisis in 2008, Spain was “engaged in policy dialogue at the highest levels with the European bastions of the Anglo-Saxon model” (McVeigh, 2005, p. 90), having applied reforms in the labor market, privatization, and deregulation. A considerable performance in economic development before 2008 was achieved through “a high degree of labor market segmentation and a relatively underdeveloped welfare model” (p. 104).

Facing the economic crisis, the Spanish policy process was highly centralized, synthesizing neoliberalism and Keynesianism. Although the socialist party tried to defend the core of public service and welfare during 2008–2011, austerity economic policies have been applied, including the resilience of embedded neoliberalism and a progressive reduction of the welfare state. Especially after the rule of the conservative party ended and PP took the government in 2011, embedded neoliberalism was drastically retrenched (Ban, 2016). The welfare state and public sector were reduced, which reinforced inequality and competitiveness “based on low wages and employment informality,” and the family became the provider of the welfare state instead of the government (Banyuls & Recio, 2015, p. 40).

Spain was an egalitarian and statist society (Noya-Miranda, 1999; Oliva & Pérez-Latorre, 2020). With the implementation of neoliberalism and the normalization of Spain in European society, the neoliberal culture became an omnipresent culture in this country. Neoliberal values, including individualism, “laissez-faire,” and competition, challenged the egalitarian consensus (Noya-Miranda, 1999). Especially, young college-educated people who earned higher incomes believed in the ideas of individual success and merit (Martín-Artiles et al., 2016). Spanish society accepted and enshrined technocratic power and the class of intellectuals and experts. The neoliberal project with weak welfare policies generated neoliberal economic and cultural bubbles. It also boosted the individualist consumerist culture and the “competitive means of existence,” which are “supported by forms of authority, hierarchy, and cultural inequality” (Moreno-Caballud, 2015, p. 29).

With the reduction of the welfare state during the economic crisis, an increasing number of younger working class members considered themselves as providers of their welfare. The neoliberal ideas of citizen responsibility, self-responsibility, and self-investment merged in the young culture and popular culture, while the role of the state as a protector of losers of market competition disappeared

(Aramburu, 2015; Oliva & Pérez-Latorre, 2020). The economic crisis led to a crisis of neoliberalism in this country and provoked anti-neoliberalism and anti-elitism (Moreno-Caballud, 2015). This counter-hegemonic culture not only manifested through the 15-M indignant social movement, out of which emerged the left-wing populist party Podemos, but was also reflected in popular culture in the forms of film, television programs, and photographs (Prádanos, 2018). Like other Western countries, the culture of austerity, which legitimizes inequality and self-responsibility, was integrated into popular culture in Spain, and the counter-flow of austerity culture was provoked. These cultural effects persist even today (Oliva & Pérez-Latorre, 2020). Neoliberalism also caused economic vulnerability in rural communities in Spain, whose social and economic demands have recently been covered by right-wing populism, similar to the recent socio-political and socio-cultural trends in many countries (Cortes-Vazquez, 2020).

### 3.1.2 Television system in Spain

According to Hallin and Mancini (2004), the media system in Spain is the polarized pluralist model, also called the Mediterranean model. In this model, the mass media are highly involved in the political system because of the history and tradition in Spain and other Mediterranean countries. In terms of broadcasting systems, Hallin and Mancini called the model in Spain a “government model”: the government directly controls the public broadcasting system. It is the Spanish parliament that appoints the governing group in Spanish Radio and Television (Radio y Televisión Española, RTVE), and the appointment should be approved by two or three parties (Hallin & Mancini, 2004, p. 107). This model can guarantee pluralism in broadcasting content, which involves polemic discussions from different political parties, although it still slants toward the governing majority (p. 106). Hallin and Mancini believed that media content can reveal how strongly power penetrates media. The levels of penetration often show on journalist content and sometimes on entertainment content. They also mentioned that in countries with government-model television systems, such as Spain, alternative

media institutions can make public broadcasting services out of control of political majorities (p. 30).

Television was introduced into Spain in 1956. In 1973, the national radio and television broadcasting system was consolidated into the RTVE Centralized Public Service. After the Francoist dictatorship, pluralism and content diversity in the broadcasting system were guaranteed through media ownership regulations to avoid abuse of power (Llorens, 2010). Private televisions were launched with the promulgation of Law 10/1988. A private broadcasting corporation, AtresMedia, and an Italian communication corporation, Mediaset, participated in the Spanish television system during the 1980s. In the first decade of the 21<sup>st</sup> century, the installation of digital terrestrial television (DTT) increased the number of television channels and programs (Joaquín García, 2006). Various national commercial channels, such as Telecinco and LaSexta, as well as local public and commercial channels, were launched in this decade. The multiplication of channels and content resulted in the audience's fragmentation and ended the dominant age of RTVE (Quintas, 2018). After the DTT officially took the place of analog television, the television industry in Spain experienced a reconfiguration with the enactment of the law in 2010 (Ley General del Comunicación Audiovisual), which substituted Law 10/1988 and encouraged private emission of entertainment contents (Fernández Jara & Roel Vecino, 2014; Vidal Beltrán, 2011). Apart from public and private television groups, which cover the country, there are television services in each autonomous community (first-level political and administrative regions in Spain), as well as local groups in lower levels of administrative regions and non-regulated television groups.

RTVE is a Spanish public broadcasting system within the national scope. It distributes the television content into five channels: two generalist-interest channels (La 1 and La 2) and three thematic channels. The three thematic channels—Clan, Teledaporte, and 24 Horas—focus on children's programs, sports, and news, respectively. Compared to La 1, La 2 undertakes more work in completing the mission of public services and shares responsibility with La 1. This makes La 2 less stressed in commercial competition (Fernández Jara et al.,

2014). The programming structure of La 1 is horizontal on each working day; the same contents are programmed simultaneously on each working day, except for the evening slot. It is vertical on weekends, which can adapt to the audience's daily habits (Fernández & Roel, 2014; Quintas-Froufe, 2018).

As a public broadcasting group, RTVE has special financial regulations. Since the economic crisis of 2008, advertising income has decreased in RTVE. In 2009, commercial advertising investments were abrogated in RTVE. Since the promulgation of a regulation in 2009, Law of Financing of the Spanish Radio and Television Corporation (Ley de Financiación de la Corporación de Radio y Televisión Española), there have been no commercial advertisements in public channels in television programming. The RTVE investments have mainly originated from the compensation provided by the General Budget of State and tax from operators of telecommunication, operators of private television, and other television operators in the public field<sup>1</sup>.

In 2010, public television in Spain became less concerned among the audiences. The annual audience shared decreased continuously from 2012 to 2015 (Quintas, 2018). In Spain, the law requires content programming on public broadcasting services to cover various objectives, to guarantee pluralism in political opinions and cultural diversity, to maintain social integrity and gender equality, and to guarantee citizen rights, territorial cohesion, and international relationships and peace. In terms of culture and entertainment, the law of state ownership of radio and television (Ley 17/2006, 3.2) indicates that the public broadcasting service is responsible for providing access to different genres of programs and institutional, social, cultural, and sports events aimed at all sectors of audiences, paying attention to the topics of special public interest; promoting the dissemination and knowledge of Spanish cultural productions, particularly audiovisual ones; and promoting knowledge of the arts, science, history, and culture (Vidal Beltrán, 2011). Because of the non-commercial mission of public television, content

---

<sup>1</sup> Preguntas Frecuentes en el Sector Audiovisual. <https://www.cnmc.es/faq-audiovisual>

programming has generally kept away from audience interests, which has led to a decrease in the audiences' share of public television (Quintas, 2018).

The absence of an authority exclusively dedicated to regulating television has placed Spain's television market in a private duopoly (Bustamante, 2014; Medina-Nieto & Labio-Bernal, 2019). Although the development of DTT strategies during the 2000s was estimated to bring more broadcasting players, the economic crisis and competition in the market led to mergers of private television corporations and the reinforcement of the duopoly (José García, 2013; Medina-Nieto & Labio-Bernal, 2019). The television market in Spain is dominated by two private media corporations: Mediaset España Communication and AtresMedia. Mediaset owns two generalist channels: Telecinco and Cuatro; five thematic channels: Factoría de Ficción, Boing, Divinity, Energy, and Be Mad; and one over-the-top (OTT) platform: Mitele. AtresMedia owns two generalist channels: Antena 3 and LaSexta; four thematic channels: Neox, Nova, Mega, and Atreseries; and one OTT platform: AtresPlayer. In 2019, these two leading private television companies together occupied 85% (Mediaset 44% and AtresMedia 41%) of the television advertising inversion in the market. In the same year, the most viewed traditional television channels were Telecinco, Antena 3, and La 1, which corresponded to screen shares of 14.8%, 11.7%, and 9.4% (Barlovento Comunicación, 2019). Other private television operators, such as Veo TV and Net TV, were not competitive in the market. They stopped broadcasting in 2009 and 2012 and started renting their signals to other international media corporations, such as Discovery Networks and Disney Channel (Medina-Nieto & Labio-Bernal, 2019).

Since 1988, pay-TV, together with private television, has been allowed in Spain's television market. The revenue of pay-TV mainly comes from subscriptions; thus, these channels do not compete with free-to-air channels in advertising revenue (Llorens, 2010). The first pay-TV channel, Canal+, was launched in 1990. In the 2000s, Canal+ formed a crucial part of the digital pay-TV platform Digital+, which was owned by the media group PRISA (Beceiro, 2009). In 2010, the Spanish telecommunication company Telefónica bought Digital+ from PRISA and

renamed the pay-TV brand as Movistar+ (Gutiérrez Lozano, 2020). Movistar+ was the largest pay-TV brand until U.S. OTT services, such as Netflix, Amazon Prime, and HBO, started their business in Spain around 2015 (Wayne & Castro, 2020). Instead of relying on advertising income, these pay-TV platforms focus on providing high-quality audiovisual content to subscribers and constructing their brands with the original production of functional series and films, which has impacted the programming strategies of fictional content on traditional television channels (Cascajosa, 2018; Castro & Cascajosa, 2020).

After having recovered from the economic crisis that occurred around 2014, advertising inversion in the television market decreased again in 2019 with the challenge of the Internet and streaming television platforms (Barlovento Comunicación, 2019). More than half of Spanish consumers were expected to use OTT or pay-TV services in 2020. Currently, 38.7% Spanish families are using OTT services, and 27.8% are using traditional pay-TV (Barlovento Comunicación, 2020).

### 3.1.3 Reality television in Spain

Reality television became popular in Spain in the 1990s, after the commercial television model was allowed (Mateos, 2011). Such television genres, which combine reality, fiction, and entertainment, are also called “info-shows” in Spain. This television genre includes not only reality shows, reality games, talk shows, and docu-soaps but also interviews and debates (Prado, 2003). The most popular reality genres in Spain during the 1990s were reality shows, talk shows, and docu-soaps. In this period, reality formats became successful with the objectives of public interests. In addition, charity programs and dating programs gained audiences’ attention. These programs often intervened in intimate relationships and helped ordinary people develop their personal lives, telling stories in finding solutions and explications of guilt. Documentary-like programs, including factual, journalist, sensationalist, and entertainment elements, were also important in this



period, such as docu-shows, docu-series, and docu-soaps. Another sub-genre successful in Spain in the 1990s was talk shows, which often occupied prime time. An increasing number of commercial elements, such as advertisements and celebrities, were hybridized in reality programs.

The term “reality shows” is considered a synonym for reality television. However, in a narrow sense, it is defined as a sub-genre of info shows that tells a factual story about peoples’ lives as well as their private and intimate relationships (Álvarez & Ramírez, 2009; Oliva, 2013). The so-called reality games include elements in reality shows and competition. The contestants not only compete with each other but also live or collaborate and improve their skills and knowledge in a specific field, often in popular culture. Since 2000, different reality-game formats have been launched and been successful in Spain. This sub-genre is directly related to audience share and the commercial strategies of television groups. The Spanish versions of *Big Brother* and *Survivors* have been the pillar programs in content programming and audience share on private television during the past two decades. However, these programs have also received many critiques from society because of their scandalous and immoral elements (Monclús & Vicente, 2009).

The exposition of traumas, sufferings, and humiliations on screen is a key storytelling tactic of reality formats. McCarthy (2007) argued that such scenes fit together with neoliberal values on reality television, which can make citizens realize self-discipline to achieve the aim of governmentality. Prado (2002) attributed the success of this storytelling technique to a European tradition: medieval inquisition in public, which means the ritual of viewing torment, suffering, and humiliation at a certain distance in the public space.

Reality formats have never been absent from public television services. Apart from the charity programs and dating programs in the 1990s, in 2001, La 1 launched an original Spanish talent show *Operación Triunfo* (*Operation Triumph*)<sup>2</sup>, which combines singing competition and surveillance of the

---

<sup>2</sup> A similar format, *Star Academy*, was premiered in France two days before the

contestants' training lives. In public television services, reality formats not only aim to compete with private television but also afford pedagogical functions and guarantee public interest in culture and entertainment (Cáceres, 2012; Monclús & Vicente, 2017). In Spain's television market, promoting high-quality fictional series and films has been a major commercial strategy of the local pay-TV brand Movistar+ and the U.S. pay-TV brands Netflix and HBO (Cascajosa, 2018). Many popular programs of reality television are available on open television channels (Gutiérrez Lozano, 2020).

Table 1 shows the main reality-game formats broadcasted in Spain. A successful format can occupy television screens for decades, and different variations of the same format can be produced. Reality-game formats have mainly originated from European countries and are more culturally compatible than Asian formats. Oliva (2013) argued that the importation of Anglo-Saxon reality formats has brought the neoliberal culture to Spain. Game shows often demonstrate direct relationships among necessary competitiveness to act (want, can, and know), be successful in these actions, and achieve valuable objects. Some formats also bring the ideas of privatization of welfare, but Oliva did not think that they are explicitly legitimized through reality television in Spain.

Format	Spanish Title	Programs (in Spanish)	Broadcast Channel	Emission Years	Original Country/Region
Big Brother	Gran Hermano	Gran Hermano	Telecinco	2000-now	Netherlands
		Gran Hermano VIP			
		Gran Hermano Dúo			
		El Reencuentro			
Survivor	Supervivientes	Supervivientes	Telecinco	2000-now	United Kingdom
		La Isla de los FamosOS	Antena 3		
		La Selva de los	Cuatro		
		Aventura en África			
Star Academy (Operation Triumph)	Operación Triunfo	Operación Triunfo	La1 Telecinco	2001-2011, 2017-now	Spain
The Voice	La Voz	La Voz, La Voz Senior, La Voz Kids	Telecinco	2012-2013, 2015-now	Netherlands
			Antena 3		
MasterChef	MasterChef	MasterChef MasterChef Junior, MasterChef Celebrity	La1	2013-now	United Kingdom
The Great British Sewing Bee	Maestro de La Costura	Maestro de La Costura	La1	2018-now	United Kingdom
Got Talent	Got Talent	Got Talent	Telecinco	2016-now	United Kingdom
Your Face Sounds Familiar	Tu Cara Me Suena	Tu Cara Me Suena, Tu cara me suena mini, Tu cara no me suena todavía	Antena3	2011-now	Spain
The best song ever sung	La mejor canción jamás cantada	La mejor canción jamás cantada	La1	2019	Spain
The Mask Singer	Mask Singer: adivina quién canta	Mask Singer: adivina quién canta	Antena 3	2020	South Korea
Sing On! Spain	¡A Cantar!	¡A Cantar!	Netflix	2020	Spain
Fame, Dance!	Fama. Todos a Bailar	Fama. Todos a Bailar, Fama, ¡a Bailar!	Cuatro	2008-2011,	Chile
			#0 of Movistar+	2018-now	
Strictly Come Dancing.	Bailando con las estrellas	Mira quién baila,	La1	2005-2014	United Kingdom
		Bailando con las estrellas, ¡A Bailar!	Antena 3	2018	
Supermodel	Supermodelo	Supermodelo	Cuatro	2006-2008	Spain, United States
The X Factor	Factor X	Factor X	Cuatro, Telecinco	2007-2008,	United Kingdom
Peking Express	Pekín Express	Pekín Express	Cuatro,	2008-2011,	Netherlands, Belgium
			Antena 3	2015-2016	
			LaSexta		

Table 1: Reality-game formats in Spain from 2000 to 2020.

Source: Information during 2000–2008 is adapted from Monclús and Vicente (2009), and information since 2008 is self-elaborated.

### 3.1.4 Twitter in Spain

Twitter is a commercial microblogging system that provides social networking and media functions. Users discuss the current news, issues, and events through Moment, Topic, and Trending functions. It was founded in 2006 in the United States and has become one of the most used social media platforms in the world. The revenue of Twitter is mainly generated from advertisements, the price of which primarily depends on monetizable daily active users (mDAUs) (Twitter Inc., 2020). The business of Twitter relies heavily on advertisements and the market outside of the United States. In the second quarter of 2020, the average mDAUs reached 186 million, of which 150 million were international users. In this quarter, Twitter's revenue totaled \$683 million, of which \$562 million came from advertising (Twitter Inc., 2020b)<sup>3</sup>. In 2019, the annual revenue of Twitter was reported at US\$3.46 billion. The advertising and promotion functions on Twitter are realized by amplifying the visibility of content and targeting consumers through algorithms on the platform:

Our Promoted Product enables our advertisers to launch products and services and promote their brands, amplify their visibility and reach, and connect with what's happening to extend the conversation around their advertising campaigns. We enable our advertisers to target an audience based on a variety of factors, including interest graphs. Interest graphs map, among other things, interests based on who an account follows and actions taken on our platform, such as Tweets created and engagement with Tweets. (Twitter Inc., 2019, p. 6)

---

<sup>3</sup> In the first quarter of 2022, when Elon Mask was negotiating to acquire Twitter, the average mDAUs reached 229.0 million, of which 189.4 million were international users. In this quarter, Twitter revenue totaled \$1.20 billion, of which \$1.11 billion came from advertising (Twitter, 2022).

Apart from the Promoted Product, Twitter also manages partnerships with content owners and providers currently, when videos have become a popular form of content transmission on social media:

Video is an important way to stay informed on Twitter, enabling people on Twitter and content owners to better share experiences, engage in events and converse with broader audiences. We continue to increase reach and engagement for content owners around the world through live-streaming, highlight video clips, and video-on-demand agreements designed to complement the content from people on Twitter and licensed live and on-demand video content already available on Twitter across a number of verticals including sports, news, gaming and entertainment. (Twitter Inc., 2019, p. 7)

Twitter provides a platform for conversations about television programs and constructs networks connected by key influencer nodes related to specific television topics (Macmillan, 2015). Twitter launched the “Movie and TV show targeting” service for advertisers to build strategies upon specific audience groups of movies and TV shows, and this service is available in Spain (Twitter Inc., n.d.). In July 2020, the number of Twitter users in Spain was reported at 7.1 million (Statista, 2020). According to Kantar Media, the relationship between television and Twitter has become increasingly narrow and complex. In 2019, more than 3 million users in Spain posted content related to television programs on Twitter. The most argued program was *Debate Electoral*, a political debate in which the candidates of the general election of Spain in 2019 participated. Additionally, reality and factual entertainment were the most popular television genres discussed on Twitter. Kantar reported that more than 32 million Tweets related to reality shows were posted in Spain in 2019. The most argued reality-game program in 2019 was *OT* (Kantar, 2020).

For example, the program *OT*, launched in 2020, used Twitter to promote its weekly gala and daily monitor contestants' lives in the academy. The hashtag of *OT* was promoted on a trending topic on Twitter in the region of Spain. According to the analysis of the interface, ordinary users, fans, and Tweets that refer to other topics are visible on the first page of the hashtag (Figure 4). On the interface, three Tweets were published by unverified users. The second Tweet was about a feminist political movement in the United States, where "OT" means "Our Vote." The first and second Tweets were related to the program. When we searched the keyword "OT2020," Twitter recommended three official accounts of the contestants (Figure 4). When we entered the official account of *OT*, Twitter recommended the official accounts of @lolaindigomusic and @manuguix on the right side, which are two important casts in the program (Figure 5). The hashtag on Twitter afforded the function of a forum in which audiences, official accounts of the program, and accounts that were not related to the program could participate relatively equally.

Apart from global business and commercial strategies, Twitter is also facing regulations and censorship in different countries and markets. In 2018, the European Union enacted the General Data Protection Regulation<sup>4</sup>, which restricts internet companies from processing natural personal data in the member countries of the European Union. Twitter is also facing censorship and inaccessibility at different levels, according to the requests of governments of different countries.

---

<sup>4</sup> General Data Protection Regulation. <https://gdpr-info.eu/art-1-gdpr/>

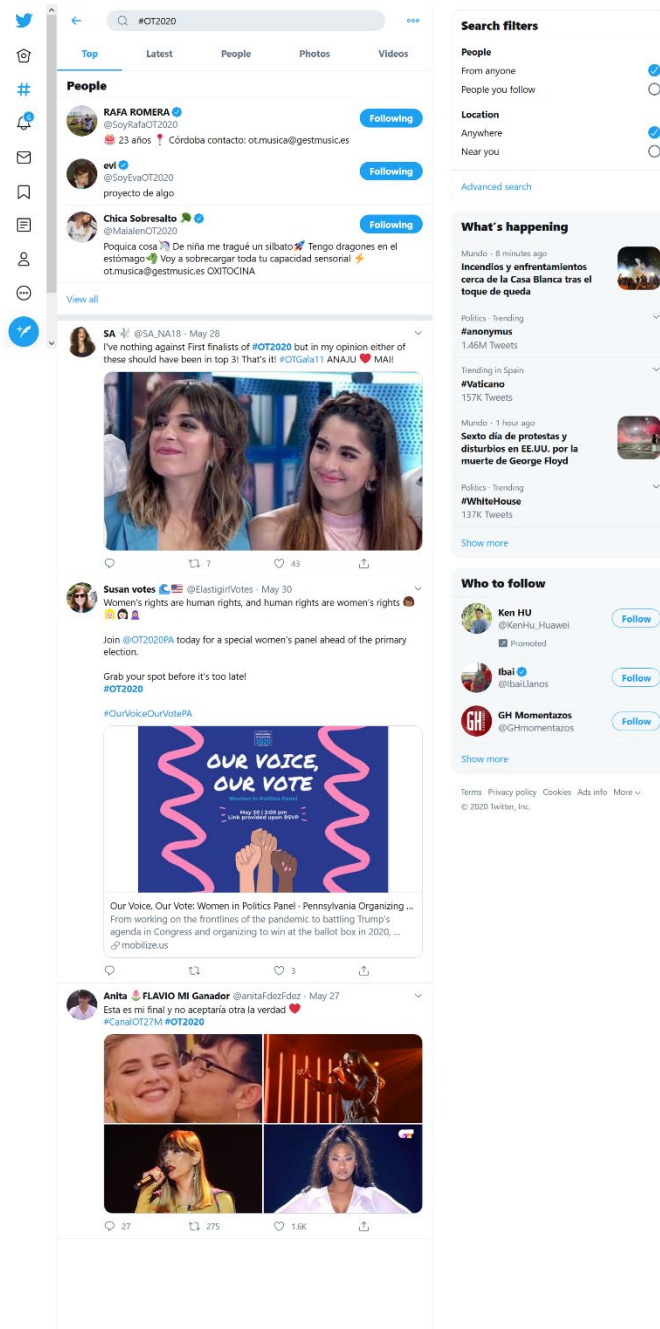


Figure 4: Interface of the hashtag #OT2020  
 Source: Screenshots captured from Twitter during May and June 2020.

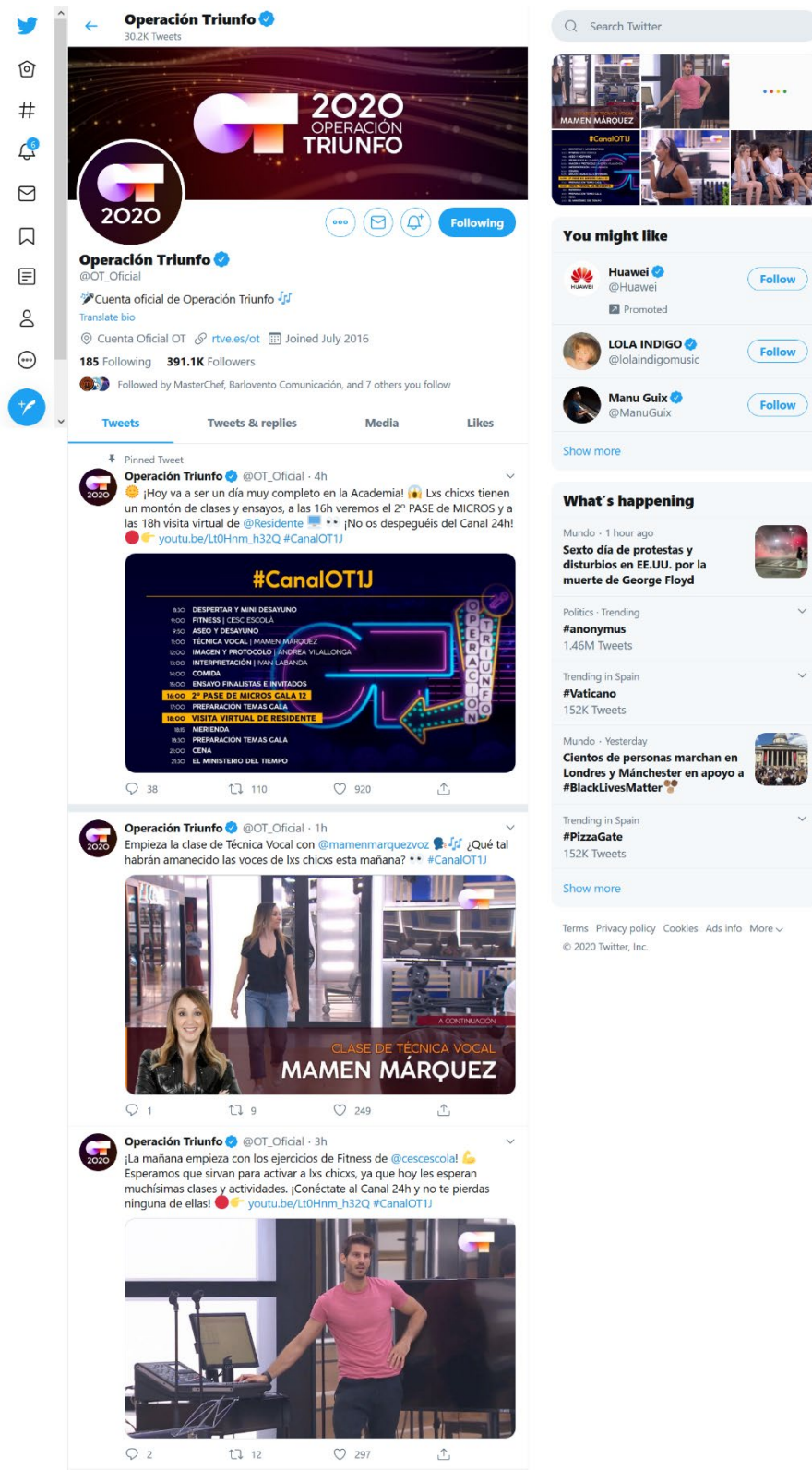


Figure 5: Interface of OT's official account on Twitter  
Source: Screenshots captured from Twitter during May and June 2020.



## 3.2 Media and socio-cultural background in China

### 3.2.1 Neoliberalism in China

Neoliberalism was proposed when liberalism was facing the political and intellectual challenges of socialism and Marxism in the early 20<sup>th</sup> century (Weber, 2018). Thus, whether the Chinese economic model is neoliberal is polemic. So and Chu (2012) thought that the neoliberal model applied in China is different from the model promoted in the Washington Consensus and the “embedded neoliberalism” applied in Europe, but the Chinese government did “set up institutional frameworks to guarantee private property rights and promoted free markets and free trade” (p. 187). Instead of arguing whether the political–economic model in China is neoliberal, Weber (2018) explained why neoliberalism is relevant to China. Economic reforms in China are not entirely products of neoliberalism, neither has China embraced neoliberalism. However, the Reform and Opening-up initiative “allowed China to be integrated into the global neoliberal order” (p. 227). Mainstream ideas were transferred from political determinism to economic determinism, and material production was shifted from self-sufficiency to a deeper social division of the labor market (Weber, 2018).

The planned economy brought a deep crisis in China. After ending the Cultural Revolution in 1976, the Chinese leadership applied the Reform and Opening-up policies at the end of the 1970s, which introduced neoliberal ideas in this country. In the early years, China underwent decollectivization to a certain extent around rural places (So & Chu, 2012). Under this reform, the responsibility for agricultural production output was transferred from the commune to the household, but ownership of land was not privatized. This reform encouraged entrepreneurship in rural areas and increased productivity by stimulating individual interests (Weber, 2018). The reform also forced peasants who lost their collective benefits to find jobs in cities, which led to their proletarianization (So & Chu, 2012).

During the 1990s, China deepened neoliberalism in the forms of privatization and corporatization, the commodification of human social services, and deepening the liberalization of global trade (So & Chu, 2012). Economic development had both positive and negative effects on the socio-cultural level. “China witnessed a historically specific self-conscious enthusiasm for coherence through the search for novel cosmopolitan humanity” (Rofel, 2007, p. 13). The reform also “enhanced ordinary citizens’ sense of the new possibility that lay within their reach but also increased frustrations with the new social inequalities” (p. 7).

Although state entities still play a crucial role in the economy, lifelong employment and job security were reduced to enhance productivity and efficiency in state enterprises. The privatization and corporatization of state enterprises also led to the tide of workers’ lay-offs. The progressive opening-up around coastal cities generated uneven spatial development between coastal and inland regions and between urban and rural areas. Since the communist party still claims to represent the workers and peasants, the neoliberal ideas that assault these groups are incompatible. The so-called “state neoliberalism” has been applied since the 21<sup>st</sup> century, which aims to rebalance and emphasize economic development and to reduce social inequality and the gap between urban and rural areas (So & Chu, 2012).

In 2015, the Chinese government promoted the initiative “Mass Entrepreneurship and Innovation by All” (大众创业万众创新) “for economic restructuring and improving or resolving the tension between traditional commercial and government practices and the urgent need to encourage innovation and new venture creation in China” (Ahlstrom et al., 2018, p. 304). Nowadays, with the development of the Internet and information society, neoliberalism is emphasized in Chinese society and social imagination through collective storytelling about the contribution of entrepreneurs to the innovation of technologies. The stimulation of entrepreneurship and innovation generates abundant leisure products in the information industry and boosts consumerism, which takes place in technological nationalism (Wu & Yun, 2018).

The neoliberal economic model in China is unique. Economics is “a major tool of governance in China” (Weber, 2018, p. 229). Both the invisible hand of the market and the visible hand of the government have actively shaped economic development in China. The state entities participate in the market not as active competitors but rather as facilitators, which is demonstrated through the broadcasting system in China. The intervention of government and collectivism, which contradict neoliberalism, plays a crucial role in China, while market competition is still intensive, as in other neoliberal countries (Weber, 2018). In addition, because the Marxist and Communist ideologies are harder to legitimize now than in the era before the Reform and Opening-up, nationalism, based on common cultures and traditional heritages, has been mobilized into the neoliberal economic project, which claims to have made the country powerful (So & Chu, 2012).

### 3.2.2 Television system in China

In China, television has been a propaganda instrument since this technology was introduced in 1958. Under the strategy of “channel before content,” television stations in China were constructed to reach the masses and transmit political information from the center (Keane, 2015). The role of television was modified in the 1990s, when the commercial model was encouraged, and the cultural industry was officially defined in China. The tension among commercial, political, and pedagogical functions, as well as that between public and private interests, was evident. On one hand, central supervision and censorship in the television system and content were reinforced by the National Radio and Television Administration (NRTA)<sup>5</sup> and Publicity Department of the Central Committee of the Communist Party of China. On the other hand, the freedom to innovate was gained popularity in the local and commercial scopes. Many programs from local television groups

---

<sup>5</sup> Known as State Administration of Press, Publication, Radio, Film and Television (SAPPRFT) during 2013–2018 and as State Administration of Radio, Film, and Television (SARFT) during 1998–2013. In this thesis, We use NRTA to refer to the same administration in different periods.

and private production companies fit audience interests and stimulated market competition (Keane, 2015).

“Television stations are essential *de facto* state-owned enterprise” (Keane, 2015, p. 15), and their management is state-controlled. Since the 1990s, corporate investment with both public and private capital has been allowed, and enterprise models for content production have been encouraged (Chin, 2017; Keane, 2015; H. Zhang, 2011). Approximately 300 television stations, which are distributed according to administrative regions from central to counties, are being operated in China. The principal players in the Chinese television industry are the central station, China Central Television (CCTV), and provincial and municipal television stations. Of these, the most influential player is undoubtedly CCTV, whose network of 16 free-to-air channels and 14 pay-TV channels covers the whole country. In 2016, the China Global Television Network was launched, which was formerly known as CCTV International. This television network distributes nine channels in five foreign languages, targeting overseas audiences to achieve the mission of international communication. At the provincial and municipal levels, generally, each province owns one satellite general-interest channel, which covers the whole country, and numerous thematic territorial channels, which cover each province, city, or county. Some provinces or municipalities launched extra satellite channels, such as Golden Eagle Cartoon Satellite TV and Shenzhen Satellite TV.

However, as Keane (2015) indicated, “the reality of the Chinese broadcasting landscape is that a small number of well-resourced satellite channels dominate the market” (p. 17). From 2014 to 2018, the CCTV network occupied approximately 30% of the market share, and provincial satellite channels together took approximately 27% of this figure. Territorial channels at the provincial and municipal levels were lower than the leading players, taking approximately 19% and 7%, respectively (Li & Hu, 2019, p. 79). Since 2000, conglomerate strategies have been applied to local television stations, which are consolidated into media groups managed by local governments. These media groups needed both local

and central permissions if they wanted to expand their cross-regional business (Keane, 2015, p. 114).

With deepened marketization and the challenge of new media, the implementation of commercial strategies in television groups became important. Some television groups created their brands and started targeting specific audience groups across the country (p. 126). In recent years, four provincial television groups have dominated the market, the satellite channels that always occupy the top ranking. According to CSM Media Research, in 2019, the four provincial satellite channels—Hunan Satellite TV, Zhejiang Satellite TV, Jiangsu Satellite TV, and Dragon TV (based in Shanghai)—led the annual all-day rating rank (CSM Media Research, 2020).

The concept of “public service broadcasting,” which is defined as independent from political or commercial interests, did not enter China until the middle of the 2000s. This notion has received little consensus in China because it is difficult to apply European concepts of citizenship and public interests in Chinese society (Chin, 2017). The Communist Party implements the idea of public services to “push back against the uninhibited commercialization” in the media industry and to guarantee social stability and cohesion (p. 144). Public services are also provided by state-owned broadcasters, funded by central and local governments, private investment, and profit from commercial content. There is no clear boundary between public and commercial content programming. As part of public services, infrastructure and funding, together with regional territorial television stations, have reached rural areas and ethnic minority communities. Chin (2012) criticized that the public broadcasting project is implemented by the “pragmatic end of social stability and cohesion than by moral or humane concerns for the development of citizens” (p. 908). High-quality public service programming, which serves democracy, culture, and social inclusion, is absent in China (Chin, 2017).

In the Chinese television industry, private companies mainly provide content production and OTT services. Since private investment and inside enterprise groups were allowed in broadcasting groups, many entrepreneurs have quit

state-owned entities and started private production companies, which need to obtain licenses from the government. Because of their commercial setting, private companies can continuously produce successful shows and sell them to broadcasters, while the content copyright is generally owned by broadcasters (Keane, 2015).

The development of the Internet and the economy has changed the media environment. It destroyed traditional political hierarchies in the television system, in which industry boundaries and market positions were well-defined. Chinese television industry has entered a convergence period with the digitalization of communication technologies and the modification of interfirm alliances (Keane, 2015). Online video platforms have emerged and challenged the traditional television industry. Traditional television groups, such as CCTV and Hunan Satellite Television, have launched online video brands, such as China Network Television (CNTV) and Mango TV. Other broadcasters have also distributed their content on online platforms.

In 2007, a legislation called “Administrative Provision on Internet Audiovisual Program Service” framed the issues of licensing and copyright. Moreover, it “intended to appease both the international community and extend domestic ideologic control online” (Keane, 2015, p. 147). In 2015, “Internet TV Service Management Specification” and “Internet TV Integration Business Management Specification” regulated OTT service operators. “Each Internet TV must be bound with the integrated business license before it can be sold. The integrated business license authority (OTT license manufacturer) shall verify the legitimacy of the Internet TV program services platform it links to” (Z. Li & Sun, 2019, p. 162). NRTA issued only seven internet TV licenses (Table 2), which were held by state-owned traditional central or provincial broadcasting groups. This means that if private content providers want to broadcast programs on television through the Internet, they should make commercial alliances with corporations created by these state-owned internet TV license holders.

Keane (2015) identified 12 main OTT content providers in China. However, during a few years of market competition and policy regulations, only three providers dominated the online streaming video market. Online audiovisual users in China reached 725 million in 2018. User penetration of leading audiovisual platforms Youku, iQiyi, and Tencent Video occupied 80.2% in total. Mango TV and Bibibili, which are located in the second echelon, occupied 9.2% of user penetration (China Netcasting Services Association, 2019). Three dominant private internet corporations in China, Alibaba, Baidu, and Tencent, are the main shareholders of Youku<sup>6</sup>, iQiyi, and Tencent Video, respectively. The business models of these three dominant video platforms are different from those of U.S.-based streaming video platforms, such as Netflix. These three platforms combine professionally produced content and user-generated content. Professional programs include self-produced content, content from other private productions, and content distributed by traditional television. In terms of business models, advertisements, premium services, and transactional purchases are applied together (W. Y. Wang & Lobato, 2019). Taking an example of iQiyi, in the first quarter of 2020, the revenue of the premium services reached 4.6 billion Yuan (654.5 million US\$), online advertisement revenue was 1.5 billion Yuan (217 million US\$), and content distribution occupied 602.8 million Yuan (85.1 million US\$) (iQiyi, 2020). Consumer habits of subscription and paying for content are still being cultivated in the Chinese market. The users who paid for online videos reached 347 million in 2018, which amounts to approximately 40% of Chinese internet users (Xinhua, 2019). Thus, the income from premium services has increased drastically in recent years, while advertisement still takes a considerable part of iQiyi's revenue (iQiyi, 2020).

As streaming video platforms cross the boundaries of the Internet and broadcasting system, their regulations are not only under NRTA but also under the regulating bodies of Internet and culture: Cyberspace Administration of China, the Ministry of Industry and Information Technology, the Ministry of Culture, and the Central Cybersecurity and Informatization Commission<sup>7</sup> (W. Y. Wang &

---

<sup>6</sup> Also known as Youku Tudou

<sup>7</sup> Formerly known as Cyberspace Affairs Council of China.

Lobato, 2019). Wang and Lobato (2019) showed that, compared to the U.S.-based platforms, video streaming platforms in China, such as iQiyi, are not extensions but rather “disruptors” of the broadcasting system. These platforms apply more mass media logic, “capturing the national mood, agenda-setting, and providing a shared set of cultural material to all viewers” (pp. 366-367); a highly personalized recommendation is not relevant.



Internet TV license holders	Traditional broadcasting group	Content provider partner	The main shareholder of the content provider
Galaxy Internet Television	China National Radio and Jiangsu TV	IQiyi	Baidu
CIBN	China Radio International	Youku	Alibaba
ICNTV	China Network Television	Tencent Video	Tencent
Happy Sunshine	Hunan TV	Mango TV	Mango Excellent Media
Southern Media	Guangdong TV	Tencent Video	Tencent
Wasu Media	Zhejiang TV	Youku	Alibaba

Table 2: OTT commercial alliances in China.

Source: Information is based on Wang and Lobato (2019) and CBN (2015). Washu and Youku contracted a partnership in 2018. <https://www.wasu.com.cn/jtxw/7514.jhtml> (in Chinese).

### 3.2.3 Reality television in China

Since the 1980s, Chinese television has learned production models from other countries, but the concept of format did not become widely recognized until the 2000s. Reality television was previously known as variety shows (综艺), which included non-fictional entertainment content, games, quiz shows, talk shows, and artistic performances emphasizing the characters of celebrity casts instead of ordinary people (Cho & Zhu, 2017). Both Chinese academic literature and industry widely recognize this notion. *Zhengda Variety Show*, a format adapted from Taiwan and broadcasted on CCTV for three decades, represents the relevance of this concept in the Chinese television market (Keane, 2015, p. 93). An increasing number of reality formats entered the Chinese television industry around the 2000s, and the concept of reality show/reality television became famous. Reality formats belong to the genre of variety shows. Several key points of reality television in China have been identified in the literature (Keane & Zhang, 2017; Luo, 2010; L. Yang, 2013). First, a relevant ideological function of reality formats is applied in entertainment and commercial content. Second, the success of commercialized formats since the 2000s is represented by *Super Girl*. Third, the success of dating formats and intimate relationship formats represents contemporary culture in Chinese society.

The hybridization of commercialization and state ideological apparatus calls the attention from scholars who study television in China. One of the relevant arguments is whether commercialization reinforces or weakens the ideological power of television. Ideologies often intertwine in different dimensions in the “polysemic and hybrid nature of Chinese television discourse” (Zhao & Guo, 2005, p. 534). Some reality programs can represent this phenomenon in China. Li (2013) observed that the commercial production of reality programs on state-owned television does not reduce the government’s repertoire in ideological indoctrination. Li argued that market forces “reinforce the role of the ideological state apparatus by offering more forms and options” (p. 915), and the hegemony of the party-state has been re-established by the implementation of neoliberal elements. Yang (2014) showed that the *Got Talent of China* uses the “underclass

to promote a mirage of good society, patriotic citizens, caring family and everlasting heterosexual love,” corresponding to the “state’s ideological campaign of building a harmonious society.” Yang also criticizes this show and “dismisses the government’s responsibility of redistributing wealth to the most vulnerable sectors of the society” (p. 532). Luo (2010) studied a program called *Great Survival Challenge: Retracing the Long March Route (2001)* (生存大挑战：重走长征路) co-produced by CCTV and Guangdong Satellite Television. Bringing elements in *Survivors*, this format invites celebrities and the ordinaries to replicate the Chinese Red Army’s Long March (1934–1935) during the communist revolution. It also responds to various anniversaries of important events in the history of the Communist Party of China. Luo commented that television in China is supposed to take responsibility as a gatekeeper for the government to maintain socio-political stability facing the impression of audience rating in commercial competition. Professionals in television industry always struggle in maintaining a balance between ideological and entertainment contents.

Although high-quality public service programming is marginalized (Chin, 2012, 2017), pedagogical programs are not absent from television screens. CCTV10, a specialist channel on science and education, has produced some programs related to Chinese history and traditional culture, which have attracted audience attention (Keane, 2015; Lin, 2019). As mentioned before, nationalism based on common cultures and traditional heritage was reinforced and legitimized by the government after neoliberalism was introduced in this country (So & Chu, 2012). The promotion of traditional culture and history corresponds to an overlapped area of guaranteeing pedagogical function and social cohesion in the sense of public broadcasting services and ideological propaganda under authoritarian rules.

Chinese talent competition started in 1984 when the first *Young Singer Contest* (青年歌手大奖赛) was launched on CCTV. Despite the high singing skills of the contestants, this format did not achieve commercial success because the production model did not fit young audiences in either commercial market. After being broadcasted for 15 seasons, this program ended in 2013 (Yang, 2014). The

first eruption of commercial talent game shows in China occurred around 2005. *Super Girl (2005)*—on Hunan Satellite Television, the Chinese version of *Pop Idol*—provoked a wide range of social discussions, which was seen as an influential social phenomenon in this decade.

There are several reasons why *Super Girl* attracted viewers' attention. Like similar formats in many countries, this program targets young audiences. It provides opportunities for girls who have dreams to be singers and to become famous through competitions, which include casting in various regions in China, weekly galas, and final events nationwide. This storytelling model, through commercial production and promotion, strongly engages mass participation in the content and boosts online and offline affective fandom activities in China. One of the influential collective fandom activities is voting through SMS. In 2005, "8 million SMS votes, at most 600,000 SIM cards" were recorded in the final gala (Yang, 2014, p. 524). The massive voting and competition rules led not only to fans' discussions on the abilities or appearances of contestants and the fairness of the competition but also NRTA-restricted audience voting in the distance to experts and spectators voting studios in the following years (L. Yang, 2013). Additionally, in the *Super Girl* of 2005, discussions on femininity were generated in Chinese society because of the winner Chris Lee's "boy-like" appearance.

With this successful experience, Hunan Satellite Television produced *Happy Boy* and *Happy Girl* in the same format until it lost its audience in the 2010. This format was broadcasted only on the online platform Mango TV in 2016 and 2017. Unsurprisingly, the success of *Super Girl* and talent competitions led to the homogenization of entertainment content on television. In 2007, NRTA issued a series of regulations and financial penalties to control the amounts, contents, broadcasting time, and duration of talent competitions on provincial satellite television channels (L. Yang, 2013). Since then, reality formats have hardly been broadcasted in prime time (19:30–22:00). While formats such as *Happy Girl* and *Happy Boy* lost their audiences, other Western talent competition formats, such as *The Voice*, and Korean "idol-raising" (偶像养成) formats, such as *Producer 101*, stimulated audiences' tastes. In recent years, voting activities by fans and

audiences have been allowed outside of studios. Many talent competitions have combined inside and outside studio voting and put voting interfaces on Weibo or video platforms. Some of them require audiences to purchase premium services or sponsors' products to obtain voting rights. The recent regulations enacted by NRTA and China Netcasting Services Association have restricted "paying for voting" in talent competitions and "idol-raising" shows (China Netcasting Services Association, 2020).

In addition to the competition, reality formats that tell stories about private relationships are also successful in China. In the early years, dating/blind dating formats created in Japan became successful in China for decades (Keane, 2015). In recent years, storytelling in reality shows has not only been limited to the ordinaries' dating and relationships but also to celebrities' families, dating, and children. Such formats "would appear to make sense in a Confucian culture rather than winner-take-all-type contests spiced up by conniving among contestants" (Keane & Zhang, 2017, p. 633). They provoke discussions about values in private life, which contain traditional Confucian values challenged by modernity and gender equality at the same time (Jiang, 2019; Keane & Zhang, 2017).

China is a vigorous market for reality formats and variety shows. On one hand, broadcasters continue to receive considerable commercial benefits with reality formats. On the other hand, the government's preoccupation with ideologies, foreign intervention in the television section, and the homogenization of entertainment content have modified and reinforced the regulations (Keane & Zhang, 2017). In recent years, the variety show viewing time on television screens has been descending, and the is being lost from television screens (Q. Wang, 2019).

Many online variety shows have been launched recently. It is reported that 163 variety show programs were broadcasted on online platforms in 2018, and the scale of investment in the market of variety programs reached 6.8 billion Yuan (~US\$983 million) (China Netcasting Services Association, 2019). As mentioned before, a considerable part of the revenue of OTT platforms comes from

advertisements. OTT content providers play the role of extending the Chinese broadcasting system. These can explain why reality programs, which are advertising-favorable, are much more popular on online platforms in China compared to American video streaming platforms, such as Netflix, which rely on subscription models and provide fictional series and movies.

Table 3 lists famous reality-game formats broadcasted in China in the last two decades. Before 2010, when Asian variety shows were popular in China, the so-called reality-game formats mainly came from the Western world. Western super formats, such as *Survivor (US)*, *Big Brother (Holland)*, and *Pop Idol (UK)*, entered the Chinese market, but only one of them gained commercial success—*Pop Idol* (Chalaby, 2011, 2012; Keane, 2015, pp. 85-86). *MasterChef* was also broadcasted in China, but it did not win a high audience rating. Keane (2015) attributed this to the difference in gastronomic cultures between China and the West: in China, a chef is nothing more than a cook being excluded from the upper social class, while in the Western culture, being a chef is a dream profession for many citizens. Due to cultural and geographical factors, China adopted many formats from Japan, which is the first Asian country to recognize the value of formats, and from South Korea (Keane, 2015).

In recent years, Korean formats, which share similar traditional and popular cultures with China, have become increasingly popular (Cho & Zhu, 2017). In China, both licensed and unlicensed adaptations of global formats exist, which does not directly relate to the quality and success of programs. It is widely claimed that the protection of intellectual priority is not valued enough in China's content production market. Moreover, the competition in the television market is intensive on one hand; on the other hand, NRTA's regulation restricts each satellite television channel to importing only one foreign format each year (Keane & Zhang, 2017). Because of this complex circumstance, broadcasters kept high audience programs, changing the titles of formats and copying unlicensed formats. Furthermore, in recent years, the development of reality television in China and the incitement of entrepreneurship in the market of content production have

encouraged the production of original formats, such as *I Can I BB*, *The Sound*, and *the Big Band*.

Format	Title in Chinese and English	Broadcast Channel	Emission Years	Original Country
Survivor	走入香格里拉 Into Shangrila	Sichuan TV	2001-2002	United Kingdom
	生存大挑战 The Great Survival Challenge	Guangdong TV	2000-2005	
Big Brother	完美假期 Perfect Holiday	Hunan Economic Television/Mango TV	2002, 2015, 2016	Netherland
Star Academy	明星学院 Star Academy	Hunan Economic Television	2014-2015	France/Spain
I am a Singer	我是歌手 I am a Singer/ 歌手 Singer	Hunan Satellite TV/ Mango TV	2013-2020	Korea
Shall We Dance	舞林大会 Let's shake it /新舞林大会 Shake It Up	Dragon TV/ Youku	2006, 2008, 2011, 2012, 2018	Australia
So You Think You Can Dance	舞林争霸 Super Dive	Dragon TV/ Iqiyi	2013	United States
The Biggest Loser	超级减肥王 The Biggest Loser	CCTV2	2013	United States
The Apprentice	赢在中国 Win in China	CCTV2	2006-2008, 2017	United States
The X Factor	中国最强音 The X Factor China	Hunan Satellite TV/ Mango TV	2013	United Kingdom
The Voice	中国好声音 The Voice of China/Sing! China	Zhejiang Satellite TV	2012-now	Netherland
	中国好歌曲 The Song of China	CCTV	2014	
Britain's Got Talent	中国达人秀 China's Got Talent	Zhejiang Satellite TV	2010-2014, 2019	United Kingdom
Pop Idol	中国梦之声 Chinese Idol	Dragon TV	2013-2014	United Kingdom
	超级女声 Super Girl/ 快乐男声 Happy Boy/快乐女声 Happy Girl	Hunan Satellite TV/Mango TV	2004-2017	
Running Man	奔跑吧兄弟 Running Man	Zhejiang Satellite TV/IQiyi	2014-now	South Korea
Infinite Challenge	极限挑战 Go Fighting	Dragon TV/ IQiyi	2015-now	South Korea
Produce 101	偶像练习生 Idol Producer /青春有你 Young With You	IQiyi	2018-2021	South Korea
	创造101 PRODUCE 101/创造营 Produce Camp	Tencent Video	2018-2021	South Korea
Mask Singer	蒙面歌王 King of Mask Singer/蒙面唱将 Mask Singer	Jiangsu Satellite Television/Youku	2015-now	South Korea
I Can I BB	奇葩说 U Can U BiBi/ I Can I BB	IQiyi	2014-now	China
Show Me the Money	中国新说唱、中国有嘻哈 The Rap of China	IQiyi	2017-now	South Korea
ROCK & ROAST	脱口秀大会 ROCK & ROAST	Tencent Video	2017-now	China
The Big Band	乐队的夏天 The Big Band	IQiyi	2019-now	China
Sisters Who Make Waves	乘风破浪的姐姐 Sisters Who Make Waves	Mango TV/Hunan Entertainment TV	2020-now	China



Table 3: Reality-game formats in China from 2000 to 2020.

Source: Information from 2000–2014 is mainly adapted from Keane (2005, pp. 92-93), and the remaining information is elaborated by the author.

### 3.2.4 Weibo in China

China's internet ecosystem is independent of the U.S.-based ecosystem (van Dijk et al., 2018). Although some internet companies are expanding their business beyond the Chinese market, U.S.-based platforms, such as Twitter and Facebook, cannot be directly accessed in the Chinese Mainland. When Weibo was launched in 2009, it was known as the Chinese version of Twitter. The Chinese political-economic system shapes the characteristics of this privately owned social media platform and makes it distinct from Twitter. Weibo is under the supervision of the Chinese government and administrations, such as the Cyberspace Administration of China, the Ministry of Culture and Tourism, and NRAT; however, both Weibo and the Chinese internet ecosystem ought to be understood beyond censorship. Fuchs (2016) argued that, with the development of the social media economy, repressive state power and market control exist in both China and the Western world. Instead of focusing on the authoritarian or democracy or political or entertainment dichotomy, G. Yang (2014) suggested deeply studying the ambivalent and complex actors involved in the Chinese internet.

Sina Weibo is, first, a commercial microblogging service platform. Within the political environment and market competition in China, Weibo actively monetizes its public function through advertising, marketing, and reaching partnerships with Alibaba (L. Zhang & Zhang, 2018). Similar to Twitter, a substantial majority of Weibo's revenue is generated from advertising and marketing, which is directly related to the number of active users on the platform. In 2019, the annual revenue was reported at 1.7 billion US\$, of which the advertising revenue was 1.5 billion US\$. The average DAUs reached 222 million in December 2019 (Weibo, 2020, p. 3). In its financial report, Weibo emphasizes the strategy of providing "interesting and useful" content and encouraging content providers, celebrities, influencers, and media organizations to "express their views and share interesting and high-quality content." Weibo also recognizes functions that include trends, search, short videos, live streaming, and interest-based information feeds that have been developed to "generate more user traffic and engagement" (Weibo, 2020, p. 6).

Weibo has actively engaged with the television industry in China. One of its strategies is to construct a tri-partied alliance among reality television programs, sponsors of the programs, and Weibo. Weibo can control the visibility of information and accounts related to a television program on the platform and is plugged in voting systems for talent shows and the Weibo Variety Show Ranking (微博综艺排行榜) to evaluate trending topics among variety shows and reality television programs broadcasted in China. The convergence of Weibo into the television industry has consolidated the power of this social media platform in China.

Taking the example of *Young with You* (YWY) launched in 2020, Weibo provided specified hashtag interfaces (Figure 7) and a voting system (Figure 6) on the platform to promote the program. The principal sponsors' advertisements, audience engagement links, and the official accounts of the program and the sponsor were integrated into the page of the hashtag #青春有你# (Young with You) (Figure 7). The hashtag was not limited to a forum for users to talk about the program on Weibo; it afforded the function of an advertising campaign for the sponsor and a program in which ordinary users and audiences engaged. Moreover, the neoliberal value was explicitly manifested in the interface. A slogan was attached near the official account of YWY, saying "The harder you work, the better you will be" (越努力越幸运) (Figure 7). It manifests the neoliberal value of self-improvement and achievement in the commercial market, which also overlaps with the value of "positive energy" promoted in society by the Chinese government<sup>8</sup>.

---

<sup>8</sup> The program YWY and another program of the same format, *Produce Camp*, as well as their voting and ranking interface on Weibo, were canceled by the government in 2021. This is because the voting rules required fans to buy yogurt from the sponsors, which provoked fans to waste a large quantity of yogurt. Along with other scandals related to the entertainment and television industry on Weibo, these called governments' attention and regulation in this year.

The collaboration between Weibo and television organizations is not limited to reality television programs. Similar commercial strategies have also been applied to fictional series and film promotion. Apart from monetizing public discussion and attention on entertainment content, Weibo also participates in political propaganda promoting national ritual events, such as the National Day Parade. The platform and its algorithms are controlled by both political and commercial power in China, while digital activism and grassroots communities are also active on Weibo and other social media platforms in China (H. Wang & Shi, 2017; G. Yang, 2014).

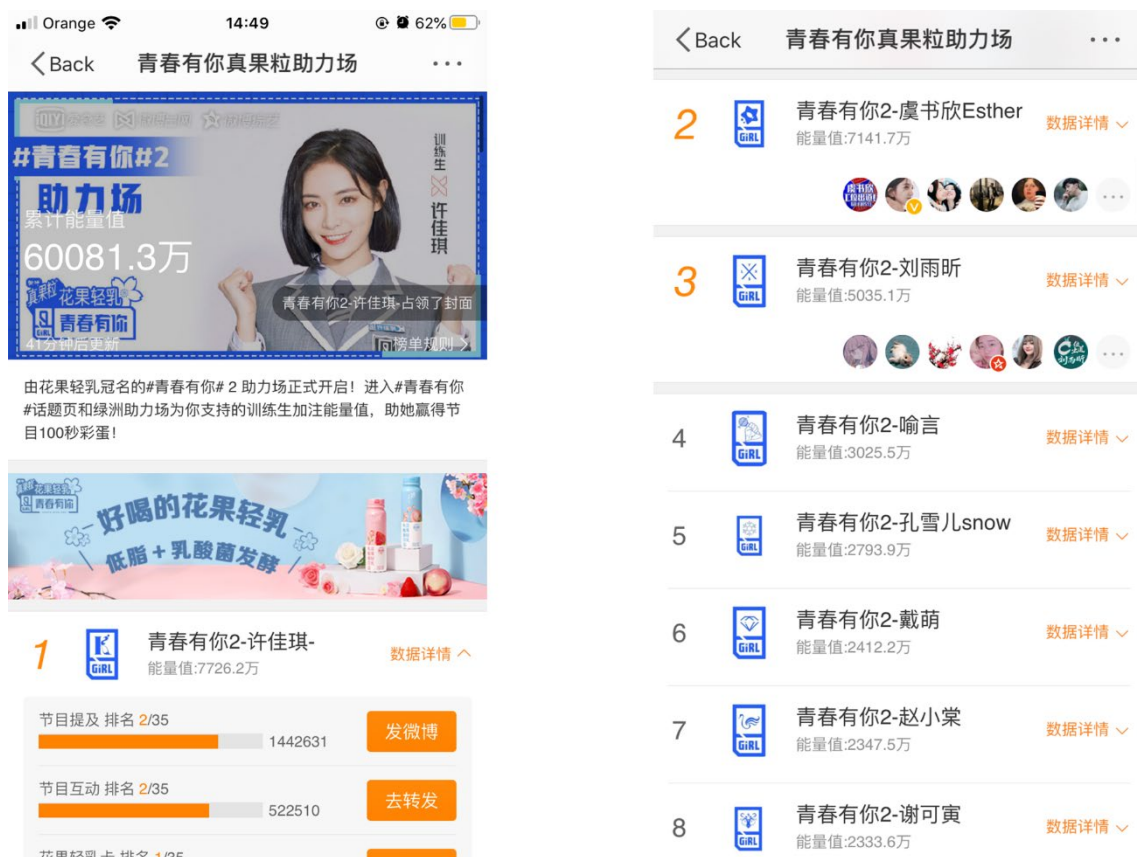


Figure 6: Voting system and competitors' rankings on Weibo  
Source: Screenshots captured from Weibo during May and June 2020.



Figure 7: Interface of the hashtag #青春有你# (Young with You) on Weibo  
 Source: Screenshots captured from Weibo during May and June 2020.

### 3.3 Conclusion

With the flow of globalization, neoliberalism was introduced in both China and Spain in the last years of the 1970s. Spain applied the model of embedded neoliberalism through the process of normalization and integration into the European Union. The economic crisis forced the Spanish bipartisan government to reduce the role of state welfare, which generated social inequality and provoked anti-hegemonic socio-cultural movements. China applied neoliberal economic ideas under authoritarian governance. Economic reforms since the 1970s have challenged the collectivist production model. Entrepreneurship and tech-optimism have been significantly emphasized through top-down initiatives in recent years. However, in China, the neoliberal culture has been interpreted within collectivist and nationalist storytelling. In both China and Spain, neoliberalism has constructed hierarchical societies based on competition and admiration for winners and authorities. The neoliberal culture, which includes individualism, competition in the form of existence, technocratic, self-responsibility, self-investment, and self-development, is widely spread around both territories.

Political power actively intervenes in the broadcasting systems in China and Spain, while such penetrations remain at different levels in these two countries. Similar to other European countries, public and private televisions are distinct in Spain. Public television is supposed to complete its mission of public services without losing audience attention, while the television market is divided by a private duopoly. In China, television stations are state-owned, with commercial activities allowed, which stimulate market competition. Public services can hardly be defined on an institutional level or content programming. Private media entities have erupted in the last 10 years, which often occupy content production and OTT services.

In recent years, online streaming platforms have challenged the traditional television system. In Spain, the online streaming video platforms are influenced

by the local pay-TV model and the subscription model of Netflix. With the subscription model, these platforms pay more attention to producing high-quality fictional content. In China, online streaming platforms form a part of the broadcasting system because of regulations. Consumers in China were not used to paying for content. These factors make a considerable part of platforms' income rely on advertisements, although an increasing number of users have become willing to pay for content in recent years. Thus, profit-favorable formats of reality television play a crucial role in online video platforms in China.

Reality television emerged around the 1990s, and global formats of reality games have become popular since the 2000s in both markets. Western formats, such as *Big Brother*, *Survivors*, and *Pop Idol*, achieved long-term success in Spain, while formats from Korea and Japan are more welcomed in China. However, one of the sub-genres is culturally and commercially compatible in both China and Spain—talent competition shows, which involve the core neoliberal value of improving one's skills and talents in popular culture to win a competition. Meanwhile, formats that focus on private relationships received less consensus in these two television markets. *Big Brother* and *Survivors* have been successful for decades in Spain but have failed in China. In terms of the narrative of private life in reality television, Korean formats, such as *Dad, Where Are We Going?* (parents-children), and *We Got Divorced* (divorced couples), are successful in China. Compared to *Big Brother* and *Survivor*, these formats alleviate interpersonal scheming and conflicts but enhance harmony in intimate relationships.

The reason behind this is attributable to neoliberalism *per se*. Neoliberalism is, first, an idea that supports international free trade; welfare guarantees or government intervention are modified depending on political power in different countries. The personal and private spaces are less impacted by the global flow of neoliberalism compared to the market and public space. Intimate relationships and private life evolve into more local cultures. Reality formats that contain more stories about private life— such as *Big Brother*, *Dad*, and *Where Are We Going?*—are less culturally compatible between the Western and Eastern worlds.

However, formats focusing on (market) competition and self-improvement of talent and skills based on globally compatible popular culture, such as *Master Singer*, *Pop Idol*, and *OT*, are more culturally compatible across the Western and the Eastern worlds.

In addition to neoliberal values in commercial formats, reality television also affords a part of political values in both countries. In Spain, reality programs in public services also promote the values of public interests. In China, the idea of a state apparatus in political and ideological propaganda is applied in the production of some reality television programs. An overlapped area in China and Spain is the interpretation of national and traditional cultures in reality television to guarantee the integrity and social stability of both countries.

Twitter and Weibo are two commercial microblogging services based on similar business models. Both intend to monetize DAUs to advertise traffic and income. Their activities are regulated by laws in different markets. On one hand, they use algorithms to promote the visibility of specific information and analyze users' tastes. On the other hand, they achieve partnerships with content providers and advertisers. For Twitter, business in Spain is only a part of its overseas business. The collaboration between Twitter and broadcasters in Spain is limited to promoting visibility on trending topics, accounts, or Tweets (Figures 4 and 5). Meanwhile, China is the main market of Weibo. Weibo actively commercializes its public function under authoritarian regulations. The techniques Weibo uses to promote television programs in China are more complicated. In addition to controlling the visibility of information related to the programs, Weibo also achieves a tri-partied alliance among broadcasters and sponsors (Figure 7), designing a special interface for programs and inserting a voting system (Figure 6).

In terms of the second screen of reality television programs, the affordances of Twitter in Spain and Weibo in China are different. Such a difference is relevant on the interfaces of hashtags of television programs. On Twitter, the hashtag afforded the function of a forum in which audiences, official accounts of the



program, and accounts that were not related to the program could participate relatively equally. On Weibo, the hashtag was not limited to a forum for users to talk about the program; it afforded the function of an advertising campaign for the sponsor and the program in which ordinary users and audiences were engaged.

# **Chapter 4 Research Questions and Methodologies**

## **4.1 Research questions**

In Chapter 2, we applied the theory of media rituals and conceptualized that social media, as the second screen of television, form an extended part of media rituals created by reality television. In media rituals, specific values and ideologies are framed. In this chapter, we consider neoliberalism as an ideology embedded in the genre of reality talent competition programs. This genre of television demonstrates the glocalization of neoliberalism in non-Anglo-American countries. By applying computational methods to the text contents on social media, Weibo and Twitter, the empirical part aims to measure the features of neoliberalism, as cultural values, through discussions about reality talent competition shows in China and Spain. As we concluded in the theoretical framework, in this research, neoliberalism as an ideology in reality television includes individualism, competitiveness, entrepreneurship, and self-improvement. Reality television widely contains values such as judgment from external authority, team conformity, shame, and exposure.

To compare the localization of neoliberalism in reality television programs in Spain and China, whose social and cultural backgrounds are different, we selected a specific genre of reality television: reality talent competition shows. As discussed in Chapter 3, following are the reasons behind this selection: 1) this television genre has achieved global and long-term success in both Western and Eastern television markets recently; 2) the narrative of competition and idol production is closely linked to the neoliberal model of production in the cultural

industries and, widely, the commercial societies in China and Spain. We propose four research questions for this empirical study.

*RQ1: How is the prevalence of neoliberalism in the discussions about these two reality talent competition programs on social media?*

*RQ2: What are the similarities and differences in the prevalence of neoliberalism between the two cases of China and Spain on the two social media platforms Twitter and Weibo?*

In the hierarchical design of social media platforms (van Dijck, 2013a), such as Twitter and Weibo, users are labeled as verified users and unverified users. The platform often verifies the identity of influential users, including organizations, celebrities, and influencers, and attaches a logo of “V” to the users’ profiles. Twitter defines verified users as “an account of public interest is authentic”<sup>9</sup>. Weibo clarifies that “in order to avoid confusion of identities and public misunderstanding, Sina Weibo implements identity verification policies for individuals and organizations”<sup>10</sup>. Both platforms emphasize that the verified account needs to be “famous,” “notable,” and “authentic.” Unverified users are often anonymous on their profiles and less influential on the platform. Thus, we propose the third research question.

*RQ3: How do verified and unverified users on Twitter and Weibo engage in the discussion on the reality television program in each case?*

*RQ4: How do discussions on social media vary according to the content of each episode on the television screen in each case?*

---

<sup>9</sup> <https://help.twitter.com/en/managing-your-account/about-twitter-verified-accounts>

<sup>10</sup> [https://help.sina.com.cn/i/349/1033\\_12.html](https://help.sina.com.cn/i/349/1033_12.html). In this research, we do not distinct the individual verification and organizational verification on Weibo.

## 4.2 Two cases from Spain and China

### 4.2.1 Operación Triunfo (OT)

Replying to the success of *Big Brother* on Telecinco, TVE1 (La 1) launched a singing competition, *OT*. After maintaining success in audience rating for several years, this format faced limitations in market competition. Because of RTVE's role in public services, they could not exaggerate confrontations and humiliations in competitors' private lives in storytelling, which was a key strategy for guaranteeing audience attention in reality formats in private television. This strategy was applied when the format was broadcasted on the private television Telecinco from 2005 to 2011. *OT* was suspended in 2011 because of losing audience rating, and it returned to La 1 in 2017. *OT* is a format that targets youth and teenagers. It has been a multi-platform and cross-media program since the creation of the format. Similar to *Big Brother*, it provides 24-h surveillance of the contestants' lives in an "academy" through the Internet. Since 2000, audiences can vote for the contestants through mobile text messages. Participants, teachers in the academy, and fans comment and interact on internet platforms, the official mobile application, and the official web (Monclús & Vicente, 2017). Because of its advantages on cross-media, in 2019, this program ranked 7<sup>th</sup> of the top 10 most commented TV programs on Twitter in Spain's market, with 328.482 Tweets posted (Kantar, 2020).

#### 4.2.2 Young with You (YWY)

The Western format, which combines monitoring life in academy and talent competition, gained success in China in the 2000s with the monumental television events of *Super Boy* and *Happy Girl*. After the Chinese versions of *Pop Idol*, *Super Boy*, and *Happy Girl* lost their audiences, the “idol-raising” format of reality talent competition occupied the Chinese market. This South Korean format tells stories about competition and the formation of K-pop girl groups or boy groups. The contestants, called trainees, are young boys and girls who want to become famous. Their formations are often realized by contracting with entertainment companies. Their aim in the program is to form a group of nine girls or boys and to make their “debut” in the group in the finale. Additionally, the competition ranks each individual. The first position in the ranking occupies the central position (C position) in group performances. This format emerges in the context that, first, the Korean Wave has influenced Chinese cultural industries for decades, and second, internet streaming platforms have become the main stakeholder in the production of popular culture (Q. Zhang & Negus, 2020; W. Zhang, 2016). In 2018, Tencent Video got the licensed right for producing the show *Produce 101* in China, and iQiYi also produced a similar program called *Idol Producer* in the same year. In 2019, the name of *Idol Producer* was changed to *Young with You*. In this show, audiences can vote for the contestants, and experts’ decisions can influence the results in each contest. Voting is mainly realized through Weibo and iQiyi. Premium members on iQiyi have one more voting chance each day.

## **4.3 Distinguishing concepts in the interdisciplinary field of computer science and cultural studies**

### 4.3.1 Quantitative analysis of culture

British cultural studies and cultural sociologies, which include quantitative analysis of culture, are increasingly hybridized in the 21<sup>st</sup> century (Inglis, 2016). In British cultural studies, text analysis is an approach to understanding ideologies embedded in the words and produced by economic and political power relations in the super-structure (Hall et al., 1980). Many researchers have advocated a combination of criticism from cultural studies with computational and quantitative methods. Research about entertainment and politics provides opportunities to break the boundary between quantitative and qualitative methods and to supplement critical cultural studies with positivism (Carpini, 2013; Stiernstedt & Jakobsson, 2017). The combination of cultural sociology, cultural studies, and “Big Data” analysis is not a new topic. Bail (2014) proposed to analyze symbolic boundaries and discourse by using the computational method in a large dataset. The quantitative analysis of culture brings humanities and interpretation with scientific tools, such as computational methods, network analysis, and statistical analysis. Researchers need to balance interpretation and scientific measurement, as well as explanation and elements of meanings (Mohr et al., 2019).

In this thesis, we assume that the content on social media, in the form of texts, and reality talent competition programs exhibit neoliberalism in local television markets. We use a quantitative content analysis to identify this assumption without denying the criticism in cultural studies.

Content analysis is a replicable and valid technique for measuring the texts produced by humans through media in a constructive social context. The elaboration of content analysis is epistemological. Krippendorff (2019) clarified six features of texts in content analysis. 1) Texts have no objective or reader-independent quality. 2) The meaning of texts is correlated with the state of their sources. 3) “The meanings invoked by the text cannot be shared” beyond the empirical domain of a study. 4) Meaning and content refer to “something other than the given texts.” 5) “Texts have meanings relative to a particular context, discourses or proposes.” 6) Researchers need to “draw inferences from the body of the texts to their chosen context” (pp. 68-72).

Many researchers have applied content analysis to approach social media content. Some of them focused on social and political issues, while others tried to combine this method with cultural studies (e.g., Chen et al., 2019; Shao & Zhang, 2016; Zhang et al., 2016). Some researchers used Hofstede’s cultural dimensions (Hofstede, 2011) to explain the cultural differences in discussions about reality television on social media (Shao & Zhang, 2016; Zhang et al., 2016). They compared the same format (*The Voice*) in two different countries (China and Germany; China and America). However, in the pilot study of this dissertation, we find that Hofstede’s cultural dimensions hardly fit into the content analysis categories, and these dimensions provide more descriptive analysis than critical analysis. Thus, we conduct an empirical study by interpreting the text to neoliberal values. We will explain the results of this study by referring to Hofstede’s cultural dimensions.

#### 4.3.2 Computational methods as an inter-disciplinary field

Owing to the convergence of computer science, social science, and humanities, many concepts and sub-disciplines have been developed in this inter-disciplinary field, such as digital methods, computational social science, and cultural analytics (Dimaggio, 2015; Rogers, 2013; Salganik, 2019; Wardrip et al., 2018). Rogers

(2019) clarified these concepts by using a matrix of “digitized/natively digital data” and “digitized/natively digital method” (p. 9), which is shown in Table 4. The author defined digital methods as “techniques for the study of societal change and cultural condition with online data” by using “available digital objects,” such as hashtags, likes, shares, and links, to learn how these objects are treated on internet platforms (Rogers, 2019, p. 3). Owing to the tools and training activities launched by the Digital Methods Initiative, this dissertation is inspired by digital methods, but it hardly fits into the definition of digital methods. We will explain the inspiration from digital methods in the data collection section in this chapter. This dissertation is a combination of cultural studies and computational methods. This means that we answer the research questions of television studies and cultural studies by applying advanced tools of machine learning algorithms developed by computer scientists.



		Method	
		Digitized	Natively Digital
Data	Digitized	Culturaomics, Cultural Analytics	
	Natively Digital	Webmetrics, Altmetrics	Digital Methods

Table 4: Inter-disciplines of computational methods in humanities and social science.

Source: (Rogers, 2019, p. 9)

Computer-assisted text analysis was developed in the 1950s. In the early years, computer-assisted content analysis was dictionary-based, where the computer recognized textual material using word packages. In this stage, researchers started to explore semantic or sentiment analysis using the dictionary-based approach (Krippendorff, 2019). Today, considerable data are generated from digital media. This has made “Big Data” analysis popular and enabled computer scientists to develop analytical tools based on artificial intelligence and machine learning (DiMaggio, 2015). With the development of machine learning models, communication researchers have applied this method to analyze large quantities of data (e.g., Guo & Vargo, 2020; Su et al., 2017). Many of these studies focused on social and political issues (e.g., Su et al., 2017; Qin, 2015), while some studies tried to combine computational methods with cultural studies (e.g., Chen et al.,

2019; Shao & Zhang, 2016; Zhang et al., 2016). This can help researchers verify existing theories using a quantitative method (Stiernstedt & Jakobsson, 2017) and develop theories based on the context of digital media.

In the field of machine learning, text analysis is divided into supervised machine learning (SML), a deductive approach, and unsupervised machine learning, which is an inductive approach. Unsupervised machine learning automatically identifies word clusters in a corpus and categorizes them into topics. The number of topics is always indicated by researchers. Social scientists and humanist researchers need to interpret the given topics based on the theoretical background and research questions (Nelson, 2020).

In SML, researchers need to conduct a conventional manual content analysis of part of the entire corpus. The hand-coded text is converted into “vector[s] of quantifiable textual elements,’ which are called ‘features’” (Nelson et al., 2021). Researchers apply a machine learning algorithm that assigns the relationship of numeric feature vectors and hand-coded categories, which trains a model named a “classifier” (Nelson et al., 2021). Usually, the hand-coded set is separated into 70% “training set” and 30% “testing set.” The training set is used to train the model, while the testing set is used to repeat and test the accuracy of the trained model. Once the model is prepared, it is applied to the whole dataset to realize the process of computer-assisted content analysis (Arcila-Calderón et al., 2017).

Accuracy is crucial in SML. Three variables—precision, recall, and F1 score—are often used to evaluate the accuracy of trained models. Compared to dictionary-based automatic analysis, SML achieves high accuracy in identifying implicit expressions in multi-linguistic texts (Arcila-Calderón et al., 2017; Nelson et al., 2021; van Atteveldt et al., 2021; Watanabe, 2021). Meanwhile, manual content analysis is still more accurate than computer-assisted methods (van Atteveldt et al., 2021). Thus, in the current stage, computer-assisted content analysis needs to be understood as an aid to human coders in approaching large datasets, so that humans can focus on the interpretation and conceptualization of materials and numeric results (Krippendorff, 2019).

In this dissertation, we intend to combine the criticism in cultural studies and machine learning text analysis. In the initial step of the analysis, we found that the unsupervised machine learning approach hardly supports critical interpretations. Therefore, we decided to start with conventional deductive content analysis using manual analysis and SML analysis. Then, we conducted inductive text analysis with computational assistance to understand the corpus in detail.

## 4.4 Data collection and limitations

“Big Data” has been a buzzword in recent years. The data collection on social media is limited by the application programming interface (API) of social media platforms and the tools that researchers use. In this research, data from Twitter were captured through Digital Methods Initiative-Twitter Capture and Analysis tool (DMI-TCAT), which can capture a 1% random sample of the Tweets’ population and filter them by specific keywords (Borra & Rieder, 2014). Data from Weibo were captured from Gooseeker, which captures posts with specific hashtags by automatically reading Weibo’s webpages. Thus, the data collected from Weibo are highly visible posts filtered by algorithms on this platform.

During data collection, we focused on the accuracy and neutrality of the dataset (Rogers, 2013). As much as possible data were collected. Accuracy means that the data collected are related to the selected programs and reduce ambiguities. Neutrality means that the hashtags cover the entire program, rather than focusing on a specific topic, cast, or attitude related to the program. Data were captured from the crawlers by querying the official hashtags of these two programs. As argued in Chapter 2, the narrative of reality television programs always creates real-time television rituals on social media. We decided to focus on real-time Tweets and posts about the finale and semi-finale of two competition shows (Table 5).

	Query time	Query Keywords	Collected Posts
OT semifinal	2020/06/03 21:00 GMT- 2020/06/04 00:00 UTC	#OTGALA12	236946
OT finale	2020/06/10 21:00 GMT- 2020/06/11 00:00 UTC	#OTGALAFINAL	265058
YWY semifinal	2020/05/23 20:25 GMT- 2020/05/23 22:19 UTC+8	#青春有你# (#YoungwithYou#)	1259
YWY finale	2020/05/30 21:14 GMT- 2020/05/30 23:22 UTC+8	#青春有你# (#YoungwithYou#)	47626

Table 5: Raw dataset  
Source: self-elaborated

In Gooseeker, posts that contain hashtags can be captured in two ways. First is retrieving posts from the function “keywords search results.” Posts in this function are shown by their timeline. Second is retrieving posts from “Weibo Topic Square.” Posts in this function are shown by their popularity. In the initial step of data collection, we tried the two ways by querying the hashtag #*Young with You*# (#青春有你#). Because Weibo provided the voting function for the competition show, we retrieved repeated posts (78% of the collected data) containing the same voting information from ordinary users through the “keywords search results.” In this case, posts from verified users accounted for 2% of the captured data. By “Weibo Topic Square,” the contents of posts were different, but posts from verified users were approximately 50%. Considering that this research focuses on the discourse about the television program on social media, we decided to collect data using “Weibo Topic Square.” DMI-TCAT retained the emojis of Tweets, but Gooseeker converted some of the emojis to the interrogation mark. Retweets and reposts were excluded from the research.

For data obtained from Twitter, we sorted the posts in Spanish. The whole data set contained only 352 posts from verified users (V). We retained these Tweets and randomly sampled 10,000 posts from unverified users (NV). The raw dataset of Weibo contained many repeated posts, especially in the finale of *YWY*. After removing retweets and duplicated posts, the corpus contained 10304 Tweets for *OT* and 3158 posts for *YWY*. The variables of the data were also distinguished by user status and episodes of each program (Table 6).

	OT		Sum	YWY		Sum
Finale	NV	5548	5777	NV	1473	2023
	V	229		V	550	
Semi-finale	NV	4404	4527	NV	459	1134
	V	123		V	675	
Total			10304			3157

Table 6: Cleaned dataset  
Source: self-elaborated

## 4.5 Defining variables of content analysis

In the first step, 30% of the corpus was randomly sampled for manual content analysis, from which 30% of sub-samples were selected for the pilot study (Table 7). We applied the arguments of Redden (2017) and Couldry (2008), who concluded academic discussions about reality television and neoliberalism and identified how reality television manifests neoliberalism in Anglo-American countries.

Based on the theories and observations in the pilot study, the content analysis comprises two parts: sentiment analysis and semantic categorization. In the sentiment analysis, coders choose one type of sentiment from neutral (NEUT), positive (POS), and negative (NEG). Neutral refers to the ambiguous part between positive and negative sentiments.

In semantic categorization, posts are categorized according to their semantic meanings. Categories 1–5 correspond to neoliberal values that have been identified in previous studies:

**1) Skill and talent (ST):** comments about the artists' performances and capabilities and the contestants' skills and talents.

**2) Behavior, personality, and appearance (BPA):** comments about behaviors and personalities. This category also includes comments about physical and racist appearances and wearing.

**3) Competition and dream-making (CD):** posts about the competition, market, fairness, and voting. It also includes comments related to the pop star dream and its commercial value in the cultural market.



**4) External authority (EA):** comments related to the posts talking about programs, platform sponsors, and judges, which can be considered as external authorities and supports.

**5) Internal support (IS):** comments about teams, friendship, and family.

The hegemony of neoliberalism depends on the promises of individual empowerment and self-activation contra-collectivism (IS). In talent shows, the inequality of human beings constructed by the narrative of success and failures is accepted (CD). Participants are supposed to expose their ordinariness and self-improvement under external surveillance and judgments (BPA). Intense competition (CD), rather than talent or skills (ST), becomes the core of the narrative. Participants ought to positively engage in competition and be evaluated by external authorities (EA) whose validity or rationality can never be questioned (Couldry, 2008; Redden, 2018).

In the pilot study, we found that many posts only expressed emotions that were not related to the program. In these posts, semantic meanings were hardly identified and categorized. Reality television and social media achieved commercial success through the “emotional economy” (Andrejevic, 2011; Couldry & Littler, 2011). Thus, we proposed the semantic category **6) emotional-only (EO)**. Moreover, category **7) not applicable (NA)** was set considering the complex and noisy environment of social media platforms.

Categories 1–5 can co-occur in one post, while categories 6 and 7 are exclusive from other categories. In the coding process, the keywords in each category were indicated to coders to identify sentiment and semantic meanings, which helped maintain reliability. From the sample of manual analysis, 10% sub-samples were randomly selected to verify intercoder reliability (Table 7). Once the manual content analysis was conducted, we applied the SML model to analyze the whole corpus.

	Pilot study 9% (30% * 30%)	Intercoder reliability 3% (30% * 10%)	Manual analysis 30%	Computer-assisted content analysis 100%
OT	900	300	3000 (2900NV+100V)	10304
YWY	284	94	1045 (685NV+360V)	3157

Table 7: Numbers of analyzed Tweets and posts in each step  
Source: self-elaborated

Two additional assistant coders, a master's student and a Ph.D. student in communication, participated in the reliability verification of the Chinese and Spanish corpora, respectively. Thus, the intercoder reliabilities were calculated from the results of two coders, which indicates the agreement between the author and another coder. After training the assistant coders, three coders coded independently. The coders were supposed to select Yes (1) or No (0) for each variable for each unit of analysis (post). Krippendorff's alpha (K) was used to verify intercoder reliability (Krippendorff, 2019). The average intercoder reliability value was approximately 0.5 in the first test. We reconsidered some analytical units, discussed them with assistant coders, asked their consideration about sentiment and semantic meanings, and verified some keywords to identify the categories. An approvable level of reliability was agreed upon in the second test. After reaching intercoder reliability, the categorizations were defined for the following coding and analytics steps.

Once the variables of content analysis were defined, we coded 30% data from both the Chinese and Spanish corpora. Uncertain units were sorted out in this

process. Then, these hand-coded data were used to train the machine learning models.

## 4.6 Supervised machine learning text analysis

We applied the Scikit-learn (SK-learn) package in Python on Jupyter Notebook to realize the SML approach to the whole dataset. SK-learn is an actively developed program for SML analysis (Nelson et al., 2021). In this research, the SML analysis involved the following steps:

- 1) Load hand-coded data
- 2) Clean data
  - 2.1) Word segmentation (Chinese)
- 3) Word vectorization
- 4) Select SML algorithms
- 5) Train the selected algorithm and save the model
- 6) Predict the entire dataset with the trained model
  - 6.1) Load the entire dataset
  - 6.2) Repeat steps 2) and 3) to clean and vectorize words
  - 6.3) Use the saved model to predict the entire dataset
  - 6.4) Output the accuracies of the prediction in each unit
- 7) Output the result

The entire Python coding archives is presented in the Appendix at the end of the thesis.

### 4.6.1 Loading hand-coded data, cleaning data, and word vectorization

After loading the hand-coded data on the Jupyter Notebook, we directly entered the data cleaning step. For the Spanish corpus, we removed noisy symbols, including hashtags, URL links, and individual characters. Some Spanish abbreviations were substituted by entire words, including “q” to “que,” “sr” to “señor,” “x” to “por,” “d” to “de,” and “xq” to “porque.”

For the Chinese dataset, we cleaned hashtags and Chinese symbols that did not affect emotional meanings. In English and Spanish, words are separated by

spaces in a sentence. In Chinese, there is no space between vocabulary or characters in a sentence. For the computer, it is difficult to understand Chinese vocabulary one-by-one in a sentence. Researchers need to apply segmentation to Chinese text analysis. Jieba is the most useful module for segmenting Chinese sentences. We used Jieba to segment Chinese words. In this step, we added the word corpus of YWY to Jieba. The word corpus of YWY was downloaded from the “Cell Corpus (细胞词库)” of Sogou, which contains contestants’ names in the program. Additionally, we manually added some colloquial vocabularies that fans used in this corpus. This increased the accuracy of segmentation.

Emoji characters were removed in neither the Chinese nor the Spanish corpus because they contain emotional meanings. We neither removed stop words nor lemmatized texts in both the Chinese and Spanish datasets because these steps declined the accuracy of SML.

Word vectorization means converting words to numbers that the computer can understand. This is an essential step in text analysis. The “CountVectorizer” function of SK-learn helps researchers in completing this step.

#### 4.6.2 Training SML models and predicting the entire dataset

As mentioned before, researchers always split the hand-coded dataset into a training set (70%) and a testing set (30%) to select SML algorithms. Instead, we applied cross-validation (Figure 8) to select the fittest model for each category. Cross-validation loops training-testing folds by setting the number of K-folds. The accuracy of each loop was given by the function “cross\_val\_score” of SK-learn. Applying the function “np. Average,” we calculated the average accuracy from the loops in each model. In this study, cross-validation has the following advantages: 1) it fits the small sample variables, such as EA and IS, in Figure 10; 2) it uses the entire hand-coded dataset to train and test the selected model to increase accuracy. After deciding on the best model, we trained the model with the entire hand-coded dataset.

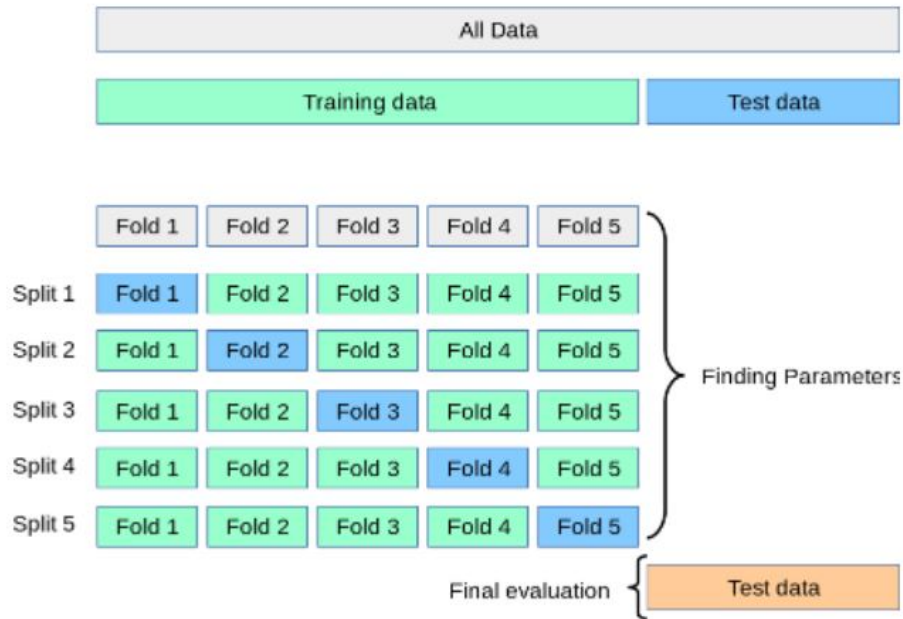


Figure 8: Cross-validation

Source:

[https://scikit-learn.org/stable/modules/cross\\_validation.html#multimetric-cross-validation](https://scikit-learn.org/stable/modules/cross_validation.html#multimetric-cross-validation)

Note: “All Data” means the hand-coded dataset in this thesis.

For the semantic categories, we selected and trained the models one category by another. As with the human coders, the algorithms made a binary choice, 0 (no) or 1 (yes), for each semantic meaning. Once we obtained the predictions of co-occurrent semantic categories 1–5 (ST, BPA, CD, EA, and IS), we sorted the Tweets marked as 0 among the semantic categories. We used this dataset to predict the EO category, which is an exclusive category. After obtaining the prediction of EO, the best Tweets, which were not marked by any of the semantic categories above, were considered as NA (Figure 9).

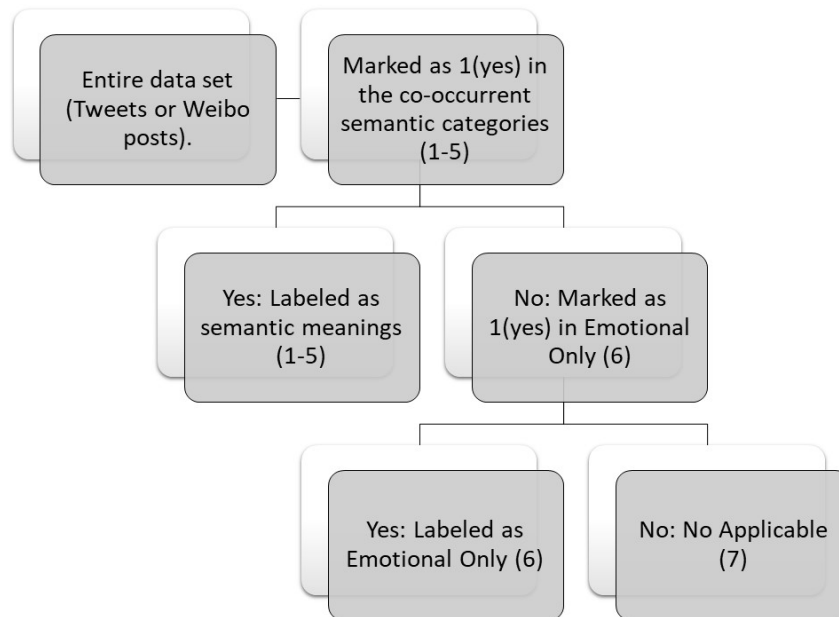


Figure 9: Process of predicting semantic meanings  
Source: Self-elaborated

We applied five algorithms from SK-learn. Table 8 shows that Logistic Regression and Random Forest Classifier performed better than Support Vector Machine, Decision Tree Classifier, and Complement Naïve Bayes. The selected algorithms are marked in bold in Table 8. The accuracy of SML analysis can be guaranteed in the one-by-one selection of algorithms.

Table 8 also compares the accuracies of SML and the inter-coder reliability of human coders, proven by Krippendorffs' alpha. In the Chinese and Spanish categories of IS and EO, SML performed better than human coders. In the Spanish categories of ST and EA as well, SML performed better than the human coders.

The sentiment part is defined as three mutually exclusive categories. Three categories were trained and predicted together using Naïve Bayes algorithms<sup>11</sup>, which fit multicategorical features. The algorithms had to choose one from three variables: positive, negative, and neutral. Because the sentiment part contained three variables, the average accuracies were relatively lower than that of the semantic part (Table 8).

After the SML prediction, we calculated the percentages of each semantic and sentiment categorization and analyzed a cross-tabulation of sentiments in each semantic meaning. The statistical analysis was conducted using Excel and SPSS. The Chi-square homogeneity test was used to compare variables in this descriptive quantitative analysis. After the deductive statistical analysis, we used the inductive approach, including word clouds and qualitative explanation, to understand the results. The word cloud function on Python hardly demonstrates the results. We created word clouds on a website<sup>12</sup> after cleaning the corpus on Python.

---

<sup>11</sup> Naïve Bayes in SK-learn: [https://scikit-learn.org/stable/modules/naive\\_bayes.html#naive-bayes](https://scikit-learn.org/stable/modules/naive_bayes.html#naive-bayes)

<sup>12</sup> Website of word cloud: <https://www.jasondavies.com/wordcloud/>. We also tried latent Dirichlet allocation in this step. We found that the word cloud better explained our data.



	YWY (Chinese)					
<b>Semantic</b>	1, ST(K-fold 50)	2,BPA(K-fold 50)	3,CD(K-fold 50)	4,EA(K-fold 50)	5,IS(K-fold 28)	6,EO(K-fold 58)
Krippendorff's Alpha	0.932	0.869	0.928	0.936	0.74	0.712
Logistic Regression	<b>0.8522</b>	<b>0.8098</b>	0.8064	0.9179	0.9641	<b>0.7601</b>
Support Vector Machine	0.8468	0.7782	0.7995	0.9145	0.9683	0.7428
Decision Tree Classifier	0.8301	0.7705	0.7826	0.8729	0.9640	0.7586
Complement Naïve Bayes	0.7350	0.7150	0.7275	0.7953	0.8335	0.7371
RandomForestClassifier	0.8373	0.7973	<b>0.8176</b>	<b>0.9207</b>	<b>0.9704</b>	0.7428
			RFC(n_estimators=45)	RFC(n_estimators=35)	RFC(n_estimators=35)	
	OT (Spanish)					
<b>Semantic</b>	1, ST(K-fold 50)	2,BPA(K-fold 50)	3,CD(K-fold 50)	4,EA(K-fold 50)	5,IS(K-fold 50)	6,EO(K-fold 50)
Krippendorff's Alpha	0.804	0.855	0.933	0.832	0.886	0.850
Logistic Regression	0.8997	0.8033	<b>0.8563</b>	0.8727	0.9550	0.8617
Support Vector Machine	0.9100	0.8097	0.8493	0.8723	0.9590	0.8870
Decision Tree Classifier	0.9130	0.8103	0.8357	0.8737	0.9643	0.8855
Complement Naïve Bayes	0.7770	0.7470	0.7683	0.7827	0.8887	0.7616
Random Forest Classifier	<b>0.9147</b>	<b>0.8427</b>	0.8443	<b>0.8827</b>	<b>0.9760</b>	<b>0.9053</b>
	n_estimators=45	n_estimators=60		n_estimators=45	n_estimators=40	n_estimators=40
<b>Sentiment (K-fold=100)</b>	YWY	OT		Krippendorff's Alpha		
Support Vector Machine	0.6207	0.5687		YWY	0.884	
Complement Naïve Bayes	0.6293	<b>0.5923</b>		OT	0.683	
Multinomial Naïve Bayes	<b>0.6446</b>	0.5873				
Random Forest Classifier	0.6370	0.5643				

Table 8: Inter-coder reliability, SML accuracies, and selected models  
Source: self-elaborated

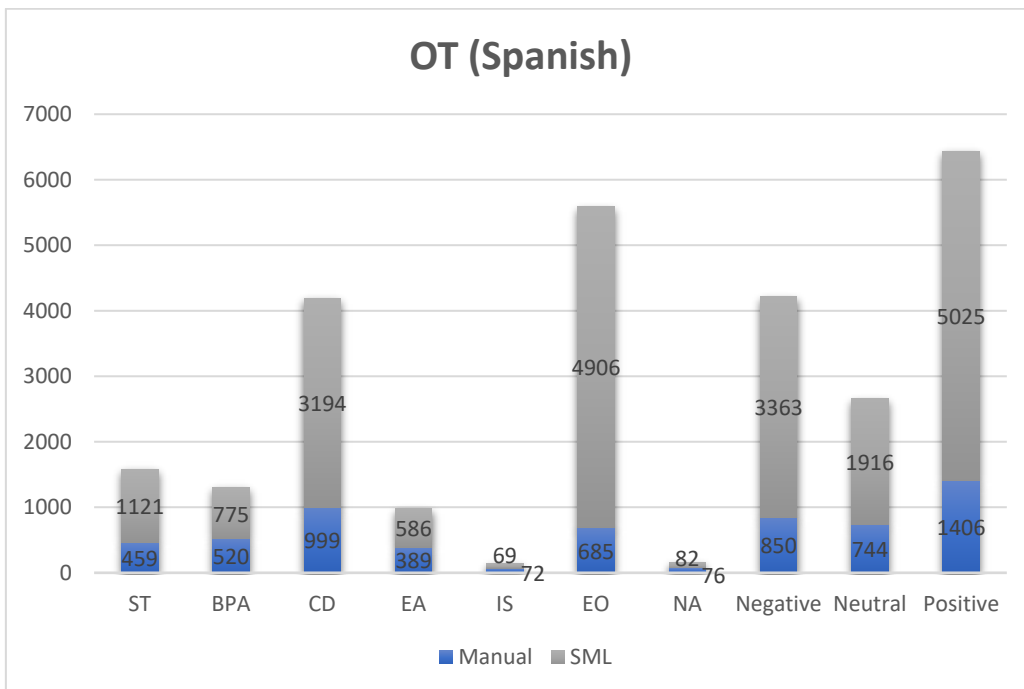
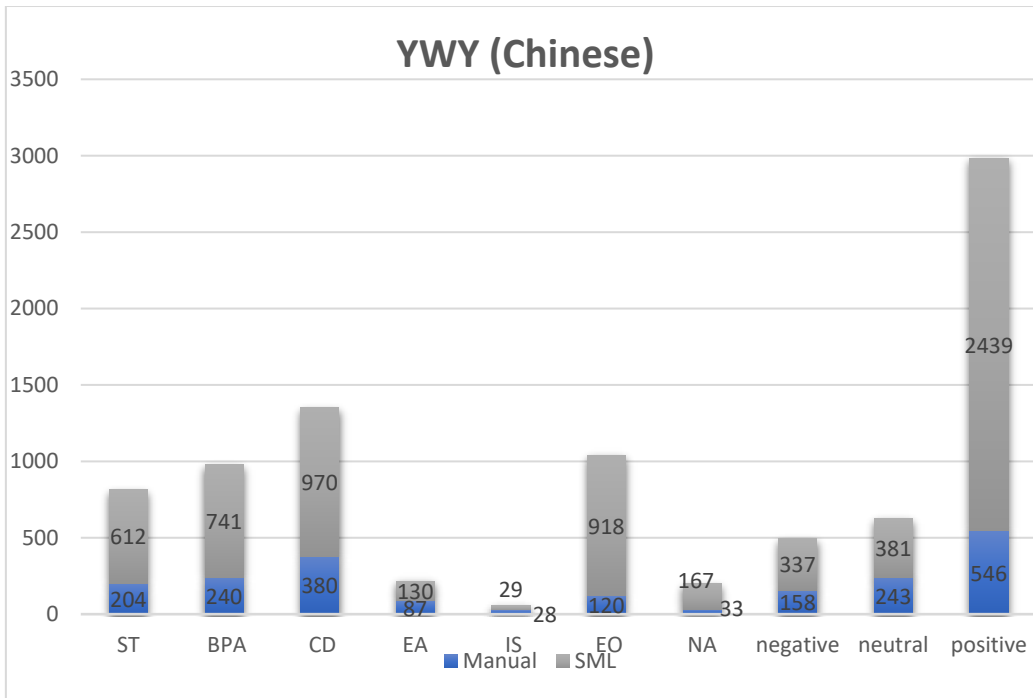


Figure 10: Proportions of hand-coded results and SML results  
 Source: self-elaborated



# Chapter 5 Results

## 5.1 Comparing semantic meanings

Table 9 shows the distribution of semantic categories in the entire dataset. Competition and dream-making (CD), behavior, personality, and appearance (BPA), as well as skill and talent (ST), are the most mentioned terms in both cases. The term skill and talent (ST), which refers to the artists' capabilities and the contestants' performance, occupies 10.88% in *OT* and 19.39% in *YWY*. The term BPA occupies 7.52% in *OT* and 23.47% in *YWY*. The percentages of both ST and BPA in *YWY* are significantly higher than those in *OT* ( $p < 0.001$ ). Among these patterns, CD is the most mentioned topic. The percentages are similar in both cases, occupying approximately 31% ( $\chi^2 = 0.08$ ,  $p \geq 0.05$ ).

The distribution of these three terms in the dataset corresponds to the global narrative format of reality talent competition programs in which the neoliberal value of market competition (CD) is embedded into the judgment of contestants' skill and talent (ST) as well as their ordinariness and presentations as human beings, including their behavior, personality and appearance (BPA). The neoliberal value of competition, dream-making, and self-realization is still the core value that engages discussions on social media.

The percentage of emotional-only (EO) posts in *OT* (47.61%) is significantly higher than that in *YWY* (29.8%,  $\chi^2 = 338.2$ ,  $p < 0.001$ ). The term emotional-only (EO) also occupies a considerable proportion of the *OT* dataset. Grammar could have impacted this result. In Spanish, people use demonstrative pronouns, such as "la amo" (I love her) and "ha estado fantástico" (he/she has been fantastic), to shorten a phrase. Some of these shortened texts adhere to memes, pictures, and videos, which are not included in this research. Coders cannot identify to whom

and to which term this phrase refers. Such Tweets are coded into the category of emotion-only (EO).

The terms external authorities (EA) and internal support (IS) occupy low percentages in the two datasets. The term IS takes the lowest percentages in the two cases, which show no significant difference ( $\chi^2 = 2.07$ ,  $p \geq 0.05$ ).

In Chapter 3, we found some posts that are not related to the program on the first page of the hashtag on Twitter. However, according to the statistical analysis, posts that are not related to the program are higher in *YWY* (5.29%) on Weibo than in *OT* on Twitter (0.8%). In Chapter 3 we use the hashtag #OT2020 to approach the interface. This hashtag also refers to a political movement in the United States (OT means Our Vote). In the data collection, we use the hashtag of galas #OTGALA12 and #OTGALAFINAL and the query time is delimited in the live broadcasting time of the program. Thus, the dataset includes less noise content. In the case of *YWY*, since the hashtag of this program brings huge traffic to the platform, users also tag *YWY* to attract traffic to their posts that are not related to the program.

	OT	YWY	$\chi^2$	
N	10304	3157		
ST	10.88%	19.39%	155.89	***
BPA	7.52%	23.47%	615.19	***
CD	31.00%	30.73%	0.08	
EA	5.69%	4.12%	11.82	**
IS	0.67%	0.92%	2.07	
EO	47.61%	29.08%	338.20	***
NA	0.80%	5.29%		

\*p < 0.05, \*\*p < 0.01, \*\*\* p < 0.001

df = 1

Table 9: Distributions of semantic categories in the entire dataset

Source: self-elaborated

Table 10 compares verified and non-verified users on the same platform and in the socio-cultural context. In the case of OT, semantic meanings share a similar distribution except for ST ( $\chi^2 = 30.5$ ,  $p < 0.001$ ) and EO ( $\chi^2 = 17.57$ ,  $p < 0.001$ ). The semantic distributions in the case of YWY are significantly different between verified and unverified users, except for IS ( $\chi^2 = 0.01$ ,  $p \geq 0.05$ ). In the case of YWY, compared to unverified users, verified users mention more topics about ST ( $\chi^2 = 209.13$ ,  $p < 0.001$ ) and BPA ( $\chi^2 = 332.10$ ,  $p < 0.001$ ), while unverified users talk more about CD ( $\chi^2 = 111.5$ ,  $p < 0.001$ ) and publish more posts about EO ( $\chi^2 = 161.9$ ,  $p < 0.001$ ). On Weibo, verified users use specific communicative strategies and avoid topic competition.

Table 11 shows the values of the Chi-square comparing semantic distributions of the same user verification status on different platforms. The table needs to be read together with Table 10. The communicative strategies of verified users show significant differences in four principal topics: ST ( $\chi^2 = 19.85$ ,  $p < 0.001$ ), BPA ( $\chi^2 = 136.93$ ,  $p < 0.001$ ), CD ( $\chi^2 = 29.01$ ,  $p < 0.001$ ), and EA ( $\chi^2 = 7.32$ ,  $p < 0.01$ ). Verified users talk more about CD and EA in the case of OT (CD, 33.52%; EA, 5.40%) than YWY (CD, 19.84%; EA, 2.53%). Verified users talk less about ST and BPA in the case of OT (ST, 19.89%; BPA, 7.39%) than in the case of YWY (ST, 32.16%; BPA, 40.73%). This means that the verified users on Twitter, compared to those on Weibo, do not avoid the topic of competition. This result also supports the argument that Weibo is an advertising campaign in which verified users promote the products of content and those of sponsors and unverified users are engaged. Meanwhile, verified and unverified users are relatively equally engaged in the forum provided by Twitter.

The distributions of unverified users in BPA ( $\chi^2 = 52.91$ ,  $p < 0.001$ ) and CD ( $\chi^2 = 33.59$ ,  $p < 0.001$ ) show significant differences. The percentages of BPA (12.53%) and CD (37.63%) in YWY are higher than those in OT (BPA, 7.53% and CD, 30.91%). The distributions in unverified users show no significant difference ( $p \geq 0.05$ ) in ST, EA, and IS.

In both cases, IS, which refers to personal relationships, is rarely mentioned in the dataset, even though these two programs consider family relationships and friendships as a part of the storytelling on the television screen. In case of OT, the EO category occupies considerable percentage.



	OT			YWY		
	NV	V	$\chi^2$	NV	V	$\chi^2$
N	9952	352		1932	1225	
ST	10.56%	19.89%	30.50 ***	11.28%	32.16%	209.13 ***
BPA	7.53%	7.39%	0.01	12.53%	40.73%	332.10 ***
CD	30.91%	33.52%	1.09	37.63%	19.84%	111.50 ***
EA	5.70%	5.40%	0.06	5.12%	2.53%	12.77 ***
IS	0.69%	0.00%	2.46 !	0.93%	0.90%	0.01
EO	48.00%	36.65%	17.57 ***	37.27%	16.16%	161.90 ***
NA	0.76%	1.70%		4.19%	7.02%	

! Fisher's exact test: 0.17653

\*p < 0.05, \*\*p < 0.01, \*\*\* p < 0.001

df=1

Table 10: Distributions of semantic categories and comparison between verified and unverified users within the same platform

Source: self-elaborated

	Comparison	N	$\chi^2$	
ST	OT-V and YWY-V	1577	19.85	***
	OT-NV and YWY-NV	11884	0.89	
BPA	OT-V and YWY-V	1577	136.93	***
	OT-NV and YWY-NV	11884	52.91	***
CD	OT-V and YWY-V	1577	29.01	***
	OT-NV and YWY-NV	11884	33.59	***
EA	OT-V and YWY-V	1577	7.32	**
	OT-NV and YWY-NV	11884	1.00	
IS	OT-V and YWY-V	1577	3.18	!
	OT-NV and YWY-NV	11884	1.26	
EO	OT-V and YWY-V	1577	69.81	***
	OT-NV and YWY-NV	11884	74.98	***

df = 1, \*<0.05, \*\*<0.01, \*\*\*< 0.001

! Fisher's exact test: 0.137044

Table 11 : Comparison of semantic categories between the same user verification status in two different platforms

Source: self-elaborated

## 5.2 Comparing sentiment meanings

Table 12 shows the distribution of sentiments. Table 13 provides the results of the Chi-square test between the same user status of two platforms, which shows that the sentiment distributions significantly differ between verified users on Twitter and those on Weibo, as well as between unverified users on Twitter and those on Weibo. Here, we highlight significant points of the results obtained for the two cases.

The two cases have the following similarities:

- 1) Positive sentiment occupies considerable percentages in both *OT* (48.77%) and *YWY* (77.26%).
- 2) Unverified users express more negative sentiments than verified users.
- 3) Unverified users express more negative sentiments than neutral sentiments.
- 4) Verified users express the least negative sentiments.

The two cases have the following differences:

- 1) The proportion of negative sentiments in *OT* (32.64%) is significantly higher than that in *YWY* (10.67%) ( $\chi^2 = 584.86$ ,  $p < 0.001$ ).
- 2) The proportion of positive sentiments in *YWY* (77.26%) is significantly higher than that in *OT* (48.77%) ( $\chi^2 = 794$ ,  $p < 0.001$ ).
- 3) The neutral sentiments of *OT* (18.59%) are significantly higher than those of *YWY* (12.07%) ( $\chi^2 = 72.73$ ,  $p < 0.001$ ).

In the comparison between verified users and unverified users, we identify that the verified users in *OT* express the most neutral sentiments (44.6%), while those in *YWY* express the most positive sentiments (83.35%). In the case of *OT*, verified users often use interrogative sentences that ask questions to engage audiences. In the case of *YWY*, verified users often use a positive tone to describe the programs and contestants, while unverified users often use interrogative sentences to express irony and negative sentiments.

	N	<i>Negative</i>	$\chi^2$	<i>Neutral</i>	$\chi^2$	<i>Positive</i>	$\chi^2$
OT-NV	9952	33.32%	61.65	17.67%	162.85	49.01%	6.59
OT-V	352	13.35%	***	44.60%	***	42.05%	*
YWY-NV	1932	14.96%	95.83	11.65%	0.84	73.40%	42.25
YWY-V	1225	3.92%	***	12.73%		83.35%	***
OT	10304	32.64%	584.86	18.59%	72.73	48.77%	794.00
YWY	3157	10.67%	***	12.07%	***	77.26%	***
df = 1, *p < 0.05, **p < 0.01, *** p < 0.001							

Table 12: Distribution of sentimental categories and comparison between verified and unverified users within the same platform  
Source: self-elaborated

	N	$\chi^2$	df	p
OT-V and YWY-V	1577	243.22	2	p < .001
OT-NV and YWY-NV	11884	396.74	2	p < .001

Table 13: Comparison of sentimental categories between the same user verification status in two different platforms  
Source: self-elaborated

Figures 11 and 12 show the cross-table analysis of sentimental categories and semantic categories. As we define the neutral sentiments as the ambiguous part between the negative and positive sentiments, Figures 11 and 12 also show the polarization of sentiments in the two cases. The sentiment is more polarized in the case of *YWY* (Figure 12) than in *OT* (Figure 11). In the dataset of *YWY* (Figure 12), positive sentiments occupy a dominant proportion in the dataset. In the case of *YWY*, verified users (Figure 12, *YWY-V*) tend to use positive sentiments in *ST* (356) and *BPA* (453), which occupy over 90% of the dataset. The *OT* dataset (Figure 11) is relatively neutral, while the sentiment of unverified users (*OT-NV*) is more polarized than that of verified users (*OT-NV*).

Negative sentiments occupy considerable proportions in terms *EA* and *CD* in the datasets of unverified users in both cases. In the case of *OT* unverified users (Figure 11, *OT-NV*), negative sentiments occupy over 50% in the term *EA* and over 30% in the term *CD*. In *CD*, the number of posts of negative sentiment is 1060, which is the highest number among negative sentiments in each semantic term. In the case of *YWY* unverified users (Figure 12, *YWY-NV*), negative sentiments occupy over 50% in the term of *EA*. Meanwhile, in the term of *CD*, the number of posts of negative sentiments is 121, which is also the highest among negative sentiments in each semantic term. Negative sentiments also occupy the highest percentage in the term of *EA*, which includes the program, platform, judges, and sponsors, in the dataset of verified users (Figures 11 and 12, *OT-V*, *YWY-V*). This also implies that, on Weibo and Twitter, some verified users do not endorse the programs.

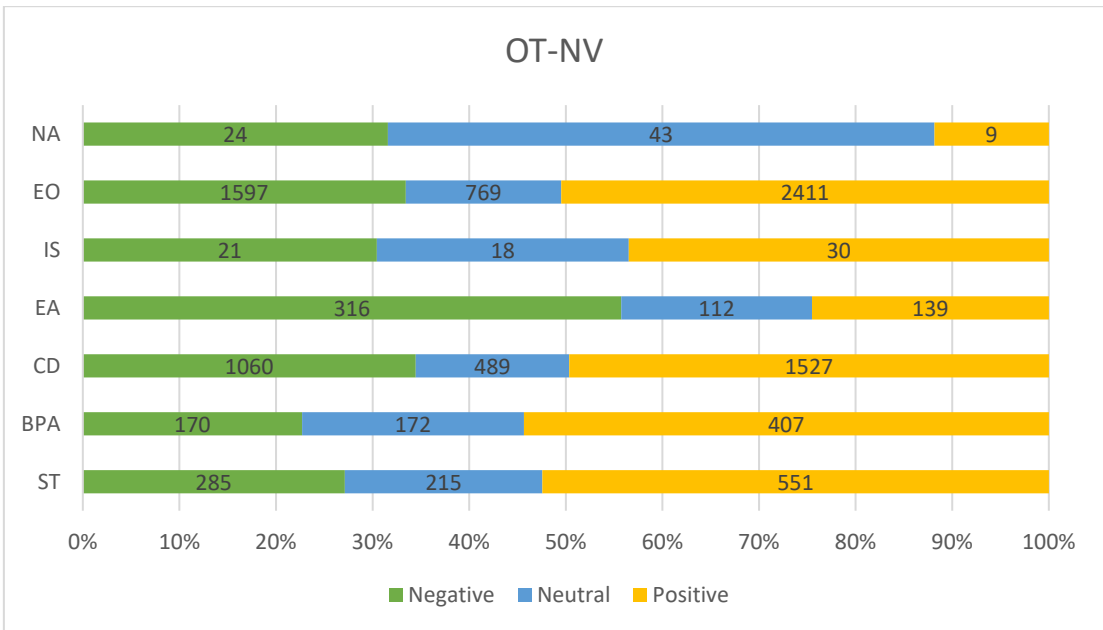
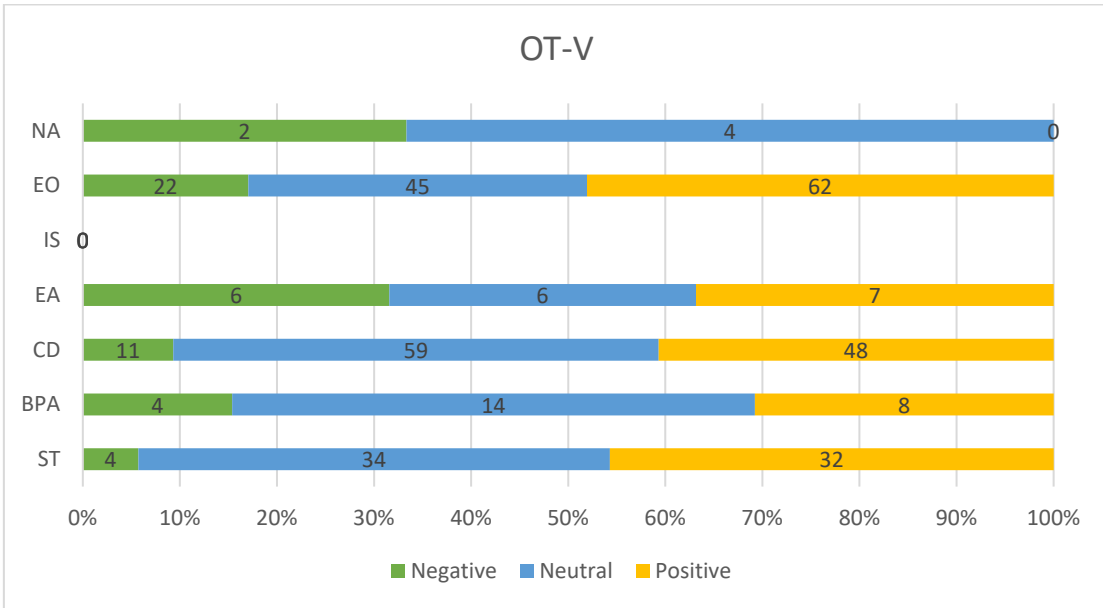


Figure 11: Sentiment distribution of *OT* in each semantic category  
 Source: self-elaborated

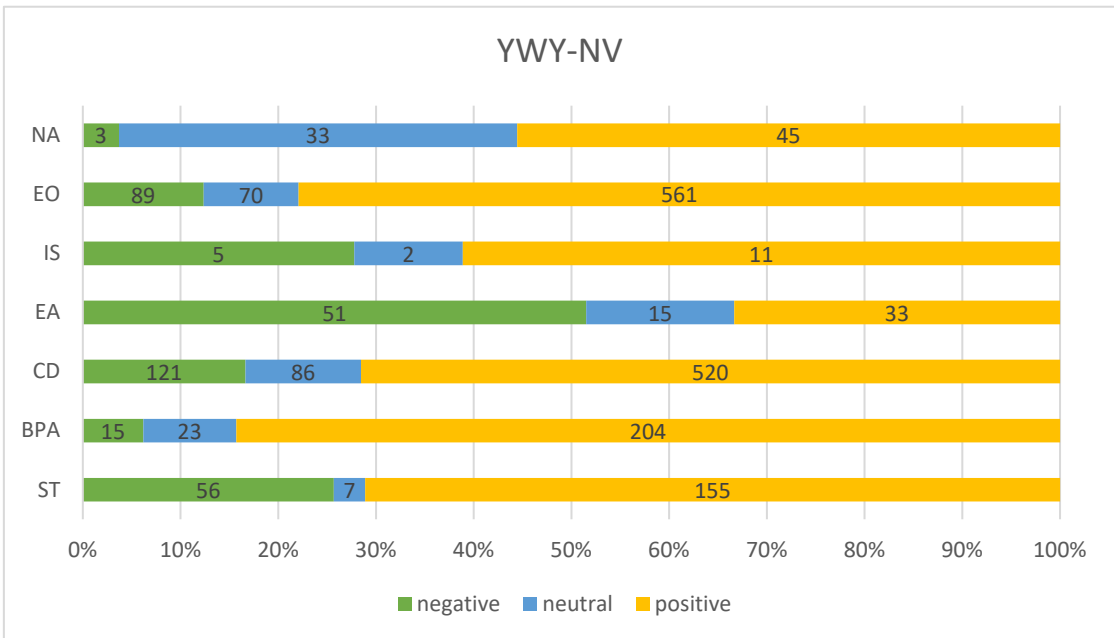
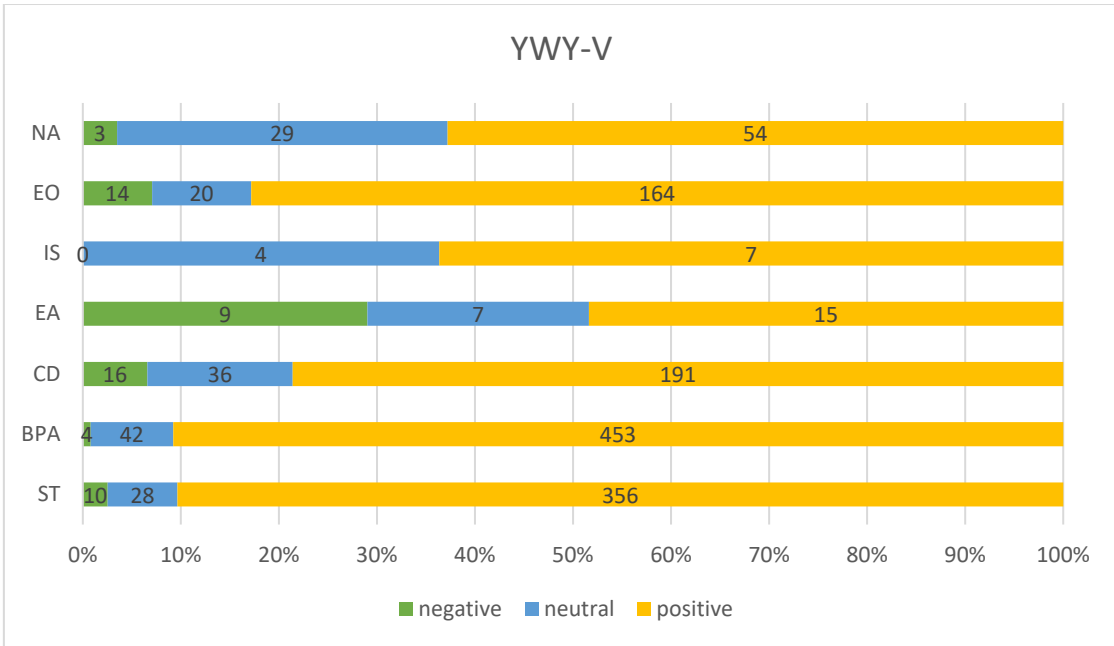


Figure 12: Sentiment distribution of YWY in each semantic category  
 Source: self-elaborated

Users expressed negative sentiments toward external authorities, including programs, platforms, judges, and sponsors, and competition when they felt the competition results were unfair. Figure 13 shows two word clouds of negative posts in the semantic categories of CD and EA.

Since YWY is a commercially driven program<sup>13</sup>, Chinese users also believed that the competition results were controlled by the sponsor (DOVE, 多芬). In the Spanish context, users directly complained about the unfairness (in Spanish, “injusto” and “injusticia”). They believed that the results were rigged by authorities (“内定”, “秘密” in Chinese and “tongo” in Spanish). They also talked about whether the participants “deserve” (“merecer” in Spanish) their places in the ranking. Without lemmatization in the Spanish corpus, the text mining results show more semantic meanings. Users’ distrust is also observed in the subjunctive, which means “should deserve” and “should be” (“merecería” and “debería,” respectively, in the Spanish word cloud). Chinese users judged the competition results according to participants’ strength (实力) and complained about the quality of the programs. Chinese users used “modified sounds” (修音) and the metaphor of “traffic accident” (车祸) to complain about the quality of singing performances. In Spanish, users directly complained that the program was boring (aburrido).

---

<sup>13</sup> OT is a program on Spanish national public television channel, on which commercial advertisements are not allowed.





## 5.3 Comparing two episodes of the same program

Tables 14 and 15 compare the distributions of sentiment and semantic categories between two episodes in each program. In both *OT* and *YWY*, the percentages of EO are significantly higher in the finale than in the semi-finale, which means that the finale of the competition storytelling model stimulated more emotional expression.

Semantic meanings in discussions on social media vary with the content in each episode on the television screen. Tables 14 and 15 show significant differences between the finale and semi-finale in the three principal topics: ST, BPA, and CD ( $p < 0.001$ ). The EA category shows no significant differences in both cases. In the case of *YWY*, the term IS shows no significant differences. In the case of *OT*, the percentage of the term of IS is slightly higher in the semi-finale than in the finale ( $p < 0.05$ ). This means that the narration on the television screen hardly affects users' attention on the EA and IS topics.

In the case of *OT* (Table 14), the category CD occupies a higher percentage in the semi-finale (38.24%) than in the finale (25.32%). The game result is controversial in the semi-finale of *OT*; thus, the social media discussion focuses on the topic of competition. In *YWY* (Table 15), the distribution among ST, BPA, and CD shows a significant difference. In the semi-finale, discussions on social media focus on ST (33.86%) and BPA (42.59%). In the finale of *YWY*, the category of CD occupies a considerable percentage (41.72%) because the discussion focuses on the competition ranking when the game becomes rival and the ranking is controversial.

The controversial ranking of the talent competition games on the television screen also affects the sentiment distribution on social media. In *OT* (Table 14), the negative sentiments are significantly higher in the semi-finale (39.72%) than in the finale (27.09%) ( $\chi^2 = 184.07$ ,  $p < 0.001$ ), because the ranking is controversial

in the semi-finale. In *YWY*, the negative sentiments are significantly higher in the finale (14.8%) than in the semi-finale (3.26%) ( $\chi^2 = 101.96$ ,  $p < 0.001$ ), because the ranking is controversial in the finale.

	<u>Finale</u>	<u>Semi-finale</u>	$\chi^2$	
Total	5777	4527		
ST	12.17%	9.23%	22.56	***
BPA	8.85%	5.83%	33.14	***
CD	25.32%	38.24%	198	***
EA	5.37%	6.10%	2.5	
IS	0.45%	0.95%	9.53	*
EO	50.53%	43.89%	44.81	***
NA	0.76%	0.84%		
Negative	27.09%	39.72%	184.07	***
Neutral	20.60%	16.04%	34.89	***
Positive	52.31%	44.25%	66.08	***

df = 1, \*<0.05, \*\*<0.01, \*\*\*< 0.001

Table 14: Comparison between the episodes of OT  
Source: self-elaborated

	<u>Finale</u>	<u>Semi-finale</u>	$\chi^2$	
Total	2023	1134		
ST	11.27%	33.86%	237.33	***
BPA	12.75%	42.59%	360.20	***
CD	41.72%	11.11%	319.86	***
EA	4.79%	2.91%	6.54	
IS	0.99%	0.79%	0.30	
EO	33.91%	20.46%	63.76	***
NA	4.55%	6.61%		
negative	14.8%	3.26%	101.96	***
neutral	12.7%	10.93%	2.14	
positive	72.5%	85.80%	73.55	***

df = 1, \*<0.05, \*\*<0.01, \*\*\*< 0.001

Table 15: Comparison between the episodes of YWY  
Source: self-elaborated

## 5.4 Discussion: responding to research questions

*RQ1: How is the prevalence of neoliberalism in discussions about these two reality talent competition programs on social media?*

The theory and definition of neoliberalism have been ambitious in academic discussions. In chapters 4 and 5, we considered neoliberalism as an ideology in reality television. We used the arguments of Redden (2018) and Couldry (2008). The hegemony of neoliberalism depends on the promises of individual empowerment and self-activation contra collectivism (IS). In talent shows, the inequality of human beings constructed by the narrative of success and failures is accepted (CD). Participants are supposed to expose their ordinariness and self-improvement under external surveillance and judgments (BPA). Intense competition (CD), rather than talent or skills (ST), becomes the core of the narrative. Participants ought to positively engage in competition and be evaluated by external authorities (EA) whose validity or rationality can never be questioned.

The term competition and dream-making (CD) is the core value in discussion on social media in China and Spain (Table 9). The results of the content analysis show that the principal narrative on social media includes the judgments about skill and talent (ST), behavior, personality and appearance (BPA) as well as competition and dream-making (CD). Among these three categories in the quantitative analysis, competition and dream-making (CD) is the most mentioned term. This proves that intense competition is the core of the narrative in the two television programs in China and Spain. The value of market competition has been enhanced in the discussion about reality television programs on social media through the media rituals created by television organizations. Meanwhile, the terms external authorities (EA) and internal support (IS) are marginalized in the discussions on social media about these reality talent competition programs.

*RQ2: What are the similarities and differences in the prevalence of neoliberalism between the two cases of China and Spain on two social media platforms Twitter and Weibo?*

**The first similarity** is that the competition and dream-making (CD) and the term internal support (IS) do not show significant differences between China and Spain, according to the quantitative results. The semantic term CD is the most talked term, while IS is the least talked term. This result can be argued with Hofstede's dimensions of national culture.

The narrative of talent competition boosts the value of individualism and weakens collectivism in online discussions about the two television programs. According to Hofstede's dimensions of national culture (Figure 14), the indices of individualism are relatively lower in China and Spain than in Anglo-American countries. Chinese and Spanish societies are more collectivist than Anglo-American societies. Both *OT* and *YWY* invite contestants' family members to participate in the programs. Friendship and romantic relationships are also mentioned in social media discussions. However, the term internal support (IS) still occupies a low percentage in both China and Spain. *YWY* is an East-Asian format originally from South Korea and Japan. It runs competitions in girls' groups, where the contestants must compete and perform as a group in each episode. Users on Weibo often talk about girls' friendships and teams. We did not find verified users who published negative comments related to this topic on Weibo. In their comments, personal relationships support the contestants in the moralities of self-cultivation, which legitimizes the success of an individual, while the family's social capital and social class are ignored: "her family has been rigorous for her (...) she is such a virtuous and hardworking girl."

In the dataset, verified users on Twitter do not cover the topic of IS (Table 10). *OT* runs contests by individuals among both female and male contestants. Both heterosexual and homosexual romantic gossips and friendships are talked about by unverified users on Twitter. However, the semantic term of IS occupies a low percentage in both cases. This confirms the theory that individualism is highly

promoted in reality talent competitions. In addition, collectivist interpersonal ties are underestimated in free-market competitions. In this study, the individualist value from Anglo-American countries is widely localized and accepted in both China and Spain.

**The second similarity** is that Spanish and Chinese social media users show similar distrust toward competition and authorities from both quantitative and qualitative approaches. The literature has found different attitudes about the fairness of competition when comparing China with other Western countries (the United States and Germany) (Shao & Zhang, 2016; Zhang et al., 2016). According to Hofstede's dimensions of national culture (Figure 14), the dimension of "power distance" is defined as "the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally" (Hofstede, 2011, p. 9). This index is higher in China (80) and Spain (57) than in Anglo-American countries (Figure 14). The localization of neoliberal market competition hybridizes with the local traditions of China and Spain, the non-Anglo-American countries. People assume that the power of authorities is determined by market competition, which leads to unfair results. China's "power distance" index is higher than Spain's. In both cases, users also believe that the contestants' talents form an important factor in the competition game, and users assume that external authorities can impact the competition result. Social media provide a space for unverified users to challenge external authorities. Such a challenge is expressed in similar linguistic terms in two different languages. The neoliberal value of fair competition is modified in this context.

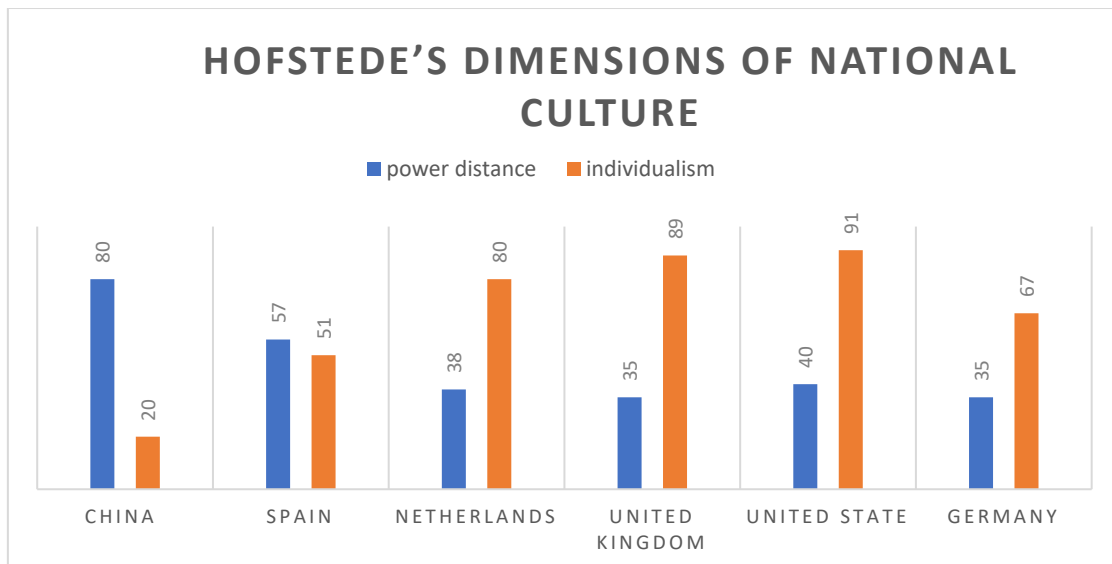


Figure 14: Hofstede's dimensions of national culture: power distance and individualism.

Source: <https://www.hofstede-insights.com/product/compare-countries/>

Note: We select Anglo-American countries that are active in the global trade of reality television formats.

**The differences focus on two points. First,** the percentages in the topics of skill and talent (ST) and behavior, personality and appearance (BPA) are significantly higher in China than in Spain. Meanwhile, the percentage of emotion-only (EO) is significantly higher in Spain than in China (Table 9). In the dataset, posts from Weibo are longer and express more semantic meanings than those from Twitter. As mentioned before, Spanish users often use demonstrative pronouns to shorten phrases such as “la amo” (I love her) and “ha estado fantástico” (he/she has been fantastic). Some of these shortened texts adhere to memes, pictures, and videos. Some phrases might refer to talent or appearance, but this cannot be identified by the coders. Such Tweets are coded into the category of EO. We argue that the linguistic cultures on social media in China and Spain are different.

**Second,** the percentage of positive sentiments is significantly higher in the case of YWY than in OT (Table 9). In the case of OT, to interact with audiences, verified users often use interrogative sentences in a neutral tone to ask questions. In the



case of YWY, they often use positive sentiments to describe the programs and contestants. Apart from the linguistic factor, the crawler captures the data from Weibo by reading the webpages of “Weibo Topic Square,” because of which our data have already been filtered by the visibility defined by the algorithms on Weibo. The crawler for Twitter randomly collects data; the visibility of each post on the platform does not affect our dataset. Moreover, “harmony” and “positive energy” are traditional values recognized and promoted by political power, which affect the commercial strategies of commercial platforms in China (X. Chen et al., 2021; Zhang, 2018). In this study, positive sentiments occupy a considerable percentage of the dataset of China. This might be because the algorithms of Weibo increase the visibility of positive content on this social media platform, in the social context that “positive energy” is promoted as the mainstream value. Moreover, as a traditional value in China, “harmony” is embedded into marketing strategies for both commercial platforms and verified users on social media platforms.

*RQ3: How do verified and unverified users on Twitter and Weibo engage in the discussion on the reality television program in each case?*

In this research, user verification is an important variable in quantitative analysis. On Weibo (Table 10), verified and non-verified users show a significant difference in the distribution of semantic topics. Verified users focus on the topics of skill and talent (ST), behavior, personality and appearance (BPA) and they avoid the topics of competition and dream-making (CD) and external authorities (EA). In the sentiment analysis (Table 12), the percentage of negative sentiments is significantly lower in verified users than in unverified users, while the percentage of positive sentiments is significantly higher. The neutral sentiment shows no significant difference. The statistical distribution shows the marketing strategies of the reality television program YWY on Weibo. Verified users tend to avoid controversial topics about viral competition or judgment to authorities, including platforms, sponsors, and programs. Rather, they focus on positive descriptions of the talents, personalities, and appearances of contestants. Unverified users

judge more on competition, voting, and ranking in the show and complain about external authorities.

Meanwhile, the semantic distribution in the case of OT shows fewer differences (Table 10). Only the semantic terms skill and talent (ST) and the term of emotional only (EO) show significant differences between verified and non-verified users. Similar to the case of YWY, in the case of OT as well, verified users show more interest in the topic of ST, while unverified users show more interest in the topic of EO. In the case of OT, verified users do not avoid the topic of competition and dream-making (CD), while their sentiments are relatively neutral and positive (Table 12). Moreover, in both cases, not all verified users endorse programs on social media. Figures 11 and 12 also show that verified users express negative sentiments to challenge authorities and the competitions.

This finding responds to the argument in Chapter 3. On Twitter, the hashtag afforded the function of a forum in which audiences, official accounts of the program, and accounts that were not related to the program can participate relatively equally. The commercial strategies of Twitter do not rely heavily on the television industry in Spain. In the case of OT, the semantic terms used by verified users are similar to those used by unverified users. On Weibo, the hashtag afforded the function of an advertising campaign for the sponsor and the program in which ordinary users and audiences were engaged. The significant differences between verified and unverified users in the case of YWY demonstrate that Weibo is a commercial platform that actively converges with China's television industry. In this context, the communication strategies adopted by verified users to promote this television program are different from those adopted by unverified users.

*RQ4: How do discussions on social media vary according to the content of each episode on the television screen in each case?*

This research shows that semantic meanings and sentiments change according to the narrative in each episode on the television screen (Tables 14 and 15). In

*OT* and *YWY*, when the ranking of the talent competition show is controversial in an episode, it provokes discussion about CD on social media and negative sentiments, which challenge the fairness of the competition. In contrast, when the ranking of the talent competition is not controversial, users on social media pay more attention to skill and talent (ST) as well as behavior, personality and appearance (BPA). The television content do not affect the discussions about external authorities (EA) and internal support (IS). The finales of two programs stimulated users toward express emotion (EO).

The responses of RQ1 and RQ4 also confirm the argument made in Chapter 2: when we conceptualize reality television as media rituals, social media can be a ritual space in which ritual actions related to media take place and the symbolic power of media institutions is condensed. Users' attention is caught by the multi-media matrix constructed by television and social media. Users' discussions are closely related to the content on the television screen. Discussions related to the program on social media also frame and highlight the values of neoliberalism that form a part of the narrative of reality talent competition programs in China (*YWY*) and in Spain (*OT*). The symbolic power of television, social media, and the form of reality television is condensed through second-screen viewing practices.

# Chapter 6 Conclusion

This thesis is a comparative study of neoliberalism, reality television, and social media in China and Spain. This thesis has the following objectives: 1) to identify the features of glocalization of reality television formats under the economic order of neoliberalism in China and Spain; 2) to identify the roles of Weibo and Twitter as the second screen of reality television programs in Chinese and Spanish markets; and 3) to identify the presence of the features of neoliberal ideology in discussions about the genre of reality talent competition programs on social media in China and Spain.

How can we conduct comparative research about the phenomenon of reality television and the usage of social media as the second screen of reality television in China and Spain, which are two countries of different socio-cultural backgrounds? In this research, we deliberate the comparability and fundamental similarities under the surface of different objects to be compared (H. Zhao & Liu, 2020).

In the theoretical framework (Chapter 2), we review theories about cultural globalization and the tradition of television studies from the perspective of cultural studies. In this paradigm, we focus on discussions about neoliberalism in reality television. Scholars have discussed that neoliberalism is the dominant ideology in reality television, while this ideology can be unequally embedded into this form of television in the different national markets. In Chapter 3, we review the localization of neoliberalism as a political-economic order in China and Spain since the end of the 1970s. Spain applied the model of embedded neoliberalism through the process of normalization and integration into the European Union. The economic crisis forced the Spanish bipartisan government to reduce the role of state welfare, which generated social inequality and provoked anti-hegemonic socio-cultural movements. China applied neoliberal economic ideas under the governance of the Communist Party. Economic reforms implemented after the

1970s have challenged the communist and collectivist production model. Entrepreneurship and tech-optimism have been extremely emphasized through top-down initiatives in recent years. However, the localization of neoliberalism did not transform the country into a laissez-faire state.

Reality television emerged around the 1990s, and the global formats of reality games became popular in the 2000s in both markets. Although reality television and formats are a global television phenomenon, few formats are culturally and commercially compatible in the television industries of China and Spain. Formats that focus on private relationships received less consensus in these two television markets. *Big Brother* and *Survivors* have been successful for decades in Spain but have failed in China. In terms of the narrative of private life in reality television, Korean formats, such as *Dad, Where Are We Going?* (parents-children), and *We Got Divorced* (divorced couples), are successful in China. Compared to *Big Brother* and *Survivor*, these formats alleviate interpersonal scheming and conflicts but enhance harmony in intimate relationships. However, one sub-genre is culturally and commercially compatible in both China and Spain—the talent competition shows, which involve the core neoliberal value of improving one's skills and talents in popular culture to win a competition.

The reason for this is attributed to neoliberalism *per se*. Neoliberalism is an idea that supports international free trade; welfare guarantees or government intervention are modified depending on political power in different countries. The personal and private space is less impacted by the global flow of neoliberalism compared to the market and public space. Intimate relationships and private life evolve into more local cultures. Reality formats that contain more stories about private life—such as *Big Brother*, *Dad*, and *Where Are We Going?*—are less culturally compatible between the Western and Eastern worlds. Formats focusing on (market) competition and self-improvement of talent and skills based on globally compatible popular culture, such as *Master Singer*, *Pop Idol*, and *OT*, are more culturally compatible across the Western and Eastern worlds.

As a political–economic project, neoliberalism was localized in China and Spain during the same period at the end of the 1970s; as a form of television content, reality television became popular in China and Spain in the 2000s with the global flow of reality television formats. This is not a historical coincidence between China and Spain. Rather, it forms a part of the globalization process and the integration of both countries into the global political and economic order, along with the localization of neoliberalism as a cultural hegemony in the non-Anglo-American countries.

Globalization is also related to the iteration of media technologies and business, although global interconnectivity is limited by political power and competition among commercial companies. China and Spain are located in different internet ecosystems—the Chinese ecosystem and the US ecosystem (van Dijck et al., 2018)—in which Twitter and Weibo are two commercial microblogging services based on similar business models. Both of them need to increase DAUs to monetize advertising traffic and income. Their activities are regulated by laws in different markets. On one hand, they use algorithms to control the visibility of specific information and analyze users' tastes. On the other hand, they achieve partnerships with content providers and advertisers.

Based on the background of television in the broadcasting era, Couldry (2005a, 2008, 2012) proposes that reality television refers to media rituals that condense the symbolic power of media organization, enhance the boundary between reality and mediated reality, and frame values and ideologies in the mediated center of society. In Chapter 2, we apply the trends of discussions about two reality television programs on Weibo and Twitter, which show that live programs on the television screen can boost discussions on social media. We extend the theory of media rituals from television to social media, arguing that the discussions related to reality television programs on social media platforms are an extended part of the media rituals created by the form of reality television.

For Twitter, business in Spain is only a part of its overseas business. The cooperation of Twitter and broadcasters in Spain is limited in promoting visibility

on trending topics, accounts, or Tweets. Meanwhile, China is the main market of Weibo, which actively commercializes its public function under authoritarian regulations. In addition to controlling the visibility of information, Weibo's techniques for promoting television programs in China are more complicated, including achieving a tri-partied alliance among broadcasters and sponsors, designing a special interface for programs, and inserting a voting system. In Chapter 3, we show the different interfaces on Twitter and Weibo related to the hashtags of reality talent competition programs: *YWY* in China and *OT* in Spain. On Twitter, the hashtag afforded the function of a forum in which audiences, official accounts of the program, and accounts that were not related to the program could participate relatively equally. On Weibo, the hashtag was not limited to a forum for users to talk about the program; it afforded the function of an advertising campaign for the sponsor and the program in which ordinary users and audiences were engaged.

Chapters 2 and 3 conceptualize the comparability of this research; we find that the reality talent competition is a compatible sub-genre in the television industry of China and Spain. As the objects of empirical analysis, we discuss about two television programs, *YWY* in China and *OT* in Spain, on Weibo and Twitter. In Chapters 4 and 5, we identify neoliberalism as an ideology in the discussions about reality talent competition programs on social media. In the sub-genre of reality talent competition, the hegemony of neoliberalism depends on the promises of individual empowerment and self-activation. The inequality of human beings constructed by the narrative of success and failure is accepted. Participants are supposed to expose their ordinariness, as well as self-improvement, under external surveillance and judgments. Intense competition, rather than talent or skills, becomes the core of the narrative. Participants ought to engage positively in competition and be evaluated by external authorities whose validity or rationality can never be questioned (Couldry, 2008; Redden, 2018).

Apart from the conceptualization of the study objects, comparative research of different internet platforms also needs the deliberation of methodologies,

especially when computational methods become increasingly supportive in communication research. In this thesis, data are captured from Twitter and Weibo using two tools, Gooseeker and DMI-TCAT. We delimitate the time and queries required to collect data. In the combination of cultural studies with computational methods, the key step is to find quantifiable schemes from theories and apply them to empirical data in these two cases. Based on previous critical theories about neoliberalism in reality television and pilot studies in the database, we define three sentiment categories and seven semantic categories, where 30% of the data are randomly selected for manual analysis. Computer-assisted content analysis of the whole dataset is realized with the SK-learn package on Python. Then, we apply the statistical analysis on Excel and SPSS and use the Chi-square homogeneity test to identify the significant differences between the variables.

Owing to the interdisciplinary collaboration among computer science, social science, and humanities, SML is applied in content analysis to facilitate the coding process with high accuracy in subtly distinct categories. It also overcomes the complexity of non-English multi-lingual analysis in computer-assisted text analysis. These advantages facilitate data analysis in this research. Computational methods are not limited to the deductive quantitative approach. Deductive and inductive approaches can supplement each other. Inductive approaches, such as word clouds and topic modeling, can help researchers understand quantitative results more deeply.

Chapter 5 shows the results of content analysis. The quantitative content analysis shows that the statistical distributions of semantic meanings generally correspond to the global storytelling model of reality talent competition shows: the value of market competition embedded with the performance of talent and skills and the judgment of the ordinariness of contestants as human beings, which includes their personalities, behaviors, and appearances. The term competition and dream-making (CD) is the most frequently mentioned semantic term in China and Spain. This proves that intense competition is the core of the narrative in the two television programs. The value of market competition is enhanced in the



discussion about reality television programs on social media through the media rituals created by television organizations.

The discussions on social media demonstrate neoliberal values through reality talent competition shows in two television markets. We use Hofstede's dimensions of national culture, power distance and individualism, to explain the analytical results and discourse on social media. The neoliberal value of fair competition hardly localizes in both markets in China and Spain. Compared to Anglo-American countries, which are the origin of reality television, the socio-culture in China and Spain shows a relatively higher index in power distance and a lower index in individualism. It explains that, in both cases, the discussions on social media show negative sentiments in external authorities and competition. In the cultural background of high-power distance, people expect that power is unequally distributed in organizations or institutions. Social media users in China and Spain believe that the power of authorities is a determinant of market competition, which yields unfair results.

Individualism and the value of self-realization are localized successfully, and inter-personal relationships and collectivist values are marginalized in the two cases, even though the East-Asian format intends to promote pop stars in groups. In this study, the competition mechanism *per se* and the value of self-responsibility in games are not challenged by social media users. *YWY* is an East-Asian format that aims to promote pop-star groups. However, with the commercial aims of attracting audiences, this format boots battles between individual contestants and encourages fans to pick and vote for their favorite one in a group. Instead of team-ship, the competition and success of each individual are the vehicles of storytelling on both television programs and discussions on social media, regardless of the Western or Eastern culture.

Through the cross-media rituals created by reality television programs, the neoliberal value of free-market competition and individualism is successfully framed on social media in both cases. Such value is packaged under artistic talent and "realistic" performance and is endorsed by positive attitudes toward

competition and dream-making. The entire cross-media storytelling, from television to commercial social media, is driven by the attention economy in the digital age and controlled by algorithms.

The empirical part responds to the argument in Chapter 2: when we conceptualize reality television as media rituals, social media can be seen as a ritual space *in which ritual actions related to media take place and the symbolic power of media institutions is condensed*. Users' attention is caught by the multi-media matrix constructed by television and social media. Users' discussions about the principal narratives, talent, personality, behavior, and competitions vary with the content on the television screen. Through such discussions, television and social media frame and highlight the values of neoliberalism that form a part of the narrative of reality talent competition programs in China (YWY) and in Spain (OT). The symbolic power of television, social media, and the form of reality television is condensed through second-screen viewing practices.

However, the convergence of television and social media is realized to different extents. The empirical analysis also responds to the argument in Chapter 3. In the context of Spanish public television service and the U.S.-based internet ecosystem, *the hashtag on Twitter affords the function of a forum in which audiences, official accounts of the program, and accounts that are not related to the program can participate relatively equally*. In the context of commercially driven production and distribution of television content, as well as the internet ecosystem of China, *the hashtag on Weibo affords the function of an advertising campaign for the sponsor and the program in which ordinary users and audiences are engaged*.

On Twitter, the difference in semantic meanings between verified and unverified users is smaller than that on Weibo. On Twitter, verified users do not avoid the topic of competition and dream-making. On Weibo, verified users tend to avoid controversial topics about viral competition or judgment to authorities, including platforms, sponsors, and programs. Rather, they focus on positive descriptions of the talents, personalities, and appearances of contestants. Unverified users

judge more on competition, voting, and raking in the show and complain about external authorities.

Verified users on Twitter use a more neutral sentiment and do not avoid the topic of competition. On Weibo, positive sentiment occupies a dominant proportion in our corpus, which is a result co-shaped by technological and socio-cultural factors. In the step of data collection, the crawler captures data by reading the webpages of “Weibo Topic Square,” because of which our data are already filtered by the visibility defined by algorithms on Weibo. Moreover, “harmony” and “positive energy” are traditional values recognized and promoted by political power, which affect the commercial strategies of commercial platforms in China. We presume that Weibo’s algorithms filter the positive sentiment in this case. Compared to unverified users, verified users on Weibo focus on describing performance in each episode with a positive tone rather than controversial discussions about ranking and the fairness of the game.

In Chapter 3, we also show the slogan near the official account of YWY on the Weibo interface: “the harder you work, the better you will be” (越努力越幸运). The value of positivity and self-improvement is an overlapped field of the cultural value of neoliberalism and the mainstream socio-culture in China, which is allowed by political power and promoted by commercial power through popular culture in the advertising campaign supported by Weibo. To what extent is neoliberalism, as an ideology, allowed and legitimized in China? This can be a valuable question for further research.

Through the comparative analysis, we conclude that the glocalization of neoliberalism in reality television is not limited to the Foucauldian logic of governmentality (Ouellette & Hay, 2008). Springer (2012) argues that the discourse flow of neoliberalism is a “circuitous process of socio-spatial transformation.” The operation of discursive power can be understood from the perspective of the Gramscian sense of hegemony and Foucauldian sense of governmentality. According to Ouellette and Hay (2008), television as a cultural technology realizes governance at a distance by exposing the lifestyle and story

of neoliberalism on reality television. In this research, neoliberalism is a global hegemonic ideology that is localized with the global political-economic order in each country. The hegemony of neoliberal ideology, which includes the values of market competition, self-realization, and individualism, is interpellated as common sense through reality television and social media discussion in each local television market. *Operación Triunfo* and *Young with You* are two reality talent competition programs targeting young audiences in the two countries. Not only the value of market competition but also the worship toward talent and success, as well as the culture of surveillance, has been legitimized by watching reality talent competition programs on the television screen and commenting on the programs on social media. Although audiences challenge the fairness and the authorities in the games, audiences, or our socio-culture, they rarely challenge the legitimacy of neoliberalism, as an ideology, to conduct our everyday life in the commercial society. Future studies can focus on the counter-flow against the hegemony of neoliberalism and market competition in different socio-cultural contexts, as well as on the cultural products that can provide alternative values in the neoliberal market.



# References

- Ahlstrom, D., Yang, X., Wang, L., & Wu, C. (2018). A Global Perspective of Entrepreneurship and Innovation in China. *Multinational Business Review*, 26(4), 302–318. <https://doi.org/10.1108/MBR-08-2018-0058>
- Althusser, L. (2014). *On the reproduction of capitalism: Ideology and ideological state apparatuses* (J. Bidet & G. M. Goshgarian (eds.)). Verso.
- Álvarez, I. G., & Ramírez, M. (2009). Fórmulas y formatos de la telerealidad. Taxonomía del hipergénero docudramático. In B. León (Ed.), *Telerealidad: el mundo tras el cristal* (pp. 24–35). Comunicación Social Ediciones y Publicaciones.
- Amable, B. (2011). Morals and politics in the ideology of neo-liberalism. *Socio-Economic Review*, 9(1), 3–30. <https://doi.org/10.1093/ser/mwq015>
- Andrejevic, M. (2004). *Reality TV: The Work of Being Watched*. Rowman & Littlefield Publishers. [https://cataleg.uab.cat/iii/encore/record/C\\_\\_Rb1610199?lang=spi&suite=def](https://cataleg.uab.cat/iii/encore/record/C__Rb1610199?lang=spi&suite=def)
- Andrejevic, M. (2007). *iSPY: Surveillance and Power in the Interactive Era*. University Press of Kansas.
- Andrejevic, M. (2008). Watching Television Without Pity: The Productivity of Online Fans. *Television & New Media*, 9(1), 24–46. <https://doi.org/10.1177/1527476407307241>
- Andrejevic, M. (2010). Real-izing exploitation. In *The Politics of Reality Television* (pp. 32–44). Routledge.

- Andrejevic, M. (2011). Surveillance and Alienation in the Online Economy. *Surveillance and Society*, 8(3), 278–287.
- Appadurai, A. (1990). Disjuncture and Difference in the Global Cultural Economy. *Theory, Culture & Society*, 7(2), 295–310. <https://doi.org/10.1177/026327690007002017>
- Appadurai, A. (1996). *Modernity at Large: Cultural Dimensions of Globalization*. University of Minnesota Pres.
- Aramburu, M. (2015). Rental as A Taste of Freedom: The Decline of Home Ownership amongst Working-class Youth in Spain during Times of Crisis. *International Journal of Urban and Regional Research*, 39(6), 1172–1190. <https://doi.org/10.1111/1468-2427.12218>
- Arcila-Calderón, C., Ortega-Mohedano, F., Jiménez-Amores, J., & Trullenque, S. (2017). Análisis supervisado de sentimientos políticos en español: clasificación en tiempo real de tweets basada en aprendizaje automático. *El Profesional de La Información*, 26(5), 973. <https://doi.org/10.3145/epi.2017.sep.18>
- Aslama, M., & Pantti, M. (2007). Flagging Finnishness: Reproducing National Identity in Reality Television. *Television & New Media*, 8(1), 49–67. <https://doi.org/10.1177/1527476406296263>
- Avanesi, V. (2018). Second-screen subsumption. *Convergence: The International Journal of Research into New Media Technologies*, 19(2), 135485651878165. <https://doi.org/10.1177/1354856518781650>
- Bail, C. A. (2014). The cultural environment: Measuring culture with big data. *Theory and Society*, 43(3), 465–482. <https://doi.org/10.1007/s11186-014-9216-5>

- Ban, C. (2016). *Ruling Ideas: How Global Neoliberalism Goes Local*. Oxford University Press. <https://doi.org/10.1177/0094306118755396a>
- Banyuls, J., & Recio, A. (2015). A Crisis Inside the Crisis: Spain under a Conservative Neoliberalism. In S. Lehndorff (Ed.), *Divisive Integration. The Triumph of Failed ideas in Europe — revisited* (pp. 39–68). European Trade Union Institute (ETUI).
- Barlovento Comunicación. (2019). *Análisis televisivo 2019*. <https://www.barloventocomunicacion.es/audiencias-anuales/analisis-televisivo-2019/>
- Barlovento Comunicación. (2020). *Informe Barlovento: Análisis de las OTT y TV de Pago en España*. <https://www.barloventocomunicacion.es/informes-barlovento/analisis-ott-tv-pago-espana/>
- Beceiro, S. (2009). *La televisión por satélite en España : del servicio público a la televisión de pago* [Book]. Fragua.
- Bernabo, L. (2019). Expanding Television's Cultural Forum in the Digital Era: Prime Time Television, Twitter, and Black Lives Matter. *Journal of Broadcasting & Electronic Media*, 63(1), 77–93. <https://doi.org/10.1080/08838151.2019.1566862>
- Biressi, A., & Nunn, H. (2005). *Reality TV: realism and revelation*. Wallflower Press. [https://cataleg.uab.cat/iii/encore/record/C\\_\\_Rb1693800\\_\\_Srealitytv\\_\\_Orightresult\\_\\_U\\_\\_X7?lang=cat](https://cataleg.uab.cat/iii/encore/record/C__Rb1693800__Srealitytv__Orightresult__U__X7?lang=cat)
- Bourdieu, P. (1989a). Social Scape and Symbolic Power. *Sociological Theory*, 7(1), 14–25. <http://www2.southeastern.edu/Academics/Faculty/jbell/symbolicpower.pdf>



Bourdieu, P. (1989b). Social Space and Symbolic. *Sociological Theory*, 7(1), 14–25.

Bourdieu, P. (1991). *Language and Symbolic Power* (G. Raymond & M. Adamson (eds.); 1st ed.). Polity Press. <https://doi.org/10.2307/3685295>

Boyd, J. (2012). “Hey, We’re from Canada but We’re Diverse, Right?”: Neoliberalism, Multiculturalism, and Identity on So You Think You Can Dance Canada. *Critical Studies in Media Communication*, 29(4), 259–274. <https://doi.org/10.1080/15295036.2011.637222>

Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and Beyond: From Production to Prodesage* (Vol. 45). Peter Lang. <https://doi.org/10.1080/19331680802664697>

Bustamante, E. (2014). La Democratización del Sistema Cultural y Mediático Español. In M. C. Escudero (Ed.), *Medios de Proximidad: Participación social y Políticas Públicas* (pp. 21–34). Luces de Gálibo.

Cáceres, M. D. (2012). Telerrealidad y aprendizaje social. *Revista ICONO14. Revista Científica de Comunicación y Tecnologías Emergentes*, 5(1), 123. <https://doi.org/10.7195/ri14.v5i1.375>

Calvert, B., Casey, N., Casey, B., French, L., & Lewis, J. (2005). Television Studies: The Key Concepts. In B. Casey, N. Casey, B. Calvert, L. French, & J. Lewis (Eds.), *Television Studies: The Key Concepts*. Routledge. <https://doi.org/10.4324/9780203996591>

Carey, J. W. (1975). Communication and culture. *Communication Research*, 2(2), 173–191.

Carey, J. W. (1989). *Communication as culture : essays on media and society*.

Routledge,.

Carpentier, N. (2011). *Media and participation*. Intellect.  
[https://doi.org/10.1007/978-981-10-7035-8\\_47-1](https://doi.org/10.1007/978-981-10-7035-8_47-1)

Carpini, M. X. D. (2013). Breaking Boundaries: Can We Bridge the Quantitative Versus Qualitative Divide Through the Study of Entertainment and Politics? *International Journal of Communication*, 7(0), 21.

Carr, C. T., & Hayes, R. A. (2015). Social Media: Defining, Developing, and Divining. *Atlantic Journal of Communication*, 23(1), 46–65.  
<https://doi.org/10.1080/15456870.2015.972282>

Cascajosa, C. (2018). De la Televisión de Pago al Video bajo Demanda. Análisis de la Primera Temporada de la Estrategia de Producción Original de Ficción de Movistar+. *Fonseca, Journal of Communication*, 17(2018), 57–74.  
<https://doi.org/10.14201/fjc2018175774>

Castells, M. (2008). The new public sphere: Global civil Society, communication networks, and global governance. *Annals of the American Academy of Political and Social Science*, 616(1), 78–93.  
<https://doi.org/10.1177/0002716207311877>

Castells, M. (2013). *Communication power* (2nd ed.). OUP Oxford.

Castro, D., & Cascajosa, C. (2020). From Netflix to Movistar+: How Subscription Video-on-Demand Services Have Transformed Spanish TV Production. *JCMS: Journal of Cinema and Media Studies*, 59(3), 154–160.  
<https://doi.org/10.1353/cj.2020.0019>

Chalaby, J. K. (2011). The Making of an Entertainment Revolution: How the TV Format Trade Became a Global Industry. *European Journal of*

*Communication*, 26(4), 293–309.  
<https://doi.org/10.1177/0267323111423414>

Chalaby, J. K. (2012). At the Origin of a Global Industry: The TV Format Trade as an Anglo-American Invention. *Media, Culture and Society*, 34(1), 36–52.  
<https://doi.org/10.1177/0163443711427198>

Chen, X., Valdovinos Kaye, D. B., & Zeng, J. (2021). #PositiveEnergy Douyin: constructing “playful patriotism” in a Chinese short-video application. *Chinese Journal of Communication*, 14(1), 97–117.  
<https://doi.org/10.1080/17544750.2020.1761848>

Chen, Z., Su, C. C., Chen, A., Chen, Z., Su, C. C., & Chen, A. (2019). Top-down or Bottom-up? A Network Agenda-setting Study of Chinese Nationalism on Social Media Top-down or Bottom-up? A Network Agenda-setting Study of Chinese Nationalism on Social Media. *Journal of Broadcasting & Electronic Media*, 63(3), 512–533. <https://doi.org/10.1080/08838151.2019.1653104>

Chin, Y.-C. (2012). Public service broadcasting, public interest and individual rights in China. *Media, Culture and Society*, 34(7), 898–912.  
<https://doi.org/10.1177/0163443712452700>

Chin, Y.-C. (2017). *Television Regulation and Media Policy in China*. Routledge.

China Netcasting Services Association. (2019). *2019 China Netcasting Development Report. 2019 中国网络视听发展研究报告*.  
<http://www.cnsa.cn/index.php/industry/download/id/692.html>

China Netcasting Services Association. (2020). *Detailed Rules of Content Censorship Standards for Online Variety shows 网络综艺节目内容审核标准细则*.  
[http://www.cnsa.cn/index.php/infomation/dynamic\\_details/id/100/type/2.htm](http://www.cnsa.cn/index.php/infomation/dynamic_details/id/100/type/2.htm)

Cho, Y., & Zhu, H. (2017). Interpreting the Television Format Phenomenon between South Korea and China through Inter-Asian Frameworks. *International Journal of Communication, 11*, 2332–2349.

Coromina, Ò., Delgado, M., Prado, E., & García-Muñoz, N. (2020). Estrategias de activación de la audiencia social en Twitter de los programas más populares de la televisión generalista en Europa. *Estudios Sobre El Mensaje Periodístico, 26*(2), 473.

Coromina Rodríguez, Ò., Delgado, M., Prado, E., & García-Muñoz, N. (2020). Estrategias de activación de la audiencia social en Twitter de los programas más populares de la televisión generalista en Europa. *Estudios Sobre El Mensaje Periodístico, 26*(2), 473.

Cortes-Vazquez, J. A. (2020). In the Name of the People: The Populist Redefinition of Nature Conservation in Post-Crisis Spain. *Geoforum, 108*(2020), 110–118. <https://doi.org/10.1016/j.geoforum.2019.12.004>

Couldry, N. (2002). Playing for Celebrity: Big Brother as Ritual Event. *Television & New Media, 3*(3), 283–293. <https://doi.org/10.1177/152747640200300304>

Couldry, N. (2005a). *Media Rituals: A Critical Approach*. Routledge.

Couldry, N. (2005b). Media Rituals: Beyond Functionalism. In E. W. Rothenbuhler & M. Coman (Eds.), *Media Anthropology* (pp. 59–69). Sage Publications. <https://doi.org/10.4135/9781452233819.n6>

Couldry, N. (2008). Reality TV, or the Secret Theater of Neoliberalism. *Review of Education, Pedagogy, and Cultural Studies, 30*(1), 3–13. <https://doi.org/10.1080/10714410701821255>

Couldry, N. (2010). Making Populations Appear. In M. M. Kraidy & K. Sender (Eds.), *The Politics of Reality Television* (pp. 194–207). Routledge.

Couldry, N. (2012). *Media, society, world: Social theory and digital media practice*. Polity Press.

Couldry, N. (2019). *Media, Voice, Space and Power: Essays of Refraction*. Routledge.

Couldry, N., & Littler, J. (2011). Work, power and performance: Analysing the ‘reality’ game of the Apprentice.’ *Cultural Sociology*, 5(2), 263–279. <https://doi.org/10.1177/1749975510378191>

CSM Media Research. (2020). *CSM55 Annual Satellite TV Station All-day Ratings Rank in 2019 (2019年 csm55 年度卫视电视台 全天收视率排名)*. <https://www.csm59.com/csm59/dianshitai/20200103196.html>

Curtin, M. (2009). Matrix media. In *Television studies after TV* (pp. 19–29). Routledge.

Darling-Wolf, F. (2010). World citizens “à la française”: Star academy and the negotiation of “French” identities. In M. M. Kraidy & K. Sender (Eds.), *The Politics of Reality Television: Global Perspectives* (pp. 127–139). Routledge. <https://doi.org/10.4324/9780203843567>

Davies, W. (2014). Neoliberalism: A Bibliographic Review. *Theory, Culture & Society*, 31(8), 309–317. <https://doi.org/10.1177/0263276414546383>

Dayan, D., & Katz, E. (1992). *Media events : the live broadcasting of history*. Harvard University Press.

De Mooij, M. (2014). Human and mediated communication around the world: A

comprehensive review and analysis. In *Human and Mediated Communication Around the World: A Comprehensive Review and Analysis*. Springer,. <https://doi.org/10.1007/978-3-319-01249-0>

de Mooij, M., & Hofstede, G. (2010). The hofstede model: Applications to global branding and advertising strategy and research. *International Journal of Advertising*, 29(1), 85–110. <https://doi.org/10.2501/S026504870920104X>

De Valck, M., & Teyrlings, J. (Eds.). (2013). *After the Break Television Theory Today*. Amsterdam University Press. <https://doi.org/10.1515/9789048518678-010>

Deery, J. (2004). Reality TV as Advertainment. *Popular Communication*, 2(1), 1–20. <https://doi.org/10.1207/s15405710pc0201>

Deery, J. (2014). Mapping commercialization in reality television. In L. Ouellette (Ed.), *A companion to reality television*. Wiley.

Deery, J. (2015). *Reality TV*. Polity,. [https://cataleg.uab.cat/iii/encore/record/C\\_\\_Rb1961825?lang=spi&suite=def](https://cataleg.uab.cat/iii/encore/record/C__Rb1961825?lang=spi&suite=def)

DiMaggio, P. (2015). Adapting computational text analysis to social science (and vice versa). *Big Data and Society*, 2(2), 1–5. <https://doi.org/10.1177/2053951715602908>

Durkheim, É. (1995). *The Elementary Forms of Religious Life* (K. E. Fields (Ed.)). The Free Press. <https://books.google.com/books?hl=en&lr=&id=eEk1AwAAQBAJ&pgis=1>

Fernández Jara, L., Roel Vecino, M., Fernández, L., & Roel, M. (2014). Las actuales estrategias de programación de la TDT en España: entre la

comunicación de servicio público y la temática oferta privada. *Razón y Palabra*, 86, 37–25.

Flew, T. (2012). Michel Foucault's The Birth of Biopolitics and Contemporary Neo-liberalism Debates. *Thesis Eleven*, 108(1), 44–65.

Flew, T. (2018). Post-Globalisation. *Javnost - The Public*, 25(1–2), 102–109.  
<https://doi.org/10.1080/13183222.2018.1418958>

Foucault, M. (2008). *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979* (M. Senellart & G. Burchell (Eds.)). Springer.

Foucault, M. (2012). *Discipline and punish: The birth of the prison*. Vintage.

Fuchs, C. (2014). Social media and the public sphere. *TripleC*, 12(1), 57–101.  
<https://doi.org/10.31269/vol12iss1pp57-101>

Fuchs, C. (2016). Baidu, Weibo and Renren: the global political economy of social media in China. *Asian Journal of Communication*, 26(1), 14–41.  
<https://doi.org/10.1080/01292986.2015.1041537>

Galtung, J. (1990). Cultural violence. *Journal of Peace Research*, 27(3), 291–305.

García-Canclini, N. (2001). *Culturas Híbridas. Estrategias para entrar y salir de la modernidad*. Paidós,.  
[https://cataleg.uab.cat/iii/encore/record/C\\_\\_Rb1608365\\_\\_SCulturas h%EDbridas: estrategias para entrar y salir de la modernidad\\_\\_Orightresult\\_\\_U\\_\\_X4?lang=spi](https://cataleg.uab.cat/iii/encore/record/C__Rb1608365__SCulturas%EDbridas%3A%20estrategias%20para%20entrar%20y%20salir%20de%20la%20modernidad__Orightresult__U__X4?lang=spi)

García, Joaquín. (2006). El Cambio Audiovisual. La Tdt Sustituye a La Televisión Analógica En España. *Número*, 4(2006), 1–87. [www.hologramatica.com.ar](http://www.hologramatica.com.ar)

- García, José. (2013). Televisión y concentración en España: el duopolio de Mediaset y Atresmedia. *Palabra Clave*, 16(2), 366–397. <http://www.scielo.org.co/pdf/pacla/v16n2/v16n2a05.pdf>
- Gil de Zuniga, H., Garcia-Perdomo, V., & McGregor, S. C. (2015). What Is Second Screening? Exploring Motivations of Second Screen Use and Its Effect on Online Political Participation. *Journal of Communication*, 65(5), 793–815. <https://doi.org/10.1111/jcom.12174>
- Gillespie, T. (2010). The politics of “platforms.” *New Media and Society*, 12(3), 347–364. <https://doi.org/10.1177/1461444809342738>
- Goffman, E. (1986). *Frame analysis: An essay on the organization of experience*. Northeastern University Press. <https://doi.org/10.1176/ajp.132.10.1093-a>
- Göttlich, U. (2010). Media Event Culture and Lifestyle Management. Observation on the influence of media events on everyday culture. In N. Couldry, A. Hepp, & F. Krotz (Eds.), *Media Events in a Global Age* (pp. 172–183).
- Gramsci, A. (1992). *Selection from the prison notebooks* (Q. Hoare & G. N. Smith (Eds.); 11th ed.). International Publishers. <https://doi.org/10.1080/10286630902971603>
- Gray, J., & Lotz, A. D. (2018). Television studies. In *Cambridge, UK: Polity* (2nd ed., Issue July). <https://doi.org/10.1109/COMPSAC.2011.4>
- Grazian, D. (2010). Neoliberalism and the Realities of Reality Television. *Contexts*, 9(2), 68–71. <https://doi.org/10.1525/ctx.2010.9.2.68>
- Guo, L., & Vargo, C. J. (2020). Predictors of International News Flow: Exploring a Networked Global Media System. *Journal of Broadcasting and Electronic Media*, 64(3), 418–437. <https://doi.org/10.1080/08838151.2020.1796391>



- Gutiérrez Lozano, J. F. (2020). The origins of premium television fiction in Spain: Canal+ and its evolution towards new ways of production and distribution as Movistar+. In *A European Television Fiction Renaissance* (pp. 213–226). Routledge.
- Habermas, J., Lennox, S., & Lennox, F. (1974). The Public Sphere: An Encyclopedia Article (1964). *New German Critique*, 3(3), 49. <https://doi.org/10.2307/487737>
- Hall, S. (1980). Encoding/decoding. In *Culture, media, language : working papers in cultural studies : 1972-79* (pp. 128–138). Routledge.
- Hall, S. (2011). The Neo-liberal Revolution. *Cultural Studies*, 25(6), 705–728. <https://doi.org/10.1080/09502386.2011.619886>
- Hall, S., Hobson, D., Lowe, A., & Willis, P. (Eds.). (1980). *Culture, Media, Language: Working Papers in Culutral Studies 1972-79*.
- Hall, S., Massey, D., & Rustin, M. (2013). After neoliberalism: analysing the present. *Soundings*, 53(53), 8–22. <https://doi.org/10.3898/136266213806045656>
- Hall, S., & O’Shea, A. (2013). Common-sense neoliberalism. *Soundings*, 55, 1–19. [papers3://publication/uuid/2F00E0AF-4931-48A5-BFBE-D9388DBA0E70](https://doi.org/10.1080/136266213806045656)
- Hallin, D. C., & Mancini, P. (2004). *Comparing media systems : Three Models of Media and Politics* (Issue 1). Cambridge University Press. <https://doi.org/10.16309/j.cnki.issn.1007-1776.2003.03.004>
- Harvey, D. (2005). *A Brief History of Neoliberalism*. Oxford University Press. <https://doi.org/10.1111/j.1944-8287.2006.tb00327.x>

- Hepp, A. (2013). *Cultures of mediatization*. John Wiley & Sons.  
[https://doi.org/10.1016/S1090-9516\(03\)00017-8](https://doi.org/10.1016/S1090-9516(03)00017-8)
- Hepp, A., & Couldry, N. (2009). What Should Comparative Media Research be comparing? Towards a Transcultural Approach to “Media Cultures.” In D. K. Thussu (Ed.), *Internationalizing Media Studies* (pp. 32–48). Routledge.
- Herman, E. S., & McChesney, R. W. (1997). *The Global Media: The New Missionaries of Corporate Capitalism*. Bloomsbury Academic Press.  
<https://doi.org/10.5040/9781472596772>
- Hill, A. (2005). *Reality TV: audiences and popular factual television*. Routledge.  
[https://cataleg.uab.cat/iii/encore/record/C\\_\\_Rb1649554\\_\\_Srealitytv\\_\\_Orightresult\\_\\_U\\_\\_X7?lang=spi](https://cataleg.uab.cat/iii/encore/record/C__Rb1649554__Srealitytv__Orightresult__U__X7?lang=spi)
- Hill, A. (2019). Media experiences : engaging with drama and reality television. In *Media Experiences: Engaging with Drama and Reality Television*.  
<http://mendeley.csuc.cat/fitxers/4b5620fdd048736b657d6e741d839c9c>
- Hofstede, G. (2001). *Culture’s consequences: comparing values, behaviors, institutions and organizations across nations*. Sage.
- Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1), 1–26.  
<https://doi.org/10.9707/2307-0919.1014>
- Hudson, S., & Hudson, D. (2006). Branded Entertainment: A New Advertising Technique or Product Placement in Disguise? *Journal of Marketing Management*, 22(5–6), 489–504.  
<https://doi.org/10.1362/026725706777978703>
- Inglis, D. (2016). Sociology and cultural studies: A close and fraught relationship.

In I. David & A. Anna-Mari (Eds.), *The Sage handbook of cultural sociology* (pp. 307–321). Sage.

IQiyi. (2020). *IQIYI Released Financial Report in Q1 2020: The Total Revenue of 7.6 Billion Exceeded the Expected, Membership Revenue and the Number of Members Increased Significantly*. 爱奇艺发布2020年Q1财报: 总营收76亿超预期 会员收入与数量大幅增长 .  
<http://www.iqiyi.com/common/20200519/b46b2304596fe548.html>

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York University press.

Jenkins, H., Ford, S., & Green, J. (2013). *Spreadable media : creating value and meaning in a networked culture*. New York University Press.

Jensen, K. B., & Helles, R. (2011). The internet as a cultural forum: Implications for research. *New Media and Society*, 13(4), 517–533.  
<https://doi.org/10.1177/1461444810373531>

Jiang, X. (2019). Parenting Practices and Gender Roles in the Modern Chinese Family: Interculturalism in *Where Are We Going, Dad?* *Television and New Media*, 20(5), 460–475. <https://doi.org/10.1177/1527476418777729>

Jorge, A., Amaral, I., & Mathieu, D. (2018). The co-option of audiences in the attention economy: Introduction. *Observatorio (OBS\*)*, 2018, 1–4.  
<https://doi.org/10.15847/obsobs0001381>

Kantar. (2020). *Anuario Social TV 2019*.  
<https://www.kantar.com/es/inspiracion/publicidad-y-medios/anuario-de-social-tv-2019>

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges

and opportunities of Social Media. *Business Horizons*, 53(1), 59–68.  
<https://doi.org/10.1016/j.bushor.2009.09.003>

Keane, M. (2015). *The Chinese Television Industry*. British Film Institute.  
<https://doi.org/10.1007/978-1-84457-686-9>

Keane, M., & Zhang, J. D. (2017). Where are We Going? Parent–Child Television Reality Programmes in China. *Media, Culture and Society*, 39(5), 630–643.  
<https://doi.org/10.1177/0163443716663641>

Kraidy, M. M. (2009). Reality Television and Arab Politics: Contention in Public Life. In *Reality Television and Arab Politics: Contention in Public Life*. Cambridge University Press ., <https://doi.org/10.1017/CBO9780511814259>

Kraidy, M. M. (2010). Reality television in new worlds. In *The Politics of Reality Television: Global Perspectives* (pp. 207–218). Routledge.  
<https://doi.org/10.4324/9780203843567>

Krippendorff, K. (2019). *Content Analysis An Introduction to Its Methodology* (4th ed.). SAGE Publications.

Lee, C.-C. (1980). *Media Imperialism Reconsidered*. SAGE Beverly Hills.

Lee, H. J., & Andrejevic, M. (2013). Second-screen theory: From the Democratic Surround to the Digital Enclosure. In *Connected Viewing: Selling, Streaming, and Sharing Media in the Digital Era* (pp. 40–61). Routledge.  
<https://doi.org/10.4324/9780203067994>

Li, J., & Hu, Z. (2019). 2018 Chinese Television Industry Development Report. 2018年中国电视产业发展报告. In B. Cui, L. Xu, M. Ding, M. Hang, & K. Zhou (Eds.), *Report on Development of China's Media Industry (2019) 中国传媒产业发展报告 (2019)* (pp. 71–80). Social Sciences Academic Press

(China).

Li, L. (2013). Chinese Television between the State and the Market: An Analysis of the Business Reality Show *Win* in China. *Media, Culture and Society*, 35(7), 906–917. <https://doi.org/10.1177/0163443713495509>

Li, M. (2008). China debates soft power. *Chinese Journal of International Politics*, 2(2), 287–308. <https://doi.org/10.1093/cjip/pon011>

Li, Z., & Sun, Y. (2019). OTT Industry Development in China. *Journalism and Mass Communication*, 9(4), 164–175. <https://doi.org/10.17265/2160-6579/2019.04.002>

Lin, X. D. (2019). Playing with history and tradition: television educational programs in contemporary China. *Media, Culture and Society*, 169–175. <https://doi.org/10.1177/0163443719876623>

Livingstone, S. (1998). Audience research at the crossroads: The “implied audience” in media and cultural theory. *European Journal of Cultural Studies*, 1(2), 193–217. <https://doi.org/10.1177/136754949800100203>

Livingstone, S. (2003). On the Challenges of Cross-National Comparative Media Research. *European Journal of Communication*, 18(4), 477–500. <https://doi.org/10.1177/0267323103184003>

Llorens, C. (2010). Spain’s Media Concentration Policy : A Patchwork Crucial to the Understanding of the Spanish Media System. *International Journal of Communication*, 4, 844–864.

Lotz, A. D. (2004). Using “network” theory in the postnetwork era: fictional 9/11 US television discourse as a “cultural forum.” *Screen*, 45(4), 423–439. <https://doi.org/10.1093/screen/45.4.423>

- Luo, W. (2010). Chinese Reality TV and Politics: Entertainment vs. Socio-Political Responsibility. In L. Baruh & J. H. Park (Eds.), *Reel Politics: Reality Television as a Platform for Political Discourse* (pp. 165–181). Cambridge Scholar Publishing.
- Macmillan, G. (2015). *Why Twitter Owns TV Conversations - Twitter Marketing*. <https://marketing.twitter.com/na/en/insights/8-reasons-why-twitter-is-the-home-of-tv-conversation>
- Martín-Artilles, A., Molina, O., & Carrasquer, P. (2016). Incertidumbre y actitudes pro-redistributivas: mercados de trabajo y modelos de bienestar en Europa. *Política y Sociedad*, 53(1), 187–215. [https://doi.org/10.5209/rev\\_POSO.2016.v53.n1.47684](https://doi.org/10.5209/rev_POSO.2016.v53.n1.47684)
- Mateos, J. (2011). La Telerrealidad en las Televisiones Españolas (1990-1994). *Comunicación y Sociedad*, 15, 169–194. <https://doi.org/10.32870/cys.v0i15.1144>
- McCarthy, A. (2007). Reality Television: a Neoliberal Theater of Suffering. *Social Text*, 25(4), 17–42. <https://doi.org/10.1215/01642472-2007-010>
- McGuigan, J. (2016). *Neoliberal Culture*. Palgrave Macmillan.
- McLuhan, M., & Fiore, Q. (1967). The medium is the message. *New York*, 123, 126–128.
- McLuhan, M., Fiore, Q., & Agel, J. (1968). *War and peace in the global village* (Vol. 127). Bantam Books.
- McVeigh, P. (2005). Embedding neoliberalism in Spain: From Franquismo to neoliberalism. In S. Soederberg, G. Menz, & P. G. Cerny (Eds.), *Internalizing globalization* (pp. 90–105). Springer.

- Medina-Nieto, M., & Labio-Bernal, A. (2019). 'Production Companies' Concentration and International Capital in Commercial Spanish television: Antena 3 and TeleCinco. *Revista Latina de Comunicación, 74*, 857–872. <https://doi.org/10.4185/RLCS>
- Miller, T., & Kraidy, M. M. (2016). Global media studies. In *Global Media Studies*. Polity Press. <http://mendeley.csuc.cat/fitxers/ebe8d279e2466bd2ff7d3739a853cd2b>
- Mohr, J. W., Bail, C. A., Frye, M., Lena, J. C., Lizardo, O., McDonnell, T. E., Mische, A., Tavory, I., & Wherry, F. F. (2019). *Measuring Culture*. Columbia University Press.
- Monclús, B., Garcia-Muñoz, N., Delgado, M., Franquet, R., Prado, E., & Mendoza, A. (2019). A discrete proposal: Appeals to the social networks of popular programmes in Europe. *Cuadernos. Info, 45*, 227–240.
- Monclús, B., & Vicente, M. (2009). Reality games en España: crónica de un éxito anunciado. In B. León (Ed.), *Telerrealidad: el mundo tras el cristal* (pp. 72–87). Comunicación Social.
- Monclús, B., & Vicente, M. (2017). Operación Triunfo : The Evolution of Reality TV in Spain . Production , Scheduling Strategies and Audience Analyses. *Textual & Visual Media, 10*, 83–102.
- Moreno-Caballud, L. (2015). *Cultures of Anyone: Studies on Cultural Democratization in the Spanish Neoliberal Crisis*. Liverpool University Press.
- Navar-Gill, A. (2020). The Golden Ratio of Algorithms to Artists? Streaming Services and the Platformization of Creativity in American Television Production. *Social Media and Society, 6*(3). <https://doi.org/10.1177/2056305120940701>

- Navarro, C., Delgado, M., Paz, E., Garcia-Muñoz, N., & Mendoza, A. (2021). Comparative analysis of the broadcaster's Twitter strategies of the highest-rated British and Spanish TV series. *Catalan Journal of Communication & Cultural Studies*, 13(1), 101–119.
- Nelson, L. K. (2020). Computational Grounded Theory: A Methodological Framework. *Sociological Methods and Research*, 49(1), 3–42. <https://doi.org/10.1177/0049124117729703>
- Nelson, L. K., Burk, D., Knudsen, M., & Mccall, L. (2021). The Future of Coding: A Comparison of Hand-Coding and Three Types of Computer-Assisted Text Analysis Methods. *Sociological Methods & Research*, 50(1), 202–237. <https://doi.org/10.1177/0049124118769114>
- Newcomb, H. M., & Hirsch, P. M. (1983). Television as a Cultural Forum. *Quarterly Review of Film & Video*, 8(3), 45–55. <https://doi.org/10.2307/2065332>
- Nieborg, D. B., & Poell, T. (2018). The platformization of cultural production: Theorizing the contingent cultural commodity. *New Media and Society*, 20(11), 4275–4292. <https://doi.org/10.1177/1461444818769694>
- Nik-Khah, E., & van Horn, R. (2012). Inland empire: Economics imperialism as an imperative of Chicago neoliberalism. *Journal of Economic Methodology*, 19(3), 259–282. <https://doi.org/10.1080/1350178X.2012.714147>
- Noya-Miranda, F. J. (1999). El Valor de la Ambivalencia. Las Actitudes ante la Meritocracia, la Igualdad y el Estado de Bienestar en España en Perspectiva Vomparada. *Reis*, 86(99), 185–221.
- Nye, J. J. S. (2004). *Soft power: The means to success in world politics*. Public Affairs.



- Obar, J. A., & Wildman, S. (2015). Social media definition and the governance challenge: An introduction to the special issue. *Telecommunications Policy*, 39(9), 745–750. <https://doi.org/10.1016/j.telpol.2015.07.014>
- Oliva, M. (2013). *Telerrealidad, Disciplina e Identidad: los Makeover Shows en España*. Editorial de la Universitat Oberta de Catalunya. <http://mendeley.csuc.cat/fitxers/b967bf7850f34a5b377b01d10d4f7b63>
- Oliva, M., & Pérez-Latorre, Ó. (2020). ‘Celebrities also Suffer from the Economic Crisis’: Broke Celebrities and Neoliberal Narratives from Spain’s Great Recession. *Celebrity Studies*, 11(2), 237–256. <https://doi.org/10.1080/19392397.2018.1557533>
- Ouellette, L. (2014). Introduction. In L. Ouellette (Ed.), *A companion to reality television* (pp. 1–8). Wiley.
- Ouellette, L., & Hay, J. (2008). *Better Living through Reality TV: Television and Post-Welfare Citizenship*. Blackwell.
- Palmer, G. (2002). Big Brother: An Experiment in Governance. *Television & New Media*, 3(3), 295–310. <https://doi.org/10.1177/152747640200300305>
- Palmer, G. (2004). Class and transformation in lifestyle television. In Holmes, Su & D. Jermyn (Eds.), *Understanding reality television* (pp. 173–190).
- Palmer, G. (2010). Governing bodies. In *The Politics of Reality Television* (pp. 79–91). Routledge.
- Pieterse, J. N. (2019). *Globalization and Culture: Global Mélange*. Rowman & Littlefield.
- Prádanos, L. I. (2018). *Postgrowth Imaginaries: New Ecologies and*

*Counterhegemonic Culture in Post-2008 Spain*. Liverpool University Press.  
<https://doi.org/10.1017/CBO9781107415324.004>

Prado, E. (2002). Telerrealidad: Globalización y Uniformización. In J. V. Beneyto (Ed.), *La Ventana Global* (pp. 369–394). Taurus.

Prado, E. (2003). La espectacularización de la realidad. In *El anuario de la televisión*.

Prado, E. (2017). El audiovisual on line over the top. El futuro del audiovisual europeo y español. *Informe Sobre El Estado de La Cultura En España. Igualdad y Diversidad En La Era Digital*. Madrid: Fundación Alternativas, 127–144.

Prado, E., & Delgado, M. (2010). Tendencias internacionales de programación General Tv Channels in The Digital Age . International Trends in Programming. *Revista TELOS*, 84, 1–14.

Qin, J. (2015). Hero on Twitter, Traitor on News: How Social Media and Legacy News Frame Snowden. *International Journal of Press/Politics*, 20(2), 166–184. <https://doi.org/10.1177/1940161214566709>

Qing, S., & Prado, E. (2020). Advertisements and Engagement Strategies on a Cross-media Television Event : A Case Study of Tmall Gala. *Observatorio*, 14(2), 137–157. <http://obs.obercom.pt/index.php/obs/article/view/1602>

Quintas, N. (2018). El ocaso de la televisión pública española ante su audiencia: un lustro decadente (2010-2015). *Palabra Clave*, 21(1), 165–190. <https://doi.org/10.5294/pacla.2018.21.1.8>

Redden, G. (2018). Is Reality TV Neoliberal? *Television & New Media*, 19(5), 399–414. <https://doi.org/10.1177/1527476417728377>

- Robertson, R. (1990). Mapping the Global Condition: Globalization as the Central Concept. *Theory, Culture & Society*, 7(2–3), 15–30.
- Robertson, R. (2012). Globalisation or Glocalisation? *Journal of International Communication*, 18(2), 191–208.  
<https://doi.org/10.1080/13216597.2012.709925>
- Rofel, L. (2007). Desiring China: Experiments in Neoliberalism, Sexuality, and Public Culture. In *Desiring China*. Duke University Press.  
<https://doi.org/10.1215/9780822389903-007>
- Rogers, R. (2013). *Digital methods*. MIT press.
- Rogers, R. (2019). *Doing digital methods*. Sage.
- Salganik, M. J. (2019). Bit by Bit by bit: Social research in the digital age. In *Princeton University Press*. Princeton University Press.  
[https://doi.org/10.1016/S0262-4079\(13\)61618-8](https://doi.org/10.1016/S0262-4079(13)61618-8)
- Sender, K. (2010). Real worlds: Migrating genres, travelling participants, shifting theories. In M. M. Kraidy & K. Sender (Eds.), *The Politics of Reality Television: Global Perspectives* (pp. 1–17). Routledge.  
<https://doi.org/10.4324/9780203843567>
- Shao, L., & Zhang, H. (2016). Global voice and social television: Exploring microblogging responses to “ *The Voice* ” shows in China and Germany. *Communication and the Public*, 1(2), 230–243.  
<https://doi.org/10.1177/2057047316649962>
- Skeggs, B., & Wood, H. (2012). Reacting to reality television: Performance, audience and value. In *Reacting to Reality Television: Performance, Audience and Value*. Routledge. <https://doi.org/10.4324/9780203144237>

- So, A. Y., & Chu, Y. (2012). The transition from neoliberalism to state neoliberalism in China at the turn of the twenty-first century. In *Developmental politics in transition* (pp. 166–187). Springer.
- Solà-Garcia, A. (2019). The Past Belongs to Everyone. Neoliberalism and the Normalization of Memory in Spain and Argentina's Post-Dictatorships. *Anuario de Literatura Comparada*, 9, 67–84.
- Springer, S. (2012). Neoliberalism as discourse: Between Foucauldian political economy and Marxian poststructuralism. *Critical Discourse Studies*, 9(2), 133–147. <https://doi.org/10.1080/17405904.2012.656375>
- Statista. (2020). *Twitter: Most Users by Country*. <https://www.statista.com/statistics/242606/number-of-active-twitter-users-in-selected-countries/>
- Stiernstedt, F., & Jakobsson, P. (2017). Watching reality from a distance: class, genre and reality television. *Media, Culture and Society*, 39(5), 697–714. <https://doi.org/10.1177/0163443716663643>
- Su, L. Y. F., Cacciatore, M. A., Liang, X., Brossard, D., Scheufele, D. A., & Xenos, M. A. (2017). Analyzing public sentiments online: combining human- and computer-based content analysis. *Information Communication and Society*, 20(3), 406–427. <https://doi.org/10.1080/1369118X.2016.1182197>
- Taylor, C. (2002). Modern social imaginaries. *Public Culture*, 14(1), 91–124. <https://doi.org/10.1215/08992363-14-1-91>
- Thompson, J. B. (John B. (1990). *Ideology and modern culture: critical social theory in the era of mass communication*. Stanford University Press.
- Thussu, D. K. (2006). Mapping global media flow and contra. In D. K. Thussu

(Ed.), *Media on the move: Global flow and contra-flow* (pp. 10–20).  
Routledge.

Thussu, D. K. (2019). *International communication: Continuity and change*.  
Bloomsbury Publishing.

Tomlinson, J. (1999). *Globalization and Culture*. The University of Chicago Press.

Treanor, P. (2005). *Neoliberalism: origins, theory, definition*. Reperibile  
All'indirizzo. <http://web.inter.nl.net/users/Paul.Treanor/neoliberalism.html>

Twitter. (2022). *Twitter Announces First Quarter 2021 Results*.  
[https://s22.q4cdn.com/826641620/files/doc\\_financials/2022/q1/Final-Q1'22-earnings-release.pdf](https://s22.q4cdn.com/826641620/files/doc_financials/2022/q1/Final-Q1'22-earnings-release.pdf)

Twitter Inc. (n.d.). *Movie and TV show Targeting*.  
<https://business.twitter.com/en/help/campaign-setup/campaign-targeting/tv-targeting.html>

Twitter Inc. (2020). *Fiscal Year 2019 Annual Report*.  
[https://s22.q4cdn.com/826641620/files/doc\\_financials/2019/FiscalYR2019\\_Twitter\\_Annual\\_Report-\(3\).pdf](https://s22.q4cdn.com/826641620/files/doc_financials/2019/FiscalYR2019_Twitter_Annual_Report-(3).pdf)

van Atteveldt, W., van der Velden, M. A. C. G., & Boukes, M. (2021). The Validity of Sentiment Analysis: Comparing Manual Annotation, Crowd-Coding, Dictionary Approaches, and Machine Learning Algorithms. *Communication Methods and Measures*, 15(2), 121–140.  
<https://doi.org/10.1080/19312458.2020.1869198>

van Dijck, J. (2013a). *The Culture of Connectivity: A Critical History of Social Media*. Oxford University Press.  
<https://doi.org/10.1093/acprof:oso/9780199970773.001.0001>

- van Dijck, J. (2013b). YouTube beyond technology and cultural form. In M. De Valck & J. Teyrlings (Eds.), *After the break: television theory today* (pp. 147–160). Amsterdam University Press Amsterdam.
- van Dijck, J., & Poell, T. (2013). Understanding Social Media Logic. *Media and Communication*, 1(1), 2–14. <https://doi.org/10.12924/mac2013.01010002>
- van Dijck, J., & Poell, T. (2015). Making Public Television Social? Public Service Broadcasting and the Challenges of Social Media. *Television & New Media*, 16(2), 148–164. <https://doi.org/10.1177/1527476414527136>
- van Dijck, J., Poell, T., & De Waal, M. (2018). *The Platform Society: Public Values in a Connective World*. Oxford University Press.
- Vidal Beltrán, J. M. (2011). La Calidad Televisiva en el Marco Regulatorio y el Sistema Audiovisua: el Nuevo Marco Jurídico para la Regulación de las Emisiones y Contenidos de los Medios de Comunicación Audiovisuales. In M. Francés i Domenec (Ed.), *Contenidos y Formatos de Calidad en la Nueva Television* (pp. 11–42). Instituto RTVE.
- Volcic, Z., & Andrejevic, M. (2009). That's Me: Nationalism and Identity on Balkan Reality TV. *Canadian Journal of Communication*, 34(1), 7–24. <https://doi.org/10.22230/cjc.2009v34n1a2113>
- Volcic, Z., & Andrejevic, M. (2010). Commercial nationalism on Balkan reality TV. In *The politics of reality television* (pp. 127–140). Routledge.
- Volcic, Z., & Andrejevic, M. (2011). Nation branding in the era of commercial nationalism. *International Journal of Communication*, 5(1), 598–618.
- Wallerstein, I. (1990). Culture as the ideological battleground of the modern world-system. *Theory, Culture & Society*, 7(2–3), 31–55.

- Wang, H., & Shi, F. (2017). Weibo use and political participation: the mechanism explaining the positive effect of Weibo use on online political participation among college students in contemporary China. *Information, Communication and Society*, 21(4), 516–530. <https://doi.org/10.1080/1369118X.2017.1289234>
- Wang, Q. (2019). Analysis of the ratings of Chinese variety shows in 2018. In B. Cui, L. Xu, M. Ding, M. Hang, & K. Zhou (Eds.), *Report on Development of China's Media Industry (2019) 中国传媒产业发展报告 (2019)* (pp. 116–122). Social Sciences Academic Press (China).
- Wang, W. Y., & Lobato, R. (2019). Chinese Video Streaming Services in the Context of Global Platform Studies. *Chinese Journal of Communication*, 12(3), 356–371. <https://doi.org/10.1080/17544750.2019.1584119>
- Wardrip, N., Redi, M., Hochman, N., Akdag, A., Lucas, F., Son, H., Halloran, K. O., Rodrigues, I. G., & Kuester, F. (2018). *Cultural Analytics* (Issue 2016).
- Watanabe, K. (2021). Latent Semantic Scaling: A Semisupervised Text Analysis Technique for New Domains and Languages. *Communication Methods and Measures*, 15(2), 81–102. <https://doi.org/10.1080/19312458.2020.1832976>
- Wayne, M. L. (2018). Netflix, Amazon, and branded television content in subscription video on-demand portals. *Media, Culture & Society*, 40(5), 016344371773611. <https://doi.org/10.1177/0163443717736118>
- Wayne, M. L., & Castro, D. (2020). SVOD Global Expansion in Cross-National Comparative Perspective: Netflix in Israel and Spain. *Television and New Media*, 00(0), 1–18. <https://doi.org/10.1177/1527476420926496>
- Weber, I. M. (2018). China and neoliberalism: Moving beyond the China is/is not Neoliberal Dichotomy. In D. Cahill, M. Cooper, M. Konings, & D. Primrose

- (Eds.), *The SAGE handbook of neoliberalism* (pp. 219–233). Sage Thousand Oaks, CA.
- Weibo. (2020). *Weibo annual financial report 2019*. <http://ir.weibo.com/static-files/9537b1c6-da60-4bd4-8c66-9393d72ca7a3>
- Williams, R. (1975). *Television : Technology and Cultural Form*. Schocken Books,.
- Wu, J., & Yun, G. (2018). From modernization to neoliberalism? How IT opinion leaders imagine the information society. *International Communication Gazette*, 80(1), 7–29. <https://doi.org/10.1177/1748048517742773>
- Xinhua. (2019). *347 Million Users Paid for Online Video in 2018*. 2018年网络视频付费用户已达3.47亿人 - 新华网. [http://www.xinhuanet.com/2019-06/12/c\\_1124611965.htm](http://www.xinhuanet.com/2019-06/12/c_1124611965.htm)
- Yang, G. (2014). Political contestation in Chinese digital spaces: Deepening the critical inquiry. *China Information*, 28(2), 135–144. <https://doi.org/10.1177/0920203X14539910>
- Yang, L. (2013). Reality Talent Shows in China: Transnational Format, Affective Engagement, and the Chinese Dream. In L. Ouellette (Ed.), *A Companion to Reality Television* (pp. 516–540). John Wiley & Sons.
- YiCai. (2015). *Internet TV grabs 7 "licensors": only Mango TV is still single* 互联网电视抢7大"牌照商": 仅芒果TV还单身. <https://www.yicai.com/news/4617252.html>
- Young, Y. (2012). Comparing Interculture Communication. In F. Esser & T. Hanitzsch (Eds.), *The Handbook of Comparative Communication Research* (pp. 119–133).



- Zhang, H. (2011). The Globalization of Chinese Television: The Role of The Party-State. *International Communication Gazette*, 73(7), 573–594. <https://doi.org/10.1177/1748048511417156>
- Zhang, L., & Zhang, W. (2018). The impact of monetization on the public functions of Weibo. *Global Media and China*, 3(3), 195–212. <https://doi.org/10.1177/2059436418806335>
- Zhang, Q., & Negus, K. (2020). East Asian pop music idol production and the emergence of data fandom in China. *International Journal of Cultural Studies*, 23(4), 493–511. <https://doi.org/10.1177/1367877920904064>
- Zhang, W. (2016). *The internet and new social formation in China: fandom publics in the making*. Routledge. <https://www.routledge.com/The-Internet-and-New-Social-Formation-in-China-Fandom-Publics-in-the-Making/Zhang/p/book/9781138799264>
- Zhang, Yafei, Weare, A. M., Koh, H., & Chen, L. (2016). Cultural Trends of Audience Online Interaction with Vocal Talent Shows: A Comparative Study between China and the US. *Journal of Intercultural Communication Research*, 45(3), 196–213. <https://doi.org/10.1080/17475759.2016.1165726>
- Zhang, Yuanchen. (2018). How Culture Influences Emotion Display in Transnational Television Formats: The Case of The Voice of China. *Media and Communication*, 6(3), 40. <https://doi.org/10.17645/mac.v6i3.1455>
- Zhao, H., & Liu, J. (2020). Comparative Studies of Internet Use: A Review of SSCI-Indexed Journal Articles, 1969–2019. *International Journal of Communication*, 14, 5799–5821.
- Zhao, Y., & Guo, Z. (2005). Television in China: History, political economy, and ideology. In J. Wasko (Ed.), *A companion to television* (pp. 521–539). Wiley Online Library.

# **Appendix**

## **Spanish Semantic analysis**

## Semantic ESP

In [52]:

```
# Load EDA Pkgs
import pandas as pd
import numpy as np

# Load Data Viz Pkgs
import matplotlib.pyplot as plt
import seaborn as sns

###pip install neattext
import neattext as nt
import neattext.functions as nfx

# ML Pkgs
#pip install scikit-multilearn
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.neighbors import KNeighborsClassifier
from sklearn.tree import DecisionTreeClassifier
from sklearn.naive_bayes import GaussianNB, MultinomialNB, ComplementNB
from sklearn.neural_network import MLPClassifier
from sklearn.metrics import accuracy_score, hamming_loss, classification_report, precision_recall_fscore_support, jaccard_score
from sklearn.feature_extraction.text import CountVectorizer, TfidfVectorizer
import skmultilearn

### Cross-validation
from sklearn.model_selection import cross_val_score
from sklearn.model_selection import cross_validate
from sklearn.model_selection import cross_val_predict

### Split Dataset into Train and Testhttp://localhost:8888/notebooks/semantic%20esp%20output.ipynb
from sklearn.model_selection import train_test_split
# Feature engineering
from sklearn.feature_extraction.text import TfidfVectorizer

# Multi Label Pkgs
from skmultilearn.problem_transform import BinaryRelevance
from skmultilearn.problem_transform import ClassifierChain
from skmultilearn.problem_transform import LabelPowerset
from skmultilearn.adapt import MLKNN

## neattext to clean text noise
import neattext as nt
import neattext.functions as nfx

## NLTK
#pip install --user -U nltk
from nltk.corpus import stopwords
from nltk.corpus import stopwords
from nltk.stem import SnowballStemmer
from nltk.tokenize import ToktokTokenizer

# model saving and reading
import joblib
```

### prepare data

In [3]:

```
# Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SM\Handcoded\OT\semantic-hand-CD.csv",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

In [4]:

```
df.head()
```

Out[4]:

	text	CD
0	Cruzo la pasarela + No no que va Que me...	0
1	que quieres ser? una pija LA PIJA PERFECC...	0
2	Como hablar es gratis. Y así va el mundo. ...	0
3	Es muy Malalen este tema Pues si #OTGala12	0
4	La semifinal más igualada de la historia de O...	1

In [5]:

```
### data clean
import re

text = df.text

#preprocesamiento de los tweets
processed_text = []

#re.sub("cadena a buscar", "con la que se reemplaza", cadena_leida)
url = ('[https]?://(?:[a-zA-Z]|[0-9]|[$-@.&])+'
      '["\(\),]|(?:%[0-9a-fA-F][0-9a-fA-F])+')
hashtag = '#[\w\.-]+'
caracter_individual='\\s+[a-zA-Z]\\s+'
caracter_individual_inicio= r'\\s+[a-zA-Z]\\s+'
varios_espacios= r'\\s+'

for text in text:

    text_procesado = text
    text_procesado = re.sub(hashtag, '', text_procesado)
    text_procesado = re.sub(url, '', text_procesado)
    text_procesado = re.sub(caracter_individual, '', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, '', text_procesado)
    text_procesado = re.sub("rt | amp", '', text_procesado)
    text_procesado = re.sub(" q ", " que ", text_procesado)
    text_procesado = re.sub(" sr ", " señor ", text_procesado)
    text_procesado = re.sub(" x ", " por ", text_procesado)
    text_procesado = re.sub(" d ", " de ", text_procesado)
    text_procesado = re.sub(" xq ", " porque ", text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado) #agregar a la lista de tweets procesados
```

In [48]:

```
df.text = processed_text
```

In [6]:

```
text = df['text']
semantic = df['CD']
```

In [7]:

```
### Words vectorization
vectorizer = CountVectorizer()
x_vectors = vectorizer.fit_transform(text)
x_array = x_vectors.toarray()
```

## cross-validation

```
In [21]: #Logistic Regression
scores_log = cross_val_score(LogisticRegression(class_weight = 'balanced', solver='liblinear', multi_class='ovr'), x_vectors, semantic, cv=50)
averagescore_log = np.average(scores_log)
```

```
In [22]: #Support Vector Machine
from sklearn import svm
scores_svm = cross_val_score(svm.SVC(class_weight='balanced', kernel = 'linear'),x_vectors, semantic, cv=50)
averagescore_svm = np.average(scores_svm)
```

```
In [23]: #Decision Tree Classifier
from sklearn.tree import DecisionTreeClassifier
scores_dtc = cross_val_score(DecisionTreeClassifier(),x_vectors, semantic, cv=50)
averagescore_dtc = np.average(scores_dtc)
```

```
In [24]: #Complement Naive Bayes
scores_CNB = cross_val_score(ComplementNB()),x_array, semantic, cv=50)
averagescore_CNB = np.average(scores_CNB)
```

```
In [25]: #Random Forest Classifier
from sklearn.ensemble import RandomForestClassifier
scoresRFC = cross_val_score(RandomForestClassifier(n_estimators=60),x_vectors, semantic, cv=50)
averagescoreRFC = np.average(scoresRFC)
```

```
In [26]: # Mean Accuracy
print(averagescore_log)
print(averagescoreRFC)
print(averagescore_svm)
print(averagescore_dtc)
print(averagescore_CNB)
```

```
0.8566666666666667
0.853
0.8566666666666666
0.8376666666666667
0.7836666666666667
```

```
In [28]: #Selected the best algorithm: LogisticRegression
```

```
In [ ]: #RandomForestClassifier
clfRFC = RandomForestClassifier(n_estimators=60).fit(x_vectors, semantic)
clfRFC.predict(x_vectors)
```

```
In [29]: #### Logistic Regression

from sklearn.linear_model import LogisticRegression

clf_log = LogisticRegression(class_weight = 'balanced', solver='liblinear', multi_class='ovr').fit(x_vectors, semantic)

clf_log.predict(x_vectors)
```

```
out[29]: array([0, 0, 0, ..., 0, 1, 1], dtype=int64)
```

```
In [ ]: #Linear SVM
clf_svm = svm.SVC(kernel='linear', class_weight='balanced').fit(train_x, train_y.values.ravel())
#text = df['seg_list']
#semantic = df['EO']
```

```
In [ ]: #Decision Tree
clf_dec = DecisionTreeClassifier().fit(train_x, train_y.values.ravel())
```

```
In [ ]: #Naive Bayes
clf_mnb = MultinomialNB().fit(train_x, train_y.values.ravel())
clf_gnb = GaussianNB().fit(train_x, train_y.values.ravel())
clf_cnb = ComplementNB().fit(train_x, train_y.values.ravel())
```

```
In [30]: test_set = ['Lola tú brinda por tus amigos y por la mae que te parió que yo brindo por ti, reina #OTGalaFinal']
new_test = vectorizer.transform(test_set)
print(clf_log.predict(new_test))
print(clf_log.predict_proba(new_test))
```

```
[0]
[[0.95206371 0.04793629]]
```

```
In [31]: #### Save model
joblib.dump(clf_log, 'clf_ot_LOG.pkl')
joblib.dump(vectorizer, 'vectorizer_ot.pkl')
```

```
out[31]: ['vectorizer_ot.pkl']
```

use the trained model to predict the entire dataset

```
In [32]: ##### Load model
clf_sem_LOG = joblib.load('clf_ot_LOG.pkl')
vectorizer = joblib.load('vectorizer_ot.pkl')
```

```
In [54]: # Load Dataset
import csv
df_ot = pd.read_csv(r"C:\Research\PHD\disertationnotes\datas\SM\Handcoded\OT\OT-fulltext.csv",
sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [34]: df_ot
```

```
Out [34]:
```

	text
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020. cuarta fina...
1	#OT12 📌 Este es el repertorio de temas que...
2	#OTGala12 creo que no ha sido la mejor actuaci...
3	#OTGala12 me ha encantado Eva y Flavio. Se not...
4	#OTGala12 Vamos vamos vamos vamos Anaju!! FINA...
...	...
10299	#OTGala12 YO NO ME HE GASTADO DINERO EN SALV...
10300	#OTGala12 Que lástima por dios....Es que es...
10301	#OTGala12 mi top para la final: 1.Sam/Fla/M...
10302	#OTGala12 Maialen #OTchal12 #OT2020 #ga...
10303	#OTGala12 Es que de verdad. A mi me da pena ...

10304 rows x 1 columns

```
In [35]: #data clean
import re
text = df_ot.text

#preprocesamiento de los tweets
processed_text = []
url = ('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+]|
'["'()*~`=^!{};:~%[0-9a-fA-F][0-9a-fA-F]))+')
hashtag = '#(?:\w+)'
caracter_individual=r'\s+[a-zA-Z]\s+'
caracter_individual_inicio= r'\^[a-zA-Z]\s+'
varios_espacios= r'\s+'

for text in text:
    text_procesado = text
    text_procesado = re.sub(hashtag, '', text_procesado)
    text_procesado = re.sub(url, '', text_procesado)
    text_procesado = re.sub(caracter_individual, '', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, '', text_procesado)
    text_procesado = re.sub(" rt | amp ", '', text_procesado)
    text_procesado = re.sub(" q ", ' que ', text_procesado)
    text_procesado = re.sub(" sr ", ' señor ', text_procesado)
    text_procesado = re.sub(" x ", ' por ', text_procesado)
    text_procesado = re.sub(" d ", ' de ', text_procesado)
    text_procesado = re.sub(" xq ", ' porque ', text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado)
```

```
In [36]: df_ot.text = processed_text
text_ot = df_ot.text
text_ot
```

```
Out [36]:
```

0	!! ÚLTIMA HORA !! @SoyAnajuOT2020. cuarta fina...
1	📌 Este es el repertorio de temas que sonará...
2	creo que no ha sido la mejor actuación de Mai...
3	me ha encantado Eva Flavio. Se nota muchísimo...
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...
...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...
10300	Que lástima por dios....Es que esto es el pr...
10301	mi top para la final: 1.Sam/Fla/Mai (depende ...
10302	Maialen Blas Extremoduro
10303	Es que de verdad. mi me da pena pero esq Sam ...

Name: text, Length: 10304, dtype: object

```
In [37]: ### Words vectorization (vectorizer should be the one defined in training step)(svc model)
new_obs = vectorizer.transform(text_ot)
```

```
In [38]: new_obs.shape
```

```
Out[38]: (10304, 4379)
```

```
In [39]: clf_svm_LOG.predict(new_obs)
```

```
Out[39]: array([1, 0, 0, ..., 1, 0, 0], dtype=int64)
```

```
In [40]: ##### predict new observation and probability of each observation
clf_svm_LOG.predict(new_obs)
print(clf_svm_LOG.predict(new_obs))
print(clf_svm_LOG.predict_proba(new_obs))

[[1 0 0 ... 1 0 0]
 [2.90223001e-03 9.97097770e-01]
 [8.30596533e-01 1.63403467e-01]
 [9.56513090e-01 4.34063102e-02]
 ...
 [3.59584385e-04 9.99640416e-01]
 [7.45470642e-01 2.54529350e-01]
 [9.60756650e-01 3.92433435e-02]]
```

```
In [40]: # probability of each observation
proba = pd.DataFrame (clf_svm_LOG.predict_proba(new_obs))
proba
```

```
Out[40]:
```

	0	1
0	0.002902	0.997098
1	0.836597	0.163403
2	0.956514	0.043486
3	0.916819	0.083181
4	0.017340	0.982660
...	...	...
10299	0.351043	0.648957
10300	0.066495	0.933505
10301	0.000360	0.999640
10302	0.745471	0.254529
10303	0.960757	0.039243

10304 rows x 2 columns

```
In [50]: #observations to data frame
IS_LOG = (clf_svm_LOG.predict(new_obs))
df_ot["IS_LOG"] = IS_LOG
df_ot
```

```
Out[50]:
```

	text	IS_LOG
0	## ÚLTIMA HORA ## @SoyAnajuOT2020. cuarta fina...	1
1	¡¡ Este es el repertorio de temas que sonará...	0
2	creo que no ha sido la mejor actuación de Mai...	0
3	me ha encantado Eva Flavio. Se nota muchísimo...	0
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	1
...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	1
10300	Que lástima por dios....Es que esto es el pr...	1
10301	mi top para la final: 1.SanV-la/Mai (depende ...	1
10302	Maialen Blas Extremoduro	0
10303	Es que de verdad. mi me da pena pero esq Sam ...	0

10304 rows x 2 columns

```
In [51]: #embed probabilities to the data frame
frames = [df_ot, proba]

ot_svm = pd.concat(frames,axis=1,join='inner')
ot_svm
```

```
Out[51]:
```

	text	IS_LOG	0	1
0	## ÚLTIMA HORA ## @SoyAnajuOT2020. cuarta fina...	1	0.002902	0.997098
1	¡¡ Este es el repertorio de temas que sonará...	0	0.836597	0.163403
2	creo que no ha sido la mejor actuación de Mai...	0	0.956514	0.043486
3	me ha encantado Eva Flavio. Se nota muchísimo...	0	0.916819	0.083181
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	1	0.017340	0.982660
...	...	...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	1	0.351043	0.648957
10300	Que lástima por dios....Es que esto es el pr...	1	0.066495	0.933505
10301	mi top para la final: 1.SanV-la/Mai (depende ...	1	0.000360	0.999640
10302	Maialen Blas Extremoduro	0	0.745471	0.254529
10303	Es que de verdad. mi me da pena pero esq Sam ...	0	0.960757	0.039243

10304 rows x 4 columns

```
In [48]: #out put as an excel file
ot_svm.to_excel('ot_CD.xlsx')
```

## **Spanish Sentiment analysis**

## Sentiment ESP

```
In [1]: # Load EDA Pkgs
import pandas as pd
import numpy as np

# Load Data Viz Pkgs
import matplotlib.pyplot as plt
import seaborn as sns

# ML Pkgs
#!pip install scikit-multilearn
from sklearn.linear_model import LogisticRegression
from sklearn.neighbors import KNeighborsClassifier
from sklearn.tree import DecisionTreeClassifier
from sklearn.naive_bayes import ComplementNB, GaussianNB, MultinomialNB
from sklearn.metrics import accuracy_score, hamming_loss, classification_report
from sklearn.ensemble import RandomForestClassifier
from sklearn import svm

### Split Dataset into Train and Text
from sklearn.model_selection import train_test_split
# Feature engineering
from sklearn.feature_extraction.text import TfidfVectorizer

# Multi Label Pkgs
from skmultilearn.problem_transform import BinaryRelevance
from skmultilearn.problem_transform import ClassifierChain
from skmultilearn.problem_transform import LabelPowerset
from skmultilearn.adapt import MLkNN

### Cross-validation
from sklearn.model_selection import cross_val_score
from sklearn.model_selection import cross_validate
from sklearn.model_selection import cross_val_predict

## neattext to clean text noise
import neattext as nt
import neattext.functions as nfx

## NLTK
#!pip install --user -U nltk
from nltk.corpus import stopwords

##wordsvectorizer
from sklearn.feature_extraction.text import CountVectorizer

# model saving and reading
import joblib
```

```
In [2]: # Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SML\Handcoded\OT\sentiment-handcoded.csv",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [3]: df.head()
```

```
Out[3]:
```

	text	Sentiment
0	Cruzo la pasarela + No no que va Que me...	Positive
1	que quieres ser? una pija LA PIJA PERFEC...	Positive
2	Como hablar es gratis, Y así va el mundo. ...	Positive
3	Es muy Maialen este tema Pues sí #OTGala12	Neutral
4	La semifinal más igualada de la historia de O...	Neutral



```
In [2]: # Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SMI\Handcoded\OT\sentiment-handcoded.csv",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [3]: df.head()
```

```
Out[3]:
```

	text	Sentiment
0	Cruzo la pasarela + No no que va Que me...	Positive
1	que quieres ser? una pija LA PIJA PERFEC...	Positive
2	Como hablar es gratis, Y así va el mundo. ...	Positive
3	Es muy Maialen este tema Pues si #OTGala12	Neutral
4	La semifinal más igualada de la historia de O...	Neutral

```
In [4]: import re
### data clean
text = df.text #obtiene el texto del tweet

#preprocesamiento de los tweets
processed_text = []

#re.sub("cadena a buscar", "con la que se reemplaza", cadena_leida)
url = ('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+]|'
      '![*\(\),]|(?:%[0-9a-fA-F][0-9a-fA-F]))+')
hashtag = '#[\w\-\]+'
caracter_individual=r'\s+[a-zA-Z]\s+'
caracter_individual_inicio= r'^[a-zA-Z]\s+'
varios_espacios= r'\s+'

for text in text:
    text_procesado = text
    text_procesado = re.sub(hashtag, ' ', text_procesado)
    text_procesado = re.sub(url, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, ' ', text_procesado)
    text_procesado = re.sub(" rt | amp ", ' ', text_procesado)
    text_procesado = re.sub(" q ", ' que ', text_procesado)
    text_procesado = re.sub(" sr ", ' señor ', text_procesado)
    text_procesado = re.sub(" x ", ' por ', text_procesado)
    text_procesado = re.sub(" d ", ' de ', text_procesado)
    text_procesado = re.sub(" xq ", ' porque ', text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado)
```

```
In [5]: df.text = processed_text
```

```
In [6]: text = df.text
sentiment = df['Sentiment']
```

```
In [8]: ### Words vectorization

vectorizer = CountVectorizer()

x_vectors = vectorizer.fit_transform(text)

x_vectors

x_array = x_vectors.toarray()
```

## Finding the best algorithm with Cross-validation

```
In [9]: #SVM
scores_svm = cross_val_score(svm.SVC(class_weight='balanced', kernel = 'linear'),x_vectors, sentiment, cv=100)
averagescore_svm = np.average(scores_svm)
```

```
In [10]: #Complement Naive Bayes
scores_CNB = cross_val_score(ComplementNB(),x_array, sentiment, cv=100)
averagescore_CNB = np.average(scores_CNB)
```

```
In [11]: #Multinomial Naive Bayes
scores_MNB = cross_val_score(MultinomialNB(),x_array, sentiment, cv=100)
averagescore_MNB = np.average(scores_MNB)
```

```
In [12]: #Random Fores Classifier
scores_RFC = cross_val_score(RandomForestClassifier(n_estimators=60),x_vectors, sentiment, cv=100)
averagescore_RFC =np.average(scores_RFC)
```

```
In [13]: # Mean Accuracy
print(averagescore_svm)
print(averagescore_CNB)
print(averagescore_MNB)
print(averagescore_RFC)
```

```
0.5686666666666667
0.5923333333333334
0.5873333333333333
0.5613333333333334
```

```
In [14]: # Selected the best model: Complement Naive Bayes
clf_cnb = ComplementNB().fit(x_array, sentiment)
print(clf_cnb.predict(x_array))
```

```
['Positive' 'Positive' 'Positive' ... 'Neutral' 'Neutral' 'Neutral']
```

```
In [15]: test_set = ['roberto está tan hasta los cojones de los teléfonos como nosotros']
new_test = vectorizer.transform(test_set)
print(clf_cnb.predict(new_test))
print(clf_cnb.predict_proba(new_test))
```

```
['Negative']
[[0.66192032 0.22874792 0.10933176]]
```

```
In [16]: #### Save model
joblib.dump(clf_cnb, 'clf_sentiment_OT.pkl')
joblib.dump(vectorizer, 'vectorizer_sentiment_OT.pkl')
```

```
Out[16]: ['vectorizer_sentiment_OT.pkl']
```

## prediction

```
In [17]: ##### Load model
clf_sentiment = joblib.load('clf_sentiment_OT.pkl')

vectorizer = joblib.load('vectorizer_sentiment_OT.pkl')
```

```
In [18]: # Load Dataset
import csv
df_OT = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SML\Handcoded\OT\OT-fulltext.csv",
                    sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [19]: df_OT
```

```
Out[19]:
```

	text
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...
1	#OT12 📌 Este es el repertorio de temas que...
2	#OTGala12 creo que no ha sido la mejor actuaci...
3	#OTGala12 me ha encantado Eva y Flavio. Se not...
4	#OTGala12 Vamos vamos vamos vamos Anaju!! FINA...
...	...
10299	#OTGala12 YO NO ME HE GASTADO DINERO EN SALV...
10300	#OTGala12 Que lástima por dios....Es que es...
10301	#OTGala12 mi top para la final: 1.Sam/Fla/M...
10302	#OTgala12 Maialen #OTchat12 #OT2020 #ga...
10303	#OTGala12 Es que de verdad. A mi me da pena ...

10304 rows × 1 columns

```
In [20]: import re
### data clean
text = df_OT.text

#preprocesamiento de los tweets
processed_text = []

#re.sub("cadena a buscar", "con la que se reemplaza", cadena_leida)
url = ('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+]|'
      '[!*\\(\\),]|(?:%[0-9a-fA-F][0-9a-fA-F]))+')
#menciones = '@[\\w-]+'
hashtag = '#[\\w-]+'
#caracteres_especiales = r'\\W'
caracter_individual=r'\\s+[a-zA-Z]\\s+'
caracter_individual_inicio= r'^[a-zA-Z]\\s+'
varios_espacios= r'\\s+'
#prefijo_b = r'^b\\s+'
#numeros = '[0-9]+'

for text in text:

    text_procesado = text
    text_procesado = re.sub(hashtag, ' ', text_procesado)
    text_procesado = re.sub(url, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, ' ', text_procesado)
    text_procesado = re.sub(" rt | amp ", ' ', text_procesado)
    text_procesado = re.sub(" q ", ' que ', text_procesado)
    text_procesado = re.sub(" sr ", ' señor ', text_procesado)
    text_procesado = re.sub(" x ", ' por ', text_procesado)
    text_procesado = re.sub(" d ", ' de ', text_procesado)
    text_procesado = re.sub(" xq ", ' porque ', text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado)
```

```
In [21]: df_OT.text = processed_text
text_OT = df_OT.text
text_OT
```

```
Out[21]: 0      !! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...
1      📌 Este es el repertorio de temas que sonará...
2      creo que no ha sido la mejor actuación de Mai...
3      me ha encantado Eva Flavio. Se nota muchísimo...
4      Vamos vamos vamos vamos Anaju!! FINALISTA vam...
...
10299  YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...
10300  Que lástima por dios.....Es que esto es el pr...
10301  mi top para la final: 1.Sam/Fla/Mai (depende ...
10302  Maialen Blas Extremoduro
10303  Es que de verdad. mi me da pena pero esq Sam ...
Name: text, Length: 10304, dtype: object
```

```
In [22]: ### Words vectorization (vectorizer should be the one defined in training step)
new_obs = vectorizer.transform(text_OT)
```

```
In [23]: #### predict new observation
clf_sentiment.predict(new_obs)
print(clf_sentiment.predict(new_obs))
print(clf_sentiment.predict_proba(new_obs))

['Neutral' 'Neutral' 'Positive' ... 'Positive' 'Positive' 'Negative']
[[0.15230948 0.80833265 0.03935787]
 [0.23167141 0.69426129 0.07406729]
 [0.08565679 0.04961618 0.86472703]
 ...
 [0.12598472 0.37227968 0.5017356 ]
 [0.22441618 0.3139045 0.46167932]
 [0.87582747 0.04348536 0.08068717]]
```

```
In [24]: ## probability of each prediction
proba = pd.DataFrame (clf_sentiment.predict_proba(new_obs),
                      columns=['Negative', 'Neutral', 'Positive'])
proba
```

```
Out[24]:
```

	Negative	Neutral	Positive
0	0.152309	0.808333	0.039358
1	0.231671	0.694261	0.074067
2	0.085657	0.049616	0.864727
3	0.077810	0.019940	0.902250
4	0.007779	0.013088	0.979133
...	...	...	...
10299	0.110320	0.034915	0.854764
10300	0.979805	0.010023	0.010171
10301	0.125985	0.372280	0.501736
10302	0.224416	0.313904	0.461679
10303	0.875827	0.043485	0.080687



10304 rows x 3 columns

10303 0.875827 0.043485 0.080687

10304 rows × 3 columns

```
In [25]: ## create a dataframe to the predictions
sentiment = (clf_sentiment.predict(new_obs))
df_OT["sentiment"]=sentiment
df_OT
```



Out [25]:

	text	sentiment
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...	Neutral
1	  Este es el repertorio de temas que sonará...	Neutral
2	creo que no ha sido la mejor actuación de Mai...	Positive
3	me ha encantado Eva Flavio. Se nota muchísimo...	Positive
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	Positive
...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	Positive
10300	Que lástima por dios....Es que esto es el pr...	Negative
10301	mi top para la final: 1.Sam/Fla/Mai (depende ...	Positive
10302	Maialen Blas Extremoduro	Positive
10303	Es que de verdad. mi me da pena pero esq Sam ...	Negative

10304 rows × 2 columns

```
In [29]: ### embed probabilities to the data frame
frames = [df_OT, proba]
OT = pd.concat(frames,axis=1,join='inner')
OT
```

Out [29]:

	text	sentiment	Negative	Neutral	Positive
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...	Neutral	0.152309	0.808333	0.039358
1	  Este es el repertorio de temas que sonará...	Neutral	0.231671	0.694261	0.074067
2	creo que no ha sido la mejor actuación de Mai...	Positive	0.085657	0.049616	0.864727
3	me ha encantado Eva Flavio. Se nota muchísimo...	Positive	0.077810	0.019940	0.902250
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	Positive	0.007779	0.013088	0.979133
...	...	...	...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	Positive	0.110320	0.034915	0.854764
10300	Que lástima por dios....Es que esto es el pr...	Negative	0.979805	0.010023	0.010171
10301	mi top para la final: 1.Sam/Fla/Mai (depende ...	Positive	0.125985	0.372280	0.501736
10302	Maialen Blas Extremoduro	Positive	0.224416	0.313904	0.461679
10303	Es que de verdad. mi me da pena pero esq Sam ...	Negative	0.875827	0.043485	0.080687

10304 rows × 5 columns

```
In [30]: #export as an excel file
OT.to_excel('OT_sentiment.xlsx')
```

## **Chinese Semantic analysis**

## Semantic CN

In [2]:

```
# Load EDA Pkgs
import pandas as pd
import numpy as np

# Load Data Viz Pkgs
import matplotlib.pyplot as plt
import seaborn as sns

# ML Pkgs

#!pip install scikit-multilearn
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.tree import DecisionTreeClassifier
from sklearn.naive_bayes import GaussianNB, MultinomialNB, ComplementNB
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.neural_network import MLPClassifier
from sklearn.metrics import accuracy_score, hamming_loss, classification_report, precision_recall_fscore_support,
from sklearn.feature_extraction.text import CountVectorizer, TfidfVectorizer
import skmultilearn

# Feature engineering
from sklearn.feature_extraction.text import TfidfVectorizer

# Multi Label Pkgs
from skmultilearn.problem_transform import BinaryRelevance
from skmultilearn.problem_transform import ClassifierChain
from skmultilearn.problem_transform import LabelPowerset
from sklearn.naive_bayes import GaussianNB
from sklearn.naive_bayes import MultinomialNB
from sklearn.naive_bayes import ComplementNB
from skmultilearn.adapt import MLkNN

### Cross-validation
from sklearn.model_selection import cross_val_score
from sklearn.model_selection import cross_validate
from sklearn.model_selection import cross_val_predict

## neattext to clean text noise
import neattext as nt
import neattext.functions as nfx

## NLTK
#!pip install --user -U nltk
from nltk.corpus import stopwords
from nltk.corpus import stopwords
from nltk.stem import SnowballStemmer
from nltk.tokenize import ToktokTokenizer

# model saving and reading
import joblib

##Chinese text tokenization tool: Jieba
#!pip3 install jieba
import jieba
encoding="utf-8"
```

In [4]:

```
# Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SML\Handcoded\YWY\YWY-handcoded-CD.CSV",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```





In [14]:

```
df
```

Out[14]:

	text	CD	seg_list
0	我靠 王子异和张楹也太像了我都看不下去了看着他就像我老公在当导师榭哥说就像照镜子一样看着可说...	0	我靠 王子异和张楹也太像了我都看不下去了看着他就像我...
1	刘雨昕 魅力加成时间吉他弹唱暴击期待明天刘雨昕导师合作舞台新造型 刘雨昕长发 L芒果新娱的微...	0	刘雨昕 魅力加成时间 吉他 弹唱 暴击 期待 明天 刘雨昕 导师 合作 舞台 新造型...
2	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 超话这么多人 每次签到率我们家也是前五现...	1	黑人牙膏密泡小苏打 耀 青春有你 孔雪儿 闪耀 冒泡 超话 这么多 人 ...
3	青春福粒社 有花香有果粒 对你的爱怎么说都不腻! 花式告白 轻松示爱 花路之旅有我陪你! ?...	1	青春福粒社 有花香有果粒 对你的爱怎么说都不腻! 花式 ...
4	曾可妮 喝酸奶才是王道曾可妮也太美了吧 青春有你2-曾可妮	0	曾可妮 喝酸奶才是王道 曾可妮也太美了吧 青春有你2 - 曾可妮
...	...	...	...
942	合作舞台 It's OK 组的训练生们集合! 青春有你2-戴燕妮 青春有你2-林小宅 青春...	0	合作舞台 It's OK 组的训练生们集合! 青春有你 ...
943	早安少女 铛铛铛! 青春有你2-金子涵Aria 向青春制作人们发出了 一起看日出的邀请! 还没...	0	早安 少女 铛铛铛! 青春有你2 - 金子涵 Aria 向 青春 制作...
944	训练生告别联欢会造型请查收 青春制作人们 猜猜她们在联欢会上展示了哪些才艺吧 离别虽然伤感 ...	1	训练生 告别 联欢会 造型 请 查收 青春 制作 人们 猜猜 她们 在 联欢会 ...
945	九人组合 THE9官博 第6名已经诞生! 她是性感迷人的山城辣椒 也是舞台上控场力超强的爆炸...	1	九人组合 THE9 官博 第6名已经诞生! 她是性感迷人的 ...
946	随刻菌说晚安 全民看青你2随刻更精彩 不定义 不设限 不服输 努力过的女孩终将无限可能 掰...	1	随刻菌 说晚安 全民看青你2 随刻更精彩 不定义 不设限 ...

947 rows x 3 columns

In [15]:

```
text = df['seg_list']
semantic = df['CD']
```

In [16]:

```
text
```

Out[16]:

```
0    我 靠 王 子 异 和 张 楹 也 太 像 了 我 都 看 不 下 去 了 看 着 他 就 像 我 ...
1    刘 雨 昕 魅 力 加 成 时 间 吉 他 弹 唱 暴 击 期 待 明 天 刘 雨 昕 导 师 合 作 舞 台 新 造 型 ...
2    * 黑 人 牙 膏 密 泡 小 苏 打 耀 青 春 有 你 孔 雪 儿 闪 耀 冒 泡 超 话 这 么 多 人 ...
3    青 春 福 粒 社 有 花 香 有 果 粒 对 你 的 爱 怎 么 说 都 不 腻 ! 花 式 ...
4    曾 可 妮 喝 酸 奶 才 是 王 道 曾 可 妮 也 太 美 了 吧 青 春 有 你 2 - 曾 可 妮
    ...
942  合 作 舞 台 It ' s OK 组 的 训 练 生 们 集 合 ! 青 春 有 你 ...
943  早 安 少 女 铛 铛 铛 ! 青 春 有 你 2 - 金 子 涵 Aria 向 青 春 制 作 ...
944  训 练 生 告 别 联 欢 会 造 型 请 查 收 青 春 制 作 人 们 猜 猜 她 们 在 联 欢 会 ...
945  九 人 组 合 THE9 官 博 第 6 名 已 经 诞 生 ! 她 是 性 感 迷 人 的 ...
946  随 刻 菌 说 晚 安 全 民 看 青 你 2 随 刻 更 精 彩 不 定 义 不 设 限 ...
Name: seg_list, Length: 947, dtype: object
```

In [18]:

```
### Words vectorization
vectorizer = CountVectorizer()

x_vectors = vectorizer.fit_transform(text)

x_array = x_vectors.toarray()
```



## use the trained model to predict the entire data set

```
In [47]: ##### Load model
clf = joblib.load('clf_semantic_YWY_EO.pkl')
vectorizer = joblib.load('vectorizer_semantic_YWY.pkl')
```

```
In [49]: # Load Dataset
import csv
df_ywy = pd.read_csv(r"C:\Research\PHD\disertationnotes\datas\SML\Handcoded\YWY\YWY-fulltext.csv",
                    sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [50]: df_ywy
```

```
Out[50]:
```

	text
0	对不起, 我看成 蔡徐坤开水中舞"太吓人了哈哈哈哈哈
1	#青春有你# u1s1今晚的蔡徐坤竟然有点帅
2	@蔡徐坤 属于你给我们的专属【KUN式情歌】。慵懒的嗓音, 撩人的舞姿, 高级的编曲, 低吟的浅唱...
3	我靠 王子异和张榼也太像了我都看不下去了看着他就像我老公在当导师榼哥说就像照镜子一样看着可诡...
4	#青春有你# 2 ☹️ #黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡# 现在43元库存(990...
...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛, 跟前几次有什么区别? 有的有什么实力...
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? @爱奇艺青春有你 #青春有你#
3155	无语了无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...
3156	#多芬刘雨昕##青春有你2总决赛# #青春有你# 金主爸爸自爆 c位做票实锤 八点十一结...
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...

3158 rows × 1 columns

```
In [51]: text = df_ywy['text']
text
```

```
Out[51]: 0 对不起, 我看成 蔡徐坤开水中舞"太吓人了哈哈哈哈哈
1 #青春有你# u1s1今晚的蔡徐坤竟然有点帅
2 @蔡徐坤 属于你给我们的专属【KUN式情歌】。慵懒的嗓音, 撩人的舞姿, 高级的编曲, 低吟的浅唱...
3 我靠 王子异和张榼也太像了我都看不下去了看着他就像我老公在当导师榼哥说就像照镜子一样看着可诡...
4 #青春有你# 2 ☹️ #黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡# 现在43元库存(990...
...
3153 青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛, 跟前几次有什么区别? 有的有什么实力...
3154 我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? @爱奇艺青春有你 #青春有你#
3155 无语了无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...
3156 #多芬刘雨昕##青春有你2总决赛# #青春有你# 金主爸爸自爆 c位做票实锤 八点十一结...
3157 希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...
Name: text, Length: 3158, dtype: object
```

```
In [52]: import re
##### data clean
processed_text = []
hashtag1 = '#青春有你#'
hashtag2 = '#青春有你# 2'
varios_espacios = r'\s+'
zero_width_space = r'[\u200b \ue627 \u202c \u200d \ue627 \ue627]'
```

```
In [53]: for text in text :

    text_procesado = text
    text_procesado = re.sub(hashtag2, '', text_procesado)
    text_procesado = re.sub(hashtag1, '', text_procesado)
    text_procesado = re.sub(zero_width_space, '', text_procesado)
    text_procesado = re.sub(stopwords, '', text_procesado)
    text_procesado = re.sub(varios_espacios, '', text_procesado, flags=re.I)

    processed_text.append(text_procesado)
```

```
In [55]: df_ywy.text = processed_text
df_ywy
```

```
Out[55]:
```

	text
0	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈
1	u1s1今晚的蔡徐坤竟然有点帅
2	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 撩人的舞姿 高级的编曲 低吟的浅唱 ...
3	我靠 王子异和张櫜也太像了我都看不下去了看着他就像我老公在当导师樞哥说就像照镜子一样看着可说...
4	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 现在43元库存(99061开始 还剩50...
...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛 跟前几次有什么区别? 有的有什么实力...
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? 爱奇艺青春有你
3155	无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...
3156	多芬刘雨昕 青春有你2总决赛 金主爸爸自爆 c位做票实锤 八点十一结果就出来了 那我投票投...
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...

3158 rows x 1 columns

```
In [56]: ### Chinese segmentation
seg_list=[]
strs= df_ywy.text
for str in strs:
    seg = ' '.join(list(jieba.cut(str)))
    seg_list.append(seg)

df_ywy["seg_list"]=seg_list
```

```
In [57]: df_ywy
```

```
Out[57]:
```

	text	seg_list
0	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈
1	u1s1今晚的蔡徐坤竟然有点帅	u1s1今晚的 蔡徐坤竟然有点帅
2	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 撩人的舞姿 高级的编曲 低吟的浅唱 ...	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 ...
3	我靠 王子异和张櫜也太像了我都看不下去了看着他就像我老公在当导师樞哥说就像照镜子一样看着可说...	我靠 王子异 和 张櫜 也太像了我都看不下去了看着他就像我...
4	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 现在43元库存(99061开始 还剩50...	黑人牙膏密泡小苏打 耀青春有你孔雪儿 闪耀冒泡 现在43元库...
...	...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛 跟前几次有什么区别? 有的有什么实力...	青春有你2 决赛 有什么好看! 该给镜头的不给! 排名那么长干嘛 ...
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? 爱奇艺青春有你	我辛辛苦苦 投票? 我投空气呢? 这不是浪费粉丝感情吗??? ...
3155	无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...	无语了无语了无语了无语了无语了无语了无语了赵小棠? ...
3156	多芬刘雨昕 青春有你2总决赛 金主爸爸自爆 c位做票实锤 八点十一结果就出来了 那我投票投...	多芬 刘雨昕 青春有你2 总决赛 金主爸爸自爆 c位做票 实锤 ...
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...	希望 谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后 王承渲 ...

3158 rows x 2 columns

```
In [58]: text_ywy = df_ywy['seg_list']
text_ywy
```

```
Out[58]: 0      对不起  我看成  蔡徐坤  开水  中舞  太  吓人  了  哈哈  哈哈  哈哈  哈哈...
1              u1s1  今晚  的  蔡徐坤  竟然  有点  帅
2      蔡徐坤  属于  你  给  我们  的  专属  KUN  式  情歌  慵懒  的  嗓音  ...
3      我  靠  王  子  异  和  张  繼  也  太  像  了  我  都  看  不  下  去  了  看  着  他  就  像  我  ...
4      *  黑  人  牙  膏  密  泡  小  苏  打  耀  青  春  有  你  孔  雪  儿  闪  耀  冒  泡  现  在  4  3  元  库...
...
3153  青  春  有  你  2  总  决  赛  有  什  么  好  看  !  该  给  镜  头  的  不  给  !  排  名  那  么  长  干  嘛  ...
3154  我  辛  辛  苦  苦  投  票  ?  我  投  空  气  呢  ?  这  不  是  浪  费  粉  丝  感  情  吗  ?  ?  ?  ...
3155  无  语  了  无  语  了  无  语  了  无  语  了  无  语  了  无  语  了  无  语  了  无  语  了  赵  小  棠  ?  ...
3156  多  芬  刘  雨  昕  青  春  有  你  2  总  决  赛  金  主  爸  爸  自  爆  c  位  做  票  实  锤  ...
3157  希  望  谢  可  寅  金  子  涵  喻  言  刘  雨  昕  曾  可  妮  能  成  团  然  后  王  承  渲  ...
Name: seg_list, Length: 3158, dtype: object
```

```
In [60]: ### Words vectorization (vectorizer should be the one defined in training step)
new_obs = vectorizer.transform(text_ywy)
new_obs
```

```
Out[60]: <3158x4345 sparse matrix of type '<class 'numpy.int64'>'
with 39350 stored elements in Compressed Sparse Row format>
```

```
In [61]: #### predict new observation
clf.predict(new_obs)
print(clf.predict(new_obs))
print(clf.predict_proba(new_obs))
```

```
[0 0 0 ... 0 1 1]
[[1.      0.      ]
 [1.      0.      ]
 [1.      0.      ]
 ...
 [0.56666667 0.43333333]
 [0.1        0.9       ]
 [0.06666667 0.93333333]]
```

```
In [62]: #probability of each observation
proba = pd.DataFrame (clf.predict_proba(new_obs))
proba
```

```
Out[62]:
```

	0	1
0	1.000000	0.000000
1	1.000000	0.000000
2	1.000000	0.000000
3	1.000000	0.000000
4	0.600000	0.400000
...	...	...
3153	0.433333	0.566667
3154	0.500000	0.500000
3155	0.566667	0.433333
3156	0.100000	0.900000
3157	0.066667	0.933333

3158 rows x 2 columns

In [67]:

```
# Creat a data frame
CD = (clf.predict(new_obs))
df_ywy["CD"] = CD
df_ywy
```

Out [67]:

	text	seg_list	CD
0	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈	对不起 我看成 蔡徐坤 开水中舞 太吓人了哈哈哈哈哈	0
1	u1s1今晚的蔡徐坤竟然有点帅	u1s1今晚的 蔡徐坤 竟然有点帅	0
2	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 撩人的舞姿 高级的编曲 低吟的浅唱 ...	蔡徐坤 属于你 给 我们 的 专属 KUN 式 情歌 慵懒 的 嗓音 ...	0
3	我靠 王子异和张樵也太像了我都看不下去了看着他就像我老公在当导师樵哥说就像照镜子一样看着可说...	我靠 王子异 和 张樵 也 太 像 了 我 都 看 不 下 去 了 看 着 他 就 像 我 老 公 在 当 导 师 樵 哥 说 就 像 照 镜 子 一 样 看 着 可 说 ...	0
4	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 现在43元库存(99061开始 还剩50...	黑人牙膏密泡小苏打 耀 青春有你 孔雪儿 闪耀 冒泡 现 在 43 元 库 ...	0
...	...	...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛 跟前几次有什么区别? 有的有什么实力...	青春有你 2 决赛 有 什 么 好 看 ! 该 给 镜 头 的 不 给 ! 排 名 那 么 长 干 嘛 ...	1
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? 爱奇艺青春有你	我 辛 辛 苦 苦 投 票 ? 我 投 空 气 呢 ? 这 不 是 浪 费 粉 丝 感 情 吗 ? ? ? ...	0
3155	无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...	无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 赵 小 棠 ? ? ? 就 她 ? ? ? 就 这 ? ? ? 第 七 ? 是 孔 雪 ...	0
3156	多芬刘雨昕 青春有你2总决赛 金主爸爸自爆 c位做票实锤 八点十一结果就出来了 那我投票投...	多 芬 刘 雨 昕 青 春 有 你 2 总 决 赛 金 主 爸 爸 自 爆 c 位 做 票 实 锤 ...	1
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...	希 望 谢 可 寅 金 子 涵 喻 言 刘 雨 昕 曾 可 妮 能 成 团 然 后 王 承 渲 ...	1

3158 rows x 3 columns

In [68]:

```
#Embed probabilities to the data frame
frames = [df_ywy, proba]
ywy = pd.concat(frames,axis=1,join='inner')
ywy
```

Out [68]:

	text	seg_list	CD	0	1
0	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈	对不起 我看成 蔡徐坤 开水中舞 太吓人了哈哈哈哈哈	0	1.000000	0.000000
1	u1s1今晚的蔡徐坤竟然有点帅	u1s1今晚的 蔡徐坤 竟然有点帅	0	1.000000	0.000000
2	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 撩人的舞姿 高级的编曲 低吟的浅唱 ...	蔡徐坤 属于你 给 我们 的 专属 KUN 式 情歌 慵懒 的 嗓音 ...	0	1.000000	0.000000
3	我靠 王子异和张樵也太像了我都看不下去了看着他就像我老公在当导师樵哥说就像照镜子一样看着可说...	我靠 王子异 和 张樵 也 太 像 了 我 都 看 不 下 去 了 看 着 他 就 像 我 ...	0	1.000000	0.000000
4	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 现在43元库存(99061开始 还剩50...	黑人牙膏密泡小苏打 耀 青春有你 孔雪儿 闪耀 冒泡 现 在 43 元 库 ...	0	0.600000	0.400000
...	...	...	...	...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛 跟前几次有什么实力...	青春有你 2 决赛 有 什 么 好 看 ! 该 给 镜 头 的 不 给 ! 排 名 那 么 长 干 嘛 ...	1	0.433333	0.566667
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? 爱奇艺青春有你	我 辛 辛 苦 苦 投 票 ? 我 投 空 气 呢 ? 这 不 是 浪 费 粉 丝 感 情 吗 ? ? ? ...	0	0.500000	0.500000
3155	无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...	无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 无 语 了 赵 小 棠 ? ? ? 就 她 ? ? ? 就 这 ? ? ? 第 七 ? 是 孔 雪 ...	0	0.566667	0.433333
3156	多芬刘雨昕 青春有你2总决赛 金主爸爸自爆 c位做票实锤 八点十一结果就出来了 那我投票投...	多 芬 刘 雨 昕 青 春 有 你 2 总 决 赛 金 主 爸 爸 自 爆 c 位 做 票 实 锤 ...	1	0.100000	0.900000
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...	希 望 谢 可 寅 金 子 涵 喻 言 刘 雨 昕 曾 可 妮 能 成 团 然 后 王 承 渲 ...	1	0.066667	0.933333

3158 rows x 5 columns

In [69]:

```
#drop the seg_list
ywy = ywy.drop(['seg_list'], axis=1)
ywy
```

Out [69]:

	text	CD	0	1
0	对不起 我看成 蔡徐坤开水中舞 太吓人了哈哈哈哈哈	0	1.000000	0.000000
1	u1s1今晚的蔡徐坤竟然有点帅	0	1.000000	0.000000
2	蔡徐坤 属于你给我们的专属 KUN式情歌 慵懒的嗓音 撩人的舞姿 高级的编曲 低吟的浅唱 ...	0	1.000000	0.000000
3	我靠 王子异和张樵也太像了我都看不下去了看着他就像我老公在当导师樵哥说就像照镜子一样看着可说...	0	1.000000	0.000000
4	黑人牙膏密泡小苏打耀青春有你孔雪儿闪耀冒泡 现在43元库存(99061开始 还剩50...	0	0.600000	0.400000
...	...	...	...	...
3153	青春有你2决赛有什么好看! 该给镜头的不给! 排名那么长干嘛 跟前几次有什么实力...	1	0.433333	0.566667
3154	我辛辛苦苦投票? 我投空气呢? 这不是浪费粉丝感情吗??? 爱奇艺青春有你	0	0.500000	0.500000
3155	无语了无语了无语了无语了无语了无语了无语了赵小棠??? 就她??? 就这??? 第七? 是孔雪...	0	0.566667	0.433333
3156	多芬刘雨昕 青春有你2总决赛 金主爸爸自爆 c位做票实锤 八点十一结果就出来了 那我投票投...	1	0.100000	0.900000
3157	希望谢可寅 金子涵 喻言 刘雨昕 曾可妮 能成团 然后王承渲 刘令姿 许佳琪 徐紫茵 宋昕冉...	1	0.066667	0.933333

3158 rows x 4 columns

In [70]:

```
# output as an excel file
ywy.to_excel('ywy_EO.xlsx')
```

## **Chinese Sentiment analysis**

## Sentiment ESP

In [1]:

```
# Load EDA Pkgs
import pandas as pd
import numpy as np

# Load Data Viz Pkgs
import matplotlib.pyplot as plt
import seaborn as sns

# ML Pkgs
#!pip install scikit-multilearn
from sklearn.linear_model import LogisticRegression
from sklearn.neighbors import KNeighborsClassifier
from sklearn.tree import DecisionTreeClassifier
from sklearn.naive_bayes import ComplementNB, GaussianNB, MultinomialNB
from sklearn.metrics import accuracy_score, hamming_loss, classification_report
from sklearn.ensemble import RandomForestClassifier
from sklearn import svm

### Split Dataset into Train and Text
from sklearn.model_selection import train_test_split
# Feature engineering
from sklearn.feature_extraction.text import TfidfVectorizer

# Multi Label Pkgs
from skmultilearn.problem_transform import BinaryRelevance
from skmultilearn.problem_transform import ClassifierChain
from skmultilearn.problem_transform import LabelPowerset
from skmultilearn.adapt import MLkNN

### Cross-validation
from sklearn.model_selection import cross_val_score
from sklearn.model_selection import cross_validate
from sklearn.model_selection import cross_val_predict

## neattext to clean text noise
import neattext as nt
import neattext.functions as nfx

## NLTK
#!pip install --user -U nltk
from nltk.corpus import stopwords

##wordsvectorizer
from sklearn.feature_extraction.text import CountVectorizer

# model saving and reading
import joblib
```

In [2]:

```
# Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SML\Handcoded\OT\sentiment-handcoded.csv",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

In [3]:

```
df.head()
```

Out[3]:

	text	Sentiment
0	Cruzo la pasarela + No no que va Que me...	Positive
1	que quieres ser? una pija LA PIJA PERFEC...	Positive
2	Como hablar es gratis, Y así va el mundo. ...	Positive
3	Es muy Maialen este tema Pues sí #OTGala12	Neutral
4	La semifinal más igualada de la historia de O...	Neutral



```
In [2]: # Load Dataset
import csv
df = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SMI\Handcoded\OT\sentiment-handcoded.csv",
                sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [3]: df.head()
```

```
Out[3]:
```

	text	Sentiment
0	Cruzo la pasarela + No no que va Que me...	Positive
1	que quieres ser? una pija LA PIJA PERFEC...	Positive
2	Como hablar es gratis, Y así va el mundo. ...	Positive
3	Es muy Maialen este tema Pues si #OTGala12	Neutral
4	La semifinal más igualada de la historia de O...	Neutral

```
In [4]: import re
### data clean
text = df.text #obtiene el texto del tweet

#preprocesamiento de los tweets
processed_text = []

#re.sub("cadena a buscar", "con la que se reemplaza", cadena_leida)
url = ('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+]|'
      '!*\\(|)|(?:%[0-9a-fA-F][0-9a-fA-F]))+')
hashtag = '#[\\w\\-]+'
caracter_individual=r'\s+[a-zA-Z]\s+'
caracter_individual_inicio= r'^[a-zA-Z]\s+'
varios_espacios= r'\s+'

for text in text:
    text_procesado = text
    text_procesado = re.sub(hashtag, ' ', text_procesado)
    text_procesado = re.sub(url, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual, ' ', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, ' ', text_procesado)
    text_procesado = re.sub(" rt | amp ", ' ', text_procesado)
    text_procesado = re.sub(" q ", ' que ', text_procesado)
    text_procesado = re.sub(" sr ", ' señor ', text_procesado)
    text_procesado = re.sub(" x ", ' por ', text_procesado)
    text_procesado = re.sub(" d ", ' de ', text_procesado)
    text_procesado = re.sub(" xq ", ' porque ', text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado)
```

```
In [5]: df.text = processed_text
```

```
In [6]: text = df.text
sentiment = df['Sentiment']
```

```
In [8]: ### Words vectorization

vectorizer = CountVectorizer()

x_vectors = vectorizer.fit_transform(text)

x_vectors

x_array = x_vectors.toarray()
```

## Finding the best algorithm with Cross-validation

```
In [9]: #SVM
scores_svm = cross_val_score(svm.SVC(class_weight='balanced', kernel = 'linear'),x_vectors, sentiment, cv=100)
averagescore_svm = np.average(scores_svm)
```

```
In [10]: #Complement Naive Bayes
scores_CNB = cross_val_score(ComplementNB(),x_array, sentiment, cv=100)
averagescore_CNB = np.average(scores_CNB)
```

```
In [11]: #Multinomial Naive Bayes
scores_MNB = cross_val_score(MultinomialNB(),x_array, sentiment, cv=100)
averagescore_MNB = np.average(scores_MNB)
```

```
In [12]: #Random Fores Classifier
scores_RFC = cross_val_score(RandomForestClassifier(n_estimators=60),x_vectors, sentiment, cv=100)
averagescore_RFC =np.average(scores_RFC)
```

```
In [13]: # Mean Accuracy
print(averagescore_svm)
print(averagescore_CNB)
print(averagescore_MNB)
print(averagescore_RFC)
```

```
0.5686666666666667
0.5923333333333334
0.5873333333333333
0.5613333333333334
```

```
In [14]: # Selected the best model: Complement Naive Bayes
clf_cnb = ComplementNB().fit(x_array, sentiment)
print(clf_cnb.predict(x_array))
```

```
['Positive' 'Positive' 'Positive' ... 'Neutral' 'Neutral' 'Neutral']
```

```
In [15]: test_set = ['roberto está tan hasta los cojones de los teléfonos como nosotros']
new_test = vectorizer.transform(test_set)
print(clf_cnb.predict(new_test))
print(clf_cnb.predict_proba(new_test))
```

```
['Negative']
[[0.66192032 0.22874792 0.10933176]]
```

```
In [16]: ##### Save model
joblib.dump(clf_cnb, 'clf_sentiment_OT.pkl')
joblib.dump(vectorizer, 'vectorizer_sentiment_OT.pkl')
```

```
Out[16]: ['vectorizer_sentiment_OT.pkl']
```

## prediction

```
In [17]: ##### Load model
clf_sentiment = joblib.load('clf_sentiment_OT.pkl')

vectorizer = joblib.load('vectorizer_sentiment_OT.pkl')
```

```
In [18]: # Load Dataset
import csv
df_OT = pd.read_csv(r"C:\Research\PHD\dissertationnotes\datas\SML\Handcoded\OT\OT-fulltext.csv",
                    sep=';', encoding='UTF-8', error_bad_lines=False, quoting=csv.QUOTE_NONE)
```

```
In [19]: df_OT
```

```
Out[19]:
```

	text
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...
1	#OT12 📌 Este es el repertorio de temas que...
2	#OTGala12 creo que no ha sido la mejor actuaci...
3	#OTGala12 me ha encantado Eva y Flavio. Se not...
4	#OTGala12 Vamos vamos vamos vamos Anaju!! FINA...
...	...
10299	#OTGala12 YO NO ME HE GASTADO DINERO EN SALV...
10300	#OTGala12 Que lástima por dios....Es que es...
10301	#OTGala12 mi top para la final: 1.Sam/Fla/M...
10302	#OTgala12 Maialen #OTchat12 #OT2020 #ga...
10303	#OTGala12 Es que de verdad. A mi me da pena ...

10304 rows × 1 columns

```
In [20]: import re
### data clean
text = df_OT.text

#preprocesamiento de los tweets
processed_text = []

#re.sub("cadena a buscar", "con la que se reemplaza", cadena_leida)
url = ('http[s]?://(?:[a-zA-Z]|[0-9]|[$-_@.&+]|'
      '!*\\(\\)|(?:%[0-9a-fA-F][0-9a-fA-F]))+')
#menciones = '@[\\w-]+'
hashtag = '#[\\w-]+'
#caracteres_especiales = r'\\W'
caracter_individual=r'\\s+[a-zA-Z]\\s+'
caracter_individual_inicio= r'^[a-zA-Z]\\s+'
varios_espacios= r'\\s+'
#prefijo_b = r'^b\\s+'
#numeros = '[0-9]+'

for text in text:

    text_procesado = text
    text_procesado = re.sub(hashtag, '', text_procesado)
    text_procesado = re.sub(url, '', text_procesado)
    text_procesado = re.sub(caracter_individual, '', text_procesado)
    text_procesado = re.sub(caracter_individual_inicio, '', text_procesado)
    text_procesado = re.sub(" rt | amp ", '', text_procesado)
    text_procesado = re.sub(" q ", ' que ', text_procesado)
    text_procesado = re.sub(" sr ", ' señor ', text_procesado)
    text_procesado = re.sub(" x ", ' por ', text_procesado)
    text_procesado = re.sub(" d ", ' de ', text_procesado)
    text_procesado = re.sub(" xq ", ' porque ', text_procesado)
    text_procesado = re.sub(varios_espacios, ' ', text_procesado, flags=re.I)
    processed_text.append(text_procesado)
```

```
In [21]: df_OT.text = processed_text
text_OT = df_OT.text
text_OT
```

```
Out[21]: 0      !! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...
1      🎧 🎧 Este es el repertorio de temas que sonará...
2      creo que no ha sido la mejor actuación de Mai...
3      me ha encantado Eva Flavio. Se nota muchísimo...
4      Vamos vamos vamos vamos Anaju!! FINALISTA vam...
      ...
10299  YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...
10300  Que lástima por dios....Es que esto es el pr...
10301  mi top para la final: 1.Sam/Fla/Mai (depende ...
10302  Maialen Blas Extremoduro
10303  Es que de verdad. mi me da pena pero esq Sam ...
Name: text, Length: 10304, dtype: object
```

```
In [22]: ### Words vectorization (vectorizer should be the one defined in training step)

new_obs = vectorizer.transform(text_OT)
```

```
In [23]: #### predict new observation
clf_sentiment.predict(new_obs)
print(clf_sentiment.predict(new_obs))
print(clf_sentiment.predict_proba(new_obs))

['Neutral' 'Neutral' 'Positive' ... 'Positive' 'Positive' 'Negative']
[[0.15230948 0.80833265 0.03935787]
 [0.23167141 0.69426129 0.07406729]
 [0.08565679 0.04961618 0.86472703]
 ...
 [0.12598472 0.37227968 0.5017356 ]
 [0.22441618 0.3139045 0.46167932]
 [0.87582747 0.04348536 0.08068717]]
```

```
In [24]: ## probability of each prediction
proba = pd.DataFrame (clf_sentiment.predict_proba(new_obs),
                      columns=['Negative','Neutral','Positive'])
proba
```

```
Out[24]:
```

	Negative	Neutral	Positive
0	0.152309	0.808333	0.039358
1	0.231671	0.694261	0.074067
2	0.085657	0.049616	0.864727
3	0.077810	0.019940	0.902250
4	0.007779	0.013088	0.979133
...	...	...	...
10299	0.110320	0.034915	0.854764
10300	0.979805	0.010023	0.010171
10301	0.125985	0.372280	0.501736
10302	0.224416	0.313904	0.461679
10303	0.875827	0.043485	0.080687



10304 rows x 3 columns

10303 0.875827 0.043485 0.080687

10304 rows × 3 columns

```
In [25]: ## create a dataframe to the predictions
sentiment = (clf_sentiment.predict(new_obs))
df_OT["sentiment"]=sentiment
df_OT
```



```
Out[25]:
```

	text	sentiment
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...	Neutral
1	  Este es el repertorio de temas que sonará...	Neutral
2	creo que no ha sido la mejor actuación de Mai...	Positive
3	me ha encantado Eva Flavio. Se nota muchísimo...	Positive
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	Positive
...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	Positive
10300	Que lástima por dios....Es que esto es el pr...	Negative
10301	mi top para la final: 1.Sam/Fla/Mai (depende ...	Positive
10302	Maialen Blas Extremoduro	Positive
10303	Es que de verdad. mi me da pena pero esq Sam ...	Negative

10304 rows × 2 columns

```
In [29]: ### embed probabilities to the data frame
frames = [df_OT, proba]
OT = pd.concat(frames,axis=1,join='inner')
OT
```

```
Out[29]:
```

	text	sentiment	Negative	Neutral	Positive
0	!! ÚLTIMA HORA !! @SoyAnajuOT2020, cuarta fina...	Neutral	0.152309	0.808333	0.039358
1	  Este es el repertorio de temas que sonará...	Neutral	0.231671	0.694261	0.074067
2	creo que no ha sido la mejor actuación de Mai...	Positive	0.085657	0.049616	0.864727
3	me ha encantado Eva Flavio. Se nota muchísimo...	Positive	0.077810	0.019940	0.902250
4	Vamos vamos vamos vamos Anaju!! FINALISTA vam...	Positive	0.007779	0.013088	0.979133
...	...	...	...	...	...
10299	YO NO ME HE GASTADO DINERO EN SALVAR MAI PARA...	Positive	0.110320	0.034915	0.854764
10300	Que lástima por dios....Es que esto es el pr...	Negative	0.979805	0.010023	0.010171
10301	mi top para la final: 1.Sam/Fla/Mai (depende ...	Positive	0.125985	0.372280	0.501736
10302	Maialen Blas Extremoduro	Positive	0.224416	0.313904	0.461679
10303	Es que de verdad. mi me da pena pero esq Sam ...	Negative	0.875827	0.043485	0.080687

10304 rows × 5 columns

```
In [30]: #export as an excel file
OT.to_excel('OT_sentiment.xlsx')
```