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Triple play, OTT TV, and the Chinese logic of “select commercialization”

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Abstract
This article unravels the evolution of the Chinese OTT TV and triple-network convergence in the larger context of global media and communication policy. The balancing act between market innovation and content gatekeeping has led State Administration of Radio, Film and Television, the regulator of the broadcast sector, to subjugate the relevant players of OTT TV and triple play to “select commercialization,” a logic that inevitably led to convoluted policy configurations. The authors pursue a market power analysis that lays bare the competing and/or collaborative relationships between multiple actors in China’s online TV value chain, that is, cable broadcasters, telecom operators, Internet companies, OTT licensees, and smart TV makers. The article ends with a proposition that the future of the Chinese online TV industry is increasingly organized as an ecosystem economy.

Keywords
Triple Play, convergence, OTT TV, select commercialization, broadcast sector, telecoms sector, smart TV manufacturer, global media and communication policy, ecosystem economy, China

There has been much discussion in the new media scholarship about the role of media policy in regulating digital TV activities (Galperin, 2004; Griffiths, 2003; Jenner, 2018; Lotz, 2018). Although conventional wisdom emphasizes the noninterventionist role of the neo-liberal state, the...
fact remains that national governments, whether in the United States or the United Kingdom, continue to play a crucial role in shaping market dynamics not only in the broadcasting industry but also in the burgeoning subsector of online TV. The case of digital TV (DTV) reinforces the argument that despite the internationalization of media markets, the buildup of global digital networks, and the expanding authorities of intergovernmental bodies, the nation-states “retain key instruments to direct the evolution of their media sector” (Galperin, 2004, p. 7). This article tracks the evolution of network convergence and OTT TV in a different political system—China—where policymakers have been engaged in catching up with the trends of global media and communication policy.

To explicate the particularities of the Chinese experiment with network convergence is not an exercise that would lead us to a parallel universe where differences prevail. A closer look at China would unveil more policy connections with Western pathways than we might expect. For example, like their Western counterparts, Chinese policymakers saw developments like DTV as part of a strategic response to the challenges of globalization. Likewise, the Chinese saw the convergence of the three networks—broadcast, telecoms, and the Internet—as a necessary step toward opening up the TV market for less fettered competition. China also faces the challenge of regulatory asymmetry in the wake of the triple-network convergence. Similarly, just as the information technology (IT) sector in the West is relatively free of disciplinary blows, Chinese Internet companies also face fewer regulatory hindrance and lower entry barriers compared to the broadcast and telecoms sectors. Finally, the digital switchover from analog, a move seen as an action of “coercive” government, was achieved by legislature both in China and the liberal West. This and other examples illustrate that while we steadfastly condemn state interventionism characteristic of Chinese-style governance, we should not neglect the regulatory measures taken by Western nation-states in driving their media reforms. Washington DC and London regulate as much as Beijing. They just differ in what and how they regulate. The proposition of the retreat of the nation-state is only partially valid, so is the metaphor of the Chinese cyberspace as a “giant cage.” The Chinese Internet, “driven by a multitude of domestic and international forces, has been converging with the dominant global structure,” as communication scholar Yu Hong avows (Hong, 2017, p. 141). Our habitual subscription to the China-West, or the illiberal versus liberal polarity, like many other binary pairs, only prevents us from examining where the Chinese and Western policy trajectories converge. Only through the lens of such policy convergence can we better identify where policy makings in those two political systems diverge and how they can be accounted for from the standpoint of national interests and national media culture.

Indeed, TV is bound to a national territory and is the site where “the national” is constructed (Jenner, 2018, p. 202). Despite the trending globalization talk, TV markets remain bound by regulatory, political, cultural, and historical factors that are highly national (Johnson, 2019, p. 92), an observation that defies hasty proclamations that “cross-cultural differences have diminished” (Katz, 2005, p. 2) simply because “technologies ignored national boundaries” (Mansell & Raboy, 2011, p. 3). Difference, we emphasize, is a given even though all countries are heading in the same direction of deregulating media markets. Truly as institutional economists have emphasized, markets are embedded in socio-political institutions that create, shape, and constrain market performance (Polanyi, 1944).

This article treats the Chinese journey of media convergence and the birth of OTT TV in the larger context of global media and communication policy, and in so doing, we unravel the relationship between media markets, political ideology, and national priorities. First, a quick
Definition of keywords. OTT TV, a symptom of digital disruption, arose globally with the success of Netflix and similar services that deliver web-based videos by using Internet protocols without a proprietary set-top box. “Triple play,” or the convergence of three networks, refers to subscription packages that bundle together television, telephone, and broadband services, a scenario that requires a technologically enabled network that can transport all the three basic communication flows (audio, video, and data) through the same pipe (Hens & Caballero, 2008, p. 17). Under the new structure, TV operators supply high-speed data and telephony services; telecom operators provide video and data; and the Internet delivers voice, video, data, and telephony services. A single vendor and one consolidated bill summarize the immediate benefits for consumers in the converged era. While OTT TV is a wild horse galloping in a relatively unbridled terrain, network convergence is legislature-driven and prevalent in all countries, liberal or not. The US Telecommunications Act (1996) and the UK Telecommunications Act (2003) lifted many old restrictions on cross-media ownership by allowing broadcasters and telecom companies to enter into each other’s service domain, prompting Hernan Galperin to state that “the role of government in the new broadcast regime seems no less intrusive than in its analog precedent” (Galperin, 2004, p. 8). Can we assume that China, which is eager to be reckoned with as a global player, has also embraced the trend of media convergence and delivered triple-play services? Has China also adopted the main principles of global media and communication policy whose current mantra is “liberalization” and “competition”?

The answer is a nuanced “yes.” Like the United States and the United Kingdom, China has made a bundle of regulatory moves designed to remove restrictions on cross-sector ownership. It rolled out policies specifically aimed at intensifying competition within its technologically stagnant TV industry. Statutory barriers that had previously blocked telecoms conglomerates from entering into media services were removed. Indeed, convergence is a global trend difficult to ward off for a country whose desire to catch up with international norms is as intense as its regulatory fever. All this illustrates that regulators are by no means absent in neo-liberal regimes, neither have authoritarian states turned oblivious to the ideology of free-market competition. Too often, the familiar Western talk of deregulation hides in view the complex, crisscross interactions between state policies, market forces, and technological impetus, while a disproportional focus on the surveilling government in China obscures its painstaking effort to carve out a space for market liberalization.

But let us make no mistake: What the Chinese are pursuing is by no means a free market approach understood in Western terms. This article introduces China’s approach of “select commercialization” by shedding light on how Chinese policymakers define “safe content,” which holds the key to our understanding of the ongoing power struggle between China’s two regulatory bodies—SARFT (State Administration of Radio, Film and Television) that governs the broadcast sector and MIIT (Ministry of Industry and Information Technology) that governs the telecoms and Internet sectors.2 We will lay bare where structural power lies in China’s media market and provide a market power analysis to untangle the winding pathways that led China to embrace global media policy agendas without sacrificing its adherence to socialist ideology. Disruptive technology may be a strong force of change, but its impact is always already mediated by institutional relationships and entrenched power structures that have been in place for decades (Évens & Donders, 2018, p. 245). We will identify who the players are in China’s new broadcast regime, examine how they contest and collaborate with each other, and analyze their sweet spots and pain points in the twin context of the triple-network convergence and OTT television.
“Select commercialization” and the pursuit of safe content

To grasp how Beijing navigates between a wholesale liberalization and its default impulse to regulate, we only need to turn to the reform of the Chinese TV industry triggered by China’s accession to the World Trade Organization (WTO) in 2001. Although China’s membership in the WTO binds itself to liberalize key industrial sectors, media included, the Chinese have not followed the same path that has led democratic countries to “market liberalization and competition”—the two key instruments that steer global media and communication policy (Mansell & Raboy, 2011, p. 3). Instead, Beijing concocted its own liberalization formula by splitting content into three categories—that which can be made commercial, that which cannot, and that which lies in between. That is to say, regulators of post-WTO China give preferential treatment to politically non-sensitive topics—the “safe content” so to speak—such as finance and economy, science and technology, leisure and lifestyle, or any ideologically neutral mass-market fare such as game shows, talk shows, and sports. Content regulators open up only select content for capital entry, with certain areas officially designated as “commercializable,” while others are considered threshold categories to be judged on a case-by-case basis. In a nutshell, China’s internal debate on media commodification focuses less on “how to commodify” (a favorite question for Western media analysts of China) than “which subsectors to commercialize” (Wang, 2008, p. 251). This point is too often missed by Western media commentators who celebrate foreign broadcasters’ inroads into China as a sign that the communist country was forced open by the WTO agreement. Not only is such a celebration premature, it simplifies the complex media strategies Beijing resorted to in co-opting foreign capital to its own ends.

Decree no. 82—the separation of station (content) from network (pipelines)

Commercializable, non-monopoly cultural industry subsectors, and certain content service sectors are considered less sensitive to cultural and information security concerns. These include performance, tourism, industrial and cultural exhibitions, technical production and distribution of audio-visual products, sports and the entertainment industry, and higher education and professional education. These sectors and subsectors that are considered irrelevant to content security are open to domestic and foreign investment. They are also allowed to spin off as capital-driven subsidiaries seeking profit and private investment at full speed. Indeed, differential commercialization lies at the very heart of the restructuring of Chinese media.

Communication scholars Yuezhi Zhao and Ruoyun Bai have treated the phenomenon of differential regulation on various occasions that call for nuanced analyses of the neo-liberal calculations of Chinese policymakers. They both provide detailed descriptions of the ongoing media restructuring that opens up China’s media industry to both domestic and outside capital (Bai, 2005; Y. Zhao, 2008). Among the policies for media commercialization that Bai (2005) highlights is Document No. 10—a 2005 proposal made by the SARFT that “urges media groups to build a wall separating business sections from propaganda and public-interest undertakings, so that business sections can be run as pure commercial entities and opened up to relatively free capital investment”. This internal differentiation of media operations into editorial, public-interest, and business-interest sections has led to a phenomenon of “partial incorporatization” (Y. Zhao, 2008, pp. 111–114). Both authors have reviewed two landmark policy documents that set up parameters for media liberalization— No. 10 (2005) and No. 17 (2001)—with the former delineating the scope of operations for “non-public capital” (Bai, 2005, p. 207) and the latter, setting forth principles for building up cross-medium...
and cross-regional media conglomerates. But while these two policy documents carry significance to the discussion of China’s incremental media reform, the *seeding* of the principle of “selective commercialization” can be traced back to an earlier policy—Decree No. 82 released by the SARFT in 1999.

Most relevant to our discussion are segments of the media sector that could be commercialized, but are part of the monopoly that the Chinese state wants to retain—that is, radio and TV broadcasting of news and any other content it considers politically risky or off-limits. This hairsplitting logic of distinguishing “safe” from “risky” content was crystallized in the 1999 landmark directive—Decree No. 82 (“Administrative Guidelines for Strengthening the Construction of Wired Transmissions for Radio and TV”). The directive dictated the separation of TV station (content) from cable network (pipelines) and hence, the splitting-up of production and broadcasting. Capital is allowed to enter what is considered the “infrastructural subsectors,” such as service-related value chains in the media industry (i.e. terrestrial, cable, and satellite transmissions, management of printing and publishing, retail businesses, information delivery, and distribution networks)—subunits that have little to do with programming and are thus deemed “safe” subsectors open for complete commercialization.

Splitting hairs even further, the state designates co-existing forbidden areas and free zones *within* each sector. When a conflict of interest (between the state and the market) arises, content regulator SARFT is called upon to redefine what is and is not off-limits. The regulator’s constant redrawing of the boundaries between what *can*, *cannot*, and *might be commercialized* across sectors and within each subsector has baffled many Western investors. The Chinese appear to abide by no rules, they would complain. Yet, the Communist Party’s central policy rationale has hardly swerved, regardless of the micro-instances of occasional relaxation and occasional retrenchment.

Directive No. 82 sanctioned the separation of station and network—a theoretical split of TV production units from broadcasting units. Since the historic separation, local cable operators have been flourishing. Networks were freed up to expand value-added services such as pay TV, video on demand (VOD), distance learning, broadband access, and Internet data services, while continuing with linear TV transmissions. All those early developments have expanded and scaled up broadcast network, clearing a significant bottleneck for China’s triple-play policymaking.

As new business opportunities for cable operators proliferate, China’s move toward DTV has also come to fruition. Guangdong, Fujian, Shanxi, Hunan, Shaanxi, and several other provinces, together with Beijing and Shanghai municipalities, began switching TV transmissions from analog to digital in 2005 (“Nation Tunes in to Digital TV Era,” 2005). Convergence and digitalization were two logical scenarios awaiting the cable network once it broke loose from TV stations. The 1999 decree opened cable network operators to diverse measures of liberalization and market stewardship in preparation for China’s accession to the WTO.

It is important to note that China’s homegrown media groups are, by state definition, public institutions managed as partially fulfilled business-oriented enterprises. We resort to the descriptor “partially fulfilled” to point to a deep-seated contradiction in the Chinese media system; while the “public interest assets” within each media group remain properties of the state and are thus intensely monitored and noncommercializable, all media groups are pressured to commodify certain “operational assets” (i.e. pipelines), which are separable from the noncommercializable “public interest assets.” Chinese media groups and institutions are, therefore, two-faced—with one face looking up to the state for supervision and another facing the market and capital. Of course, the “supervisory role” of SARFT goes far beyond the inculcation of governmental propaganda and the ministration...
of market principles. As a media manager, SARFT is also compelled to follow the public service logic of “serving the people,” including the disfranchised, to ensure media pluralism and diversity as well as local content provision. Regardless of the mixed attributes of Chinese media, the ongoing media reform is caught in the dilemma of its own making—state-owned media institutions cannot be fully transformed into full-fledged corporations and the half-measures of liberalization has led to a lack of incentives for them to innovate. The double personae of media are unique to China, which earned them the epithet of “unities of contradictions” (Hong, 2017, p. 106). It is also evident that the “party line is not a straight line, but an ever-changing and hard-to-grasp curve” (Xiao, 2003).

Such a curve-ball policy line, or regulatory differentiation, is given a new treatment in Zoning China (Li, 2019), which examines the differential regulation of television and online video sectors. Author Luzhou Li argues that the practice of cultural zoning constitutes the state’s strategic control of media environment insofar as zoning “configures the cultural realm into multiple zones in relation to the market” (Li, 2019, p. 3). Yet, regardless of how we name such control mechanisms—safe-content regulation or differential zoning—it is clear that China has moved steadfastly toward a selective commercialization and that its convergence with global digital capitalism is a state-engineered project (Bai, 2005; Y. Zhao, 2008; E. J. Zhao, 2017). Neither the label of regulation nor that of commercialization tells the full story of Chinese media policies. The anxieties of China’s policymakers are justifiable for as long as they are obliged to tread gingerly between promoting socialist values and moving in lockstep with the global neo-liberal policy of convergence.

**China’s triple-play policy and its zigzag course**

“Select commercialization” is not just a symptom of the Chinese strategy of taking advantage of the free-market credo without being ruled by it. It is a brand of commercialization born out of China’s unique institutional culture and structure and its ongoing struggle to go global without losing the Chinese identity. More significantly, “select commercialization” has served as a guiding principle plotting the bigger drama that has been slowly unfolding to shape China’s triple-play and OTT markets. And it is this same principle that determines who would emerge as a winner in the decade-long contestation between the SARFT and MIIT—the two competing regulators who are vying for the privilege of designing a new policy architecture that works in their favor. Precisely because safe content is indispensable to information security and thus a crucial ingredient to the maintenance of the CCP christened “harmonious society,” the regulatory body designated the content police has gained the upper hand of its rival whose jurisdiction is confined to ideologically neutral pipelines. The winner is SARFT.

We are now moving into main inquiry: How did the Chinese draw the blueprint for triple-play policy?

Responding to the rapid evolution of information technology from the mid to the late 1990s, many developed countries have pushed for converged communication services that can be achieved through the merging of telecommunications and radio and TV industries to better serve customers. Almost around the same time, scholars and industry practitioners in China began advocating for the integration of cable network, telecoms network, and the Internet. However, the official Chinese triple-play policy did not crystallize until 2010. The journey started in 1998 when the concept of network integration was first brought to light. Cable companies began experimenting with broadband services, sending the telecoms industry into a frenzy. The objections of the latter prompted
the rollout of Decree 82 that forbade telecoms and cable companies from crossing over into each other's domain. The time was 1999 and it would take another 9 years for the ban to loosen up. In 2008, Development and Reform Commission published Decree No. 1 with the goal of nudging telecoms and cable companies to consider integration; in 2009, the state tried to bring authorities of the two sectors to the negotiation table but consensus was slow coming; in 2010, an administrative order from a determined State Council led by former premier Wen Jiabao broke the ice by demanding the start of regional trials of network convergence (Song & Ren, 2010, p. 9). Eleven years have passed before the convergence agenda finally clicked with the relevant parties involved.

Telecom operators were more than ready for convergence as their networks were constructed at a much quicker pace than cable networks. Indeed, the reform of the telecom industry, which was kicked off in the late 1990s even before China’s accession to the WTO, introduced modern corporate management that greatly improved its market competitiveness. In contrast, the broadcast or media industry is heavily constrained by its inherent conflicting identity of a noncommercializable public institution co-existing with commercialized units embedded within it. The split persona of the broadcast industry basically ruled out wholesale marketization. It is an utterly inefficient sector with a little incentive for genuine reform. To make things more complicated, China’s 31 provinces went about their separate ways of building provincial cable networks. With convergence on the horizon, the SARFT was facing the daunting challenge of consolidating fragmented provincial networks. All those obstacles combined have contributed to the slow buildup of cable TV networks in comparison to the quick development of telecom networks. Therefore, in the initial discussion about a triple-play master plan, the telecom industry argued for the construction of a single comprehensive network, with the implication that it was not necessary for the broadcast industry to replicate the effort of building its own network. This proposal inevitably hurt the interest of broadcasters and was subsequently rejected by the SARFT.

However, the triple-network convergence is undeniably the future of informationalization and China saw its implementation as an opportunity to create a three-in-one pillar industry that could attract the investment of more than 600 billion yuan, create 200,000 new jobs, contribute a 0.8% surge to China’s gross domestic product (GDP) (Bao, 2010, p. 24), and save for each household 400–500 yuan annually (Li et al., 2010, p. 36). Those economic incentives were powerful enough to prompt the central government to take action. In 2010, as mentioned earlier, the State Council intervened in the protracted war between the SARFT and MIIT, forcing them to accept a new bill “The Overall Implementation Plan for Promoting the Integration of Three Networks.” The new plan broke the deadlock by dividing the triple-play policy into a pilot phrase from 2010 to 2012 and a promotion phase from 2013 to 2015, resolutely flinging open the door for broadcast and telecom services to cross into each other’s territory (State Council, 2010).

Rather than getting into the nitty-gritties of the bumpy process of the Chinese journey of convergence, we will turn to the strengths and weaknesses of each party involved. The user data of 2019 and those of 2008 are juxtaposed to tease out the gratifying outcome of the Chinese convergence project.

### Telecom operators versus cable operators: a scoreboard

The table provides us an entry point of evaluating the comparative advantages and disadvantages of each sector in implementing network convergence. Let us start with the telecoms. It is a monopoly sector enjoying full marketization capabilities and possessing a “high quality” and “highly
Table 1. Comparison of the current status, characteristics, and problems of the three networks (Wei, 2010, p. 2).

|                        | Telecom network          | Cable network          | Internet          |
|------------------------|--------------------------|------------------------|-------------------|
| **Current status (2008)** |                          |                        |                   |
| Worldwide              | 5.4 billion users and 400 million broadband subscribers | 500 million users     | 1.54 billion users |
| China                  | 980 million users and 83.43 million broadband subscribers | 164 million users and 50 million digital subscribers | 298 million users |
| **Current status (2019)** |                          |                        |                   |
| Worldwide              | 8.3 billion mobile subscriptions\(^a\) and 931 million fixed telephone line subscriptions\(^b\) in 2019 | Pay TV subscriptions exceed 990 million in 2019\(^d\) | At the end of 2019, 4.1 billion people were using the Internet.\(^e\) |
| China                  | In 2019, there were 1.79 billion telephone subscribers and 449 million broadband subscribers.\(^f\) | There were 212 million cable TV subscribers, including 198 million digital subscribers in 2019.\(^g\) | The number of Chinese Internet users reached 903.59 million in 2019.\(^h\) |
| Network                | High quality, high cost, high reliability, high complexity | Low quality, low cost, low reliability, low complexity | Low quality, low cost, low reliability, medium complexity |
| Terminal               | Low intelligence         | Medium intelligence    | High intelligence |
| Operation              | Clear property rights and extensive experience in operating large networks | Complex property rights and extensive experience in operating broadcast networks | Clear property rights and extensive experience in operating business applications |
| Government regulation  | Medium-level regulation  | Strict                 | Minimum           |
| Degree of marketization| Market-oriented, oligopolistic | Non-market oriented, monopolistic | Market-oriented, free to compete at the application level |
| Revenue in 2019        | 1.31 trillion yuan\(^i\) | A total revenue of 810.745 billion yuan, of which 75.335 billion yuan was generated by cable TV networks\(^j\) | 825.7 billion yuan (217.5 from fixed data and Internet services and 608.2 from mobile services)\(^k\) |
| Content/information source Problems | Lack of control over sources of content | Monopolize some sources of information and control the right to aggregate content or programs | Rich content sources |
|                        | Difficulty in business growth; inherent weakness of the unshielded-twisted-pair cable network; lack of experience in video business operations, profit model needs to be explored | Fragmented networks, outdated business concepts, slack operations; high cost of building bi-directional networks; lack of experience in operating bi-directional network and lack of a viable business model | Difficulties in building a manageable, controllable, credible and expandable network; lack of a profitable business model |

\(^a\)Number of Mobile (Cellular) Subscriptions Worldwide From 1993 to 2019” (2020).
\(^b\)“Number of Fixed Telephone Lines Worldwide From 2000 to 2019” (2020).
\(^c\)“Global Pay TV Subscriber Forecasts 2020” (2020).
\(^d\)International Telecommunication Union (2020).
\(^e\)Ministry of Industry and Information Technology (2020).
\(^f\)National Bureau of Statistics (2020).
\(^g\)Number of Internet Users in China from December 2008 to December 2020 (2021).
\(^h\)Ministry of Industry and Information Technology (2020).
\(^i\)National Radio and Television Administration (2020).
\(^j\)Ministry of Industry and Information Technology (2020).
reliable” nationwide network infrastructure as well as diversified business support capacities and strong value chain integration capabilities. As the table earlier indicates, its revenue in 2019—a whopping 1.31 trillion yuan—outperforms both cable and Internet operators; the sector’s user volume is oversized, divided between telephone users (1.79 billion), and broadband subscribers (449 million); it is not bogged down like cable companies by complex intellectual property issues; and compared to broadcasters, regulatory control is relatively light. In addition, telecom operators are developing IPTV, mobile TV, and HDTV services to broaden service categories (Gao, 2016).

All those developments seem to make the telecom sector an invincible player. But let us not celebrate too quickly. Telecom operators’ bright future is tempered with an intractable vulnerability—they have no control over content and are not allowed to produce, manage, or aggregate content. In its long drawn sparring with SARFT, MIIT lost its bid for acquiring content licenses for IPTVs run by telecoms. The policy of “select commercialization” has turned telecom networks into dumb pipelines and relegated the sector to the margin of the value chain of audiovisual services.

Have cable broadcasters fared better then? The table above shows at least three disadvantages broadcasters need to overcome in order to reap maximal benefits of convergence. First, its network is of such low quality and low reliability that reconstructing it requires a gigantic investment of 50 billion yuan. Even with Beijing’s funding support, the sector needs to fill a shortfall of an astronomical 30 billion (Li et al., 2010, p. 40). Second, broadcasting is primarily a content business subjugated to heavy governmental regulations. In addition, local radio and television bureaus are governed by geographically segregated provincial states that resist interconnections, not to mention following the SARFT’s directive of consolidating cables and building a national network. Local governments hesitate to yield entrenched interests, and changing the existing power structure is easily said than done. But all those drawbacks evaporated in the face of a privilege enjoyed by the broadcast sector exclusively—it is the content gatekeeper ordained by the SARFT. The telecom sector that is running IPTV services finds itself stuck in an undesirable situation where IPTV is not allowed to make content-related decisions but instead, it is required to source content from SARFT designated programming providers. Like IPTV, Internet companies providing audiovisual services also rely, by decree, on those officially licensed content providers and content aggregators to source content. Thanks to SARFT’s regulatory intervention, the broadcasters are on a winning streak.

Finally, the rivalry of the three networks has compelled each sector to busily upgrading and expanding its own network infrastructure. The telecom industry was obliged to accelerate the construction of optical fiber networks and promote the “Broadband China” project to boost its portal capacity—an expansion necessitated by the increased volume of data traffic incurred from its newly added media services. The broadcast industry, on the other hand, is actively building a “next-generation broadcast network” in order to bolster the digitalization of cable networks. But the slow integration of provincial cable networks presented a thorny issue awaiting a solution.

A partial solution arrived in 2014 with the establishment of China Broadcast Network Co. (CBN). Jointly owned by provincial cable network companies, CBN represents a centralized mechanism driving the convergence of provincial cable networks. To ensure the smooth integration of local cables, the MIIT issued a telecom operating license to CBN in 2016, and 3 years later, the new entity joined the three major telecom operators (China Telecom, China Unicom, and China Mobile) to receive a 5G commercial license, which is a big step toward upping the ante of the broadcast sector and increasing the competitive edge of the SARFT over MIIT. In recent years, SARFT has also started developing the “smart radio and television” (智慧广电) project, hoping to
upgrade the industry with new technologies such as artificial intelligence, cloud computing, and the Internet of Things to seek growth opportunities further.

Who sits in the driver’s seat?

To recapitulate the terms of competition, both the broadcast sector and the telecom sector have strengths and weaknesses. For the broadcast industry, rich content, huge bandwidth, and the spread of users all over big cities and small towns in 31 provinces are definitely advantages that telecoms cannot live up to. To balance off the sunny picture, broadcasters are handicapped by a number of unresolved issues. The consolidation of cable networks has not yet been completed, nor has the scale of digitalization reached its designated target. The current network of the broadcast sector can hardly satisfy the demands of the bi-directional transmission required of a revamped cable system.4 Neither the backbone network nor its metro-area networks are well developed. Closing the gaps requires a breakthrough of the funding bottleneck. Finally, to emerge as a long-term winner, the broadcast industry must also accelerate its high-speed broadband construction. The 2010 data show that globally the broadcast sector provided an average of 30% broadband services, with the US cable network offering 57% of broadband services, while China’s ration was a paltry 2% (Bao, 2010, p. 26). In 2019, even after the network upgrade, China’s cable operators provided broadband to only 42.44 million users, accounting for less than 10% of national broadband services (Jia’nan, 2020). In comparison with the 449 million users receiving broadband services from the telecom operators (Central Cyberspace Affairs Commission, 2020), the broadcasters have a long way to go to catch up with their telecom rival.

What about the telecom industry?

Convergence has no doubt accelerated telecom networks’ transformation. In the short run, the challenge for telecoms boils down to the increase of broadband speed. The sector must also bring optical fiber to townships and expand the coverage of broadband networks in rural China. As discussed earlier, the biggest deficit of the telecom sector is content, more specifically, the power to create and control content, a privilege firmly held in the hands of the radio and TV industry. The gateway to victory is not completely closed to the telecom sector, however. The opportunity to win its contestation with cable stations could rest on the telecoms’ experiment with OTT TV.

Over the top TV: how did the Internet disrupt the TV industry?

Our prior discussion about the triple play focused primarily on two networks, leaving the third—the Internet—unattended to thus far. It was not an oversight. We saved our inquiry into the Internet for where it matters the most—over-the-top TV.

During the continuous evolution of the Internet and terminal devices, emerging new forms of content distribution such as apps and platforms have posed enormous challenges to traditional broadcast industry. For example, new distribution venues such as IPTV and OTT TV reduced the revenue of China’s cable television by 6.59% in 2018. In comparison, OTT TV’s earnings jumped by an epic 156.47% (National Radio and Television Administration, 2019). The continuous loss of user base forced both broadcast and telecom industries to reckon with the arrival of OTT TV and they began actively exploring viable pathways to enter the territory of online television. The process of finding an entry ticket took a long time. In the United States, as Amanda Lotz (2018) argues, it took more than “twenty years of sustained disruption” (pp. 176–177, 180) before OTT TV evolved into a legitimate industry. In China too, the Internet distribution of TV is a story of
measured evolution, not revolution. We now turn to the different players of Chinese OTT TV and examine how they maneuver to upstage each other.

The pioneer of OTT TV service: smart TV maker

To dive into the history of Chinese OTT TV, we have to first introduce an unlikely mover and shaker of over-the-top television—smart TV manufacturers. In December 2008, TCL, a TV maker, signed a strategic agreement with Intel to popularize the concept of Internet-distributed television (PJTime Editorial, 2008). In March of the following year, TCL rolled out MiTV, a precursor of OTT TV that integrated digital network and content services (which include video downloads, distance education, online karaoke, and fitness games), fully unlocking the infinite possibilities Internet TV can provide (PJTime Editorial, 2010). Almost simultaneously, other famous TV brands, among them, Skyworth, Konka, and Changhong also jumped on the bandwagon to manufacture TV sets with the capability to connect to the Internet.

Back then, MiTV and its look-alikes could only access a handful of websites. The content served on the smart screen was mostly provided by the manufacturer’s self-built platform or acquired through collaborative deals with video websites, the content of which was not copyright. In this first wave of Chinese Internet television, smart TV makers emerged as pioneers in pushing online TV into the mainstream, a scenario posing a stark contrast to the marginalized status American smart TV manufacturers find themselves in the value chain of OTT TV.

TCL versus Vizio

A comparative note is called for to highlight the vanguard position taken by Chinese smart TV makers vis-à-vis their American counterparts. On 27 May 2020, Ad Age announced that Vizio, the largest US maker of smart TV sets, has been building its content library by partnering with traditional publishers Gannett and Conde Nast, and in so doing, it brought the video content of brands nested under those two publishers’ umbrella straight to consumers. Vanity Fair, Wired, Vogue, GQ, and Glamour have all been quietly rolling out dedicated channels in Vizio’s channel line-up (Dumenco, 2020). This news caught our attention because it unveiled a new trend in American streaming TV. It introduced the “direct-to-device” content strategy and thrust into the competitive marketplace an unlikely player—TV manufacturer—which is now competing for audience with seasoned rivals such as cable broadcasters, satellite operators, MVPDs, and OTT platforms like Netflix and Hulu.

Build-in cable-like content package that comes automatically and free with a purchased TV set seems like a novel idea. But Vizio’s intrusion into the ecosystem is hardly a new story to Chinese ears. Juxtaposing TCL’s dabbling into media business as early as 2009 and Vizio’s 2020 attempt of achieving the same goal is indicative of the different media systems between China and the United States. Such a contrast also illuminates the role SARFT played in shaping the power structure of the OTT TV industry.

TCL’s early attempt of entering the content market, impressive as it may appear, suffered an immediate setback in the hands of Chinese regulators. The TV maker’s fumbling with the copyright of content served on MiTV led to a lawsuit brought against TCL by a Beijing-based tech company that owned the exclusive copyrights of three relatively unknown films that MiTV poached unwittingly through an online search module embedded in the TV set. Once connected to the Net, users could find and download those films delivered by a P2P software supporting BitTorrent protocols. Apart from paying fines, the primary defendant—the TCL Group—was
ordered to immediately stop the production and sale of MiTV (L. Zhao, 2010). Stripped of its right to participate in the OTT TV ecosystem, China’s smart TV maker had to wait until 2018 to reposition itself in the value chain through a long-term partnership with content producers like Guangdong South New Media and other content licensees.

**Streaming boxes banned and unbanned**

TCL’s pioneering strategy of blending hardware, software, and content into a holistic service pre-dates Vizio’s master plan by 11 years. But TLC’s mutation into a media company was short-lived. The lawsuit, dubbed “China’s first ever legal case on DTV,” bore witness to the early steps taken by Chinese policymakers to configure the future of the OTT TV industry. It also reminds us once again of the bottom line of the SARFT, that is, screen content must be “manageable and controllable” (可管可控), a logic harking back to the Chinese logic of “select commercialization.” True, in the eyes of censors, the biggest problem with OTT TV is its built-in capability of providing consumers access to an ocean of open content circulated online. The regulations from 2009 onward thus focused on how to block users’ access to “unsafe content.”

At the same time, when TCL started its venture into media services, several Internet companies, among them LeTV and Xiao Mi, had also sneaked into the burgeoning ecosystem of OTT services by making and selling streaming boxes that linked traditional TV sets to the Internet. In 2011, OTT boxes flooded the market, provoking the SARFT to ban the device initially in July. But those boxes did not disappear completely. Sought after by consumers thirsty for unrestricted access to online content, they simply went underground. Regardless, with the disciplining of smart TV makers and streaming box manufacturers, the earliest wave of OTT TV in China was quickly nipped in the bud.

However, OTT TV was a global trend hard to ignore despite the initial obstruction of regulators. Sure enough, regulations soon loosened up. Not only did the SARFT ordain seven audiovisual groups as OTT content licensees in 2010 and 2011 (iResearch, 2014), it also rolled out Decree No. 181 to relax the ban on OTT boxes, allowing them to exist as long as box makers cooperate with content licensees (State Administration of Radio, Film and Television, 2011).

OTT TV licensees were divided into two distinct categories—content providers and content aggregators. In operational terms, content-provision licensees are responsible for producing, collecting, and auditing content; content-aggregating licensees bundle and curate audiovisual content acquired from legitimate content producers for distribution. With the dual licensing framework put in place, the SARFT has laid down the groundwork for regulating OTT TV. Given that holders of the two-track licenses are all media companies nested within the broadcast sector, we can safely assume that the SARFT has firmly controlled the operation of OTT television. And yet, the development of OTT TV is not a matter of exclusive concern for broadcasters. Let us not forget about the other players—TV makers, content licensees, telecom operators, and Internet companies—all of whom, together with cable broadcasters, are waiting to carve up a slice of the OTT pie. To sort out the crisscross relationship between all five players, we turn to Table 2.

**Five OTT TV stakeholders: the importance of collaboration and competition of ecosystems.** This table shows how each stakeholder positions itself in the OTT TV ecosystem, with each party staking out competitive and/or cooperative relationships with other players in the value chain. The notion of open content that consumers can access through the Internet—a prominent feature of OTT TV—raised real alarms with regulators. To ensure the distribution of safe content, the SARFT designed
Table 2. The five stakeholders of over-the-top (OTT) TV and their operational models and business models.

| Stakeholders                          | Assessment                                                                                                                                                                                                 | Business Model                                                                 |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Smart TV hardware manufacturers       | Under the provisions of Decree 181, a given TV set can provide consumers access to online videos only through the platforms run by licensed OTT content aggregators. Second, a specific TV model is allowed to cooperate with only one licensed OTT content-aggregator. And the contract is an exclusive one. Each TV set is given a unique serial number assigned by the SARFT to ensure that users are viewing the content on a legitimate aggregator’s platform. | Bundling of hardware purchase and services: Manufacturers sell TV sets in a one-time transaction and cannot cultivate long-term relationships with consumers without the help of other stakeholders. |
| 7 OTT TV licensees                    | Licensees enjoy the unique advantage of policy endorsement as the sole source of legitimate content. But unlike broadcasters and telecoms, licensees do not own their own transmission networks to which users pay access, nor can they produce TV hardware like Telephone Communication Limited (TCL) which brings considerable earnings. | Full value chain cooperative model: OTT operators possess few revenue streams coming directly from consumers. They feel compelled to work closely with other stakeholders in the value chain to generate actual income. |
| Internet companies                    | The three biggest Internet companies Baidu (owner of iQiyi), Alibaba (owner of Youku Tudou), and Tencent (owner of Tencent Video) are recognized as the most innovative, and therefore, the most powerful competitors in the OTT TV ecosystem (You, 2017b). They submit rich content to OTT licensees for audit and approval. The diversity of content expands service categories and creates multiple opportunities for revenue increase. It is now possible for internet companies and OTT licensees to reap profit from quality content through membership subscriptions. | Content + streaming devices: Internet companies are not allowed to provide content directly to users without working with content licensees. They rely on partnerships to offset the cost of bandwidth and content copyright. |
| Telecom operators                     | One of the biggest achievements of the telecom sector since 2010 has been the quick development of Internet Protocol Television (IPTV). However, the IPTV license awarded to the three telecom companies is only a content distribution license that does not give them the right to aggregate content served on IPTV. Stripped of its right to manage content, telecom operators have gradually assumed the role of dumb pipelines. | IPTV + OTT model: OTT TV operators are not allowed to provide live programming. But the live broadcast content of IPTV can make up for this particular deficiency of OTT TV. This model allows telecom operators to deliver both live broadcast and OTT TV’s nonlinear video on demand (VOD) services. |
| Cable operators                       | The broadcast sector has digitalized its cable network in preparation for triple-play services. The technology upgrade enabled the cable TV network to optimize its data transmission capacity and deliver more channels and more high definition content. | Digital Video Broadcasting (DVB) + OTT model: Built on cable TV’s set-top box, the new model integrates Internet access and video processing models for OTT services. This model compensated OTT TV operators’ inability to provide live content. Through collaboration with local TV stations and local cable networks, the broadcast sector bundle “live broadcast and streamed content (VOD)” to ward off the competitive threat from IPTV. |

Although we rely heavily on Liu Yang’s article (Liu, 2013, pp. 58–59) to draw up the table, we have contributed new content to it.

a content licensing system and dictated that all OTT players must work with licensees for content sourcing. And to protect the interests of IPTV and cable TV—providers of live programming—Decree No. 181 forbade the other OTT TV operators from offering live content (State Administration of Radio, Film and Television, 2011). This constraint motivated telecom and cable operators
to develop a business model that provides live content side by side with on-demand content, an arrangement that compensates for OTT TV’s Achilles’ heel.

Most important, the table demonstrates that none of the five players can reap benefits by acting solo. Even the empowered licensees have to cooperate with telecom operators to guarantee the quality of transmission and to rely on the huge user databases of telecom companies to develop new customer base. And through their collaboration with TV manufacturers, OTT license holders can implant interface software into TV terminals and charge the latter for corresponding fees.

Take TV maker as another example of collaborative thinking, SARFT’s regulatory approach—making TV manufacturers’ partnership with OTT licensees compulsory—fulfilled two goals. It eliminates “risky” content on one hand and fairly allocates market shares for each partnered OTT licensee on the other hand. All those developments demonstrate that TV makers have to build strategic partnerships with OTT licensees and Internet companies to jointly develop an online TV ecosystem, a setup built on a triple-win proposition. Increasingly, we are witnessing a competitive landscape built on ecosystem rivalry, which will redraw the power structure of the Chinese TV industry in the near future. This is not the place to venture into a discussion of this burgeoning trend which American industry observers designate as “sectors without borders” (McKinsey & Company, 2017), a phenomenon that already emerged in both China and the United States. Suffice it to say that in the specific sector of OTT TV, we are witnessing a contestation that is no longer confined to the scenario of platform competing against platform such as Tencent versus Alibaba, or iQiyi versus Youku, or one OTT licensee versus another. Rather, it is one ecosystem (i.e. TCL (hardware maker) + Tencent (Internet company) + South New Media (OTT licensee)) against another ecosystem (i.e. Xiaomi (hardware maker) + iQiyi (online video platform) + Galaxy TV (OTT licensee)). While copycatting on social media has led to the homogenization of platforms (all of which now offer a news feed, private messaging, a live broadcasting feature, and disappearing posts), platform competitors are now embarking on a path of vertical expansion, that is, building ecosystems. The shaping of OTT TV ecosystems, or the alliance making between TV hardware makers, Internet companies, and OTT TV licensees, is but a tip of an iceberg. While a different article on media ecology is required to explicate such a trend in depth, we can safely conclude that as a result of safe content policy, the future of the Chinese TV industry will be increasingly organized as an economy evolving around competing ecosystems.

Conclusion

Chinese media industry is characterized by dual attributes: it is both a noncommodifiable public institution and a partially commercialized entity. In the last 40 years of media reform, the sector gradually transformed itself into a hybrid creature whose old identity as an instrument of governmental propaganda cohabitates with its equally strong instinct to commodify. And yet, no matter how fast changes descend on the sector, the mouthpiece function of Chinese media remains the bottom line which the SARFT guards with renewed vigilance.

An inevitable conflict arose with the arrival of the disruptive OTT technology. The free DNA of the unbridled Internet sits uncomfortably with the controlling reflex of media police. As the regulator of the broadcast industry, the SARFT finds itself caught in a double bind: feeling compelled to adapt to the global trend of network convergence and OTT TV, while continuing its unpopular role as a gatekeeper of “correct ideology.” The balancing act between market innovation and its impulse to restrict content access has led the SARFT to subjecting the relevant players of OTT TV and triple play to select commercialization and partial incorporatization.
In essence, how convergence is materialized and who sits behind the steering wheel are fundamentally political questions. The stakes are high because the development of the triple play and OTT TV will reshape the power configuration of SARFT vis-à-vis MIIT. The self-protective impulse of the SARFT has driven every decision it made to reform the TV industry. The policy that forbids OTT TV operators from offering live broadcasting service must also be interpreted as a strategy the SARFT designed to preserve precious breathing room for beleaguered cable operators. Similarly, all seven OTT licensees are without exception media enterprises invested by the broadcast sector, which surely safeguards the mother ship’s vested interest—that a stale, traditional broadcast industry can still play a pivotal role in the OTT TV regime.

Finally, this article, which starts with a comparative note, shall end with one. Although the pace of convergence at the level of ownership differs greatly among countries, vertical integration appears to be the most common strategy Western communications enterprises adopt in order to flourish in the digital era (Iosifidis, 2011, p. 175). “Vertical integration” in the form of joint ownership of both distribution networks and audiovisual content has gained momentum in recent decades, just to cite a few megadeals in the United States that occurred in the wake of the 1996 Telecommunication Act—the US$182 billion merger between AOL and Time Warner, and the acquisition of Comcast of NBC Universal and DreamWorks, and AT&T’s snapping up of DirectTV and Time Warner. Such vertical merger and acquisition layout is largely absent in China, prompting an analyst to deplore that China’s telecom companies lag far behind Comcast and AT&T in building strategic content partnerships (You, 2017a). The policy breakthrough, we suspect, would not be coming at all, considering the strict ideological redline that already barred telecom operators from content production and content aggregation, not to mention that the perennial battle between the SARFT and MIIT would surely kill any marriage proposals between media companies and telecom operators.

Looking ahead, we find it hard to predict whether a new Chinese Telecommunications Act may break down some of the restrictions the telecom sector has endured under the current policy framework. In November 2019, the draft version of the new law, which has been in labor for over 39 years, was finally incorporated into the legislative plan of the 13th NPC Standing Committee for deliberation. The new law is set to redefine the legitimate rights and interests of telecommunications operators and devise new ways of managing the Internet rather than falling back on traditional regressive regulatory measures (Uxue Zaixian, 2019). Will China’s telecommunications legislation give the MIIT more regulatory power? Will it resolve the content bottleneck imposed by the SARFT on telecom operators? How will the new law affect the current configuration of triple play and OTT television? We wait patiently for the next phase of China’s policy experimentation to unfold.

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**Notes**
1. Des Freedman mentioned in *The Politics of Media Policy* that British Culture Minister Jessa Jowell acknowledges the switchover policy as an example of government intervention. US$1.5 billion was
made available in the United States and the United Kingdom spent 800 million in pounds to roll out DTV. This prompted Des Freedman to conclude that digital switchover is “a clear example of coercive, determined, political government” (Freedman, 2008, p. 183).

2. The SARFT was renamed the State Administration of Press, Publication, Radio, Film and Television in 2013. In 2018, SARFT transferred the responsibilities of press, publication, and film administration to the Propaganda Department, and was subsequently renamed the National Radio and Television Administration. In order to promote the integration of information technology and industrialization, China changed the former Ministry of Information Industry into MIIT in 2008. For consistency’s sake, we will refer to them as SARFT and MIIT throughout the article.

3. While most of the materials included in Table 1 were taken from Wei Leping’s essay; all the 2019 data were provided by the authors of this article.

4. Traditional TV signals can only be transmitted one-way from broadcasters to users. In contrast, the “bi-directional” cable network refers to “two-way signal transmission,” which can be materialized after the expensive network upgrade. Bi-directional cable setup provides interactive services such as information search and video on demand (VOD) options.

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