Television and globalization:
The TV content global value chain

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Introduction

This article uses the global value chain (GVC) framework to analyze the globalizing processes that are taking place in the TV industry and argues that they have been driven by the dynamics of a newly formed *TV content value chain*. First, distinct segments emerged (content production, distribution and aggregation), and then the chain globalized as firms sought a competitive advantage by expanding internationally within their sector. This led to an increase in cross-border media flows, the transnationalization of production processes and the global coordination of the businesses involved in the chain. This article shows how the turning point which began in the late 1990s was characterized by the sudden and *synchronous* growth of transnational TV networks and formats (concepts of TV shows that are licensed for local adaptation).

This article first introduces the GVC framework and analyzes the chain's input-output structure, examining each segment in turn. It also investigates its governance framework and studies the set of power relations among firms that populate the chain. Then, it establishes how the chain's dynamics steered globalization processes in the industry and, documenting the growth of cross-border TV channels and formats, it argues that a *global shift* around the millenium marks the moment when the TV industry began coordinating on a global scale. Finally, it contends that conglomeration in television needs to be comprehended in the context of international production fragmentation within

expanding value chains and Internet disruption.

Research for this article is based on GVC methodology, which is particularly useful to understand interactions between firms, connections across segments and shifting patterns of production (Gereffi and Fernandez-Stark, 2011: 2). On the other hand, this article is limited to one particular chain in the TV industry, albeit an important one, and does not have the space to offer an in-depth study of each and every segment. As often in GVC studies, data come from a mixture of interviews and secondary material. Most of the fieldwork took place in London, where TV executives have been interviewed by the author since the early 2000s (this article takes a holistic perspective and cites only a tiny fraction of this material). None of these interviews were designed for a GVC analysis, and only during data analysis did the author progressively realise that value chains are a structural reality of the TV industry and the key to unlocking an understanding of its rapid globalization, hence this article.

The use of three terms needs to be clarified. 'International' simply means that a firm operates (or TV channel broadcasts, etc.) in more than one country. 'Transnational' is used to suggest that a good, service or business adapts as it crosses borders and incorporates local and global elements: a TV format incorporates rules that are global in scope and alterations that are local in character; a transnational TV channel adapts (in terms of language, schedule or programming) to local audiences. 'Global' is used to denote scale, for example when referring to a conglomerate that operates in 100-plus territories. It can also imply interdependence: a value chain is said to be global not merely because it is international but because it involves firms that interact with one another across borders and depend on one another to design, manufacture, transport and market a product.

Applying the global value chain framework

The GVC approach originated in world-system theory and precisely in Hopkins's and Wallerstein's concept of 'commodity chain', which they developed in order to establish 'whether and to what extent a capitalist world-economy was an organizing force and a structural reality during the sixteenth, seventeenth, and the eighteenth centuries' (Hopkins and Wallerstein, 1986: 159), in contradiction to many scholars who usually set the onset of globalization in the nineteenth and twentieth centuries (see Nederveen Pieterse, 2004: 14-21). They called a commodity chain a 'network of labor and production processes whose end result is a finished commodity' (Hopkins and Wallerstein, 1986: 159) and described these chains 'as the warp and woof [or weft]' of the world-economy's system of production (Hopkins and Wallerstein, 1994: 17). The relevance of their approach to the contemporary world economy was apparent and in the 1990s Gary Gereffi and colleagues initiated a body of literature labelled global commodity chains (GCC) analysis (Gereffi *et al*., 1994). In the subsequent decade, the GCC approach morphed into GVC theory in order to reflect the interdisciplinary nature of research into chains and avoid to the connotation of the term 'commodity' with primary products such as crude oil (Bair, 2009; Gereffi et al., 1994; Lee, 2010; Sturgeon, 2009).

The GVC perspective provides a unique tool to comprehend the structure of the global economy, which is characterized by a twin process of international fragmentation (also known as disintegration) of production and integration through trade (Feenstra, 1998: 31). Fragmentation is caused by the growing number of companies that outsource part or the entirety of the production process and that sell branded products they do not manufacture (Gereffi, 2001: 1620). In parallel, world markets have integrated through trade, which in

recent decades has grown dramatically both as a percentage of the world GDP and in absolute value: world merchandise exports have risen from US$ 59 billion in 1948 to US$ 18,301 billion in 2013 (Feenstra, 1998: 31; WTO, 2014: 23).

The process of fragmentation corresponds to 'a breakdown in the vertically-integrated mode of production' and a world-scale division of labour as multinationals spread their operations across the world allocating tasks and resources according to the competitive advantage they find (Feenstra, 1998: 31). It is sometimes referred to as the 'second unbundling', following the first unbundling of production and consumption which accelerated with steam power in the 19th century (Baldwin, 2013: 13-26). International production processes have become characterized by inter-firm networks that span borders and form global chains, which Gereffi defines as 'sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the world-economy' (Gereffi et al., 1994: 2.). Today, trade within value chains is worth US$ 7,723 billion, which represents more than half the total value of (non-fuel) global exports (WTO, 2013: 182-3).

Value chains have four dimensions. In essence, a chain consists of 'a sequence of value-adding economic activities' that results in a finished commodity (Gereffi, 1994: 97). Segments, also called processes or 'boxes', vary from one chain to another but often include inputs (materials such as aluminium in the chain for passenger and transit rail vehicles or agrochemicals in the fruit and vegetables value chain), research and design, manufacturing, distribution, marketing, sales, consumption and recycling. The shape and nature of these sequential stages give a chain its anatomy or *input-output structure*. *Territoriality* is the spatial dispersion of the production processes, the *governance structure* relates to issues of control and power among economic agents and the *institutional*

framework refers to the impact that social context, institutions and regulatory systems have on value chains (Bair, 2009; Gereffi, 1994; Gereffi et al., 1994; Gereffi, 1995; Gereffi and Fernandez-Stark, 2013; Sturgeon, 2009).

The purpose of this article is to demonstrate that TV content production is increasingly being coordinated on a global scale by a newly emerged *TV content value chain*. Until the late 1980s, with the exception of the USA, broadcasters were fully integrated operations: apart from domestic films and imports from Hollywood, they produced much of what they aired. Cultural sovereignty was foremost in the minds of regulators and foreign broadcasters were not allowed to transmit on national territory. The law books of many nations also granted a monopoly to public broadcasters, who were tasked with entertaining the masses in an acceptable manner and making a contribution to national culture (e.g. Scannell, 1996).

The disassembling of the old production model occurred when a combination of factors, including economic growth, rising industrial complexity, deregulation measures, trade liberalization and new technology, consumer demand and preferences, progressively led media firms to concentrate on those activities in which they retained a competitive advantage. This strategy created production segments that progressively formed a chain through which TV content began to travel from inception to consumption. This chain acquired international scope when broadcasters stepped up foreign outsourcing in search of the best programmes and formats, and when their own suppliers expanded across borders.

As an industry, television can be seen as a series of inter-locking international production networks. The TV content value chain, on which this article focuses, lies at its core. Although its nature varies in accordance with the type of content (finished programming, formatted entertainment or sports), the key segments remain similar in all

cases. In addition, the manufacturing and marketing of TV sets, set-top boxes, remote controls and satellite dishes is coordinated by *TV equipment global value chains* based in the consumer electronics industry. For instance, the TV set industry is coordinated by a handful of players that have developed global production and distribution networks. The industry leader, Samsung, produces its own sets and sells some to other companies, while most Japanese manufacturers such as Hitachi, Matsushita or Sony, have closed down many of their factories and out-sourced most of the production to original equipment manufacturers (OEMs) such as Foxconn, a Sino-Taiwanese company. The geography of the chain has gone through major shifts in recent years, as these firms invest – or divest – in territories in function of the local advantage they find. Mexico, for instance, saw first a surge and then a decline in production in recent years as Japanese businesses that have not retreated from manufacturing altogether have relocated their operations to Asia (Carrillo et al., 2015; Kenney, 2004; Mortimore et al., 2000). Finally, companies in the *communications global value chain* deliver connectivity and specialize in the distribution and transmission of data and TV signals (see below).

The TV content global value chain

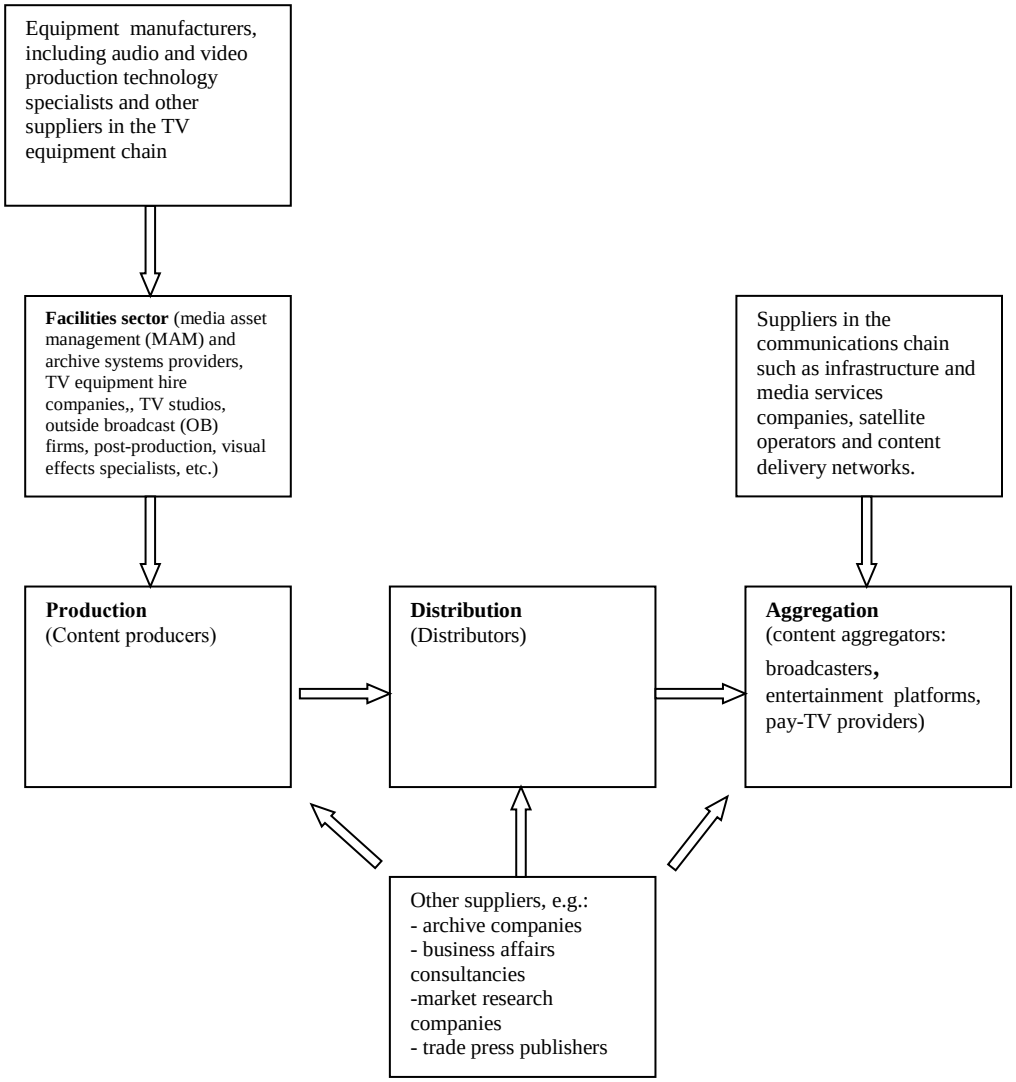
This chain is composed of three core segments: content production, distribution and aggregation (Figure 1). This section analyses each of these 'boxes' and the sub-segments that complete them.

Content production

TV production is a fast-growing sector that consists of the *production of content that is licensed to content aggregators*. Historically, independent TV content production sectors

developed first in the UK and USA. In the latter, it flourished until the Financial Interest and Syndication Rules were dismantled in the 1990s, weakening the rights position of producers vis-à-vis broadcasters and media conglomerates (the 'fin-syn' rules were introduced by the Federal Communications Commission two decades earlier in order to prevent US networks from owning the programmes they aired in prime time) (Kunz, 2007: 77-8; Lotz, 2007:82-97). In the UK, the sector began to grow in 1982 when the government decided to set up Channel 4 as a 'publisher-broadcaster' that was required to commission its programming from independent producers (Darlow, 2004; Potter, 2008). Following further regulatory support, the sector was supplying 10,000 hours of TV programmes to the UK's terrestrial channels, had an annual turnover of £722 million and employed 12,000 staff by the mid-1990s (Jones, 1995). The Communications Act 2003 was the final piece of the regulatory puzzle: giving the independents full control over their rights, it led to the rise of larger production companies (known as the 'super-indies' in the UK) and to the sector's unprecedented international growth (Chalaby, 2010).

Figure 1: The TV content global value chain



Source: author

Companies in this segment serve a global content market valued at US$ 50 billion (ITV, 2014: 7). They have become adept at disaggregating the rights attached to their intellectual property in order to serve a variety of windows, platforms and off-screen market segments. For each programme, content aggregators can acquire a variety of rights including television, interactive television, format (or remake), video-on-demand or new

media (for their online platform).

Producers have their own suppliers. In the UK, the firms that service them are part of the 'facilities sector', which consists of 1,300 businesses employing in excess of 50,000 people for a combined turnover of £2.2 billion (Pennington, 2011: 14). This sector is varied and comprises numerous specialist providers, such as:

- TV studios, defined as 'factory floor[s]' that provide a range of facilities (including stages, production offices, workshops and dressing rooms) which enable a TV programme to be made as efficiently as possible (Kempton, circa 2014). In the UK, some studios are owned by broadcasters but many remain independent. Among the largest is Elstree Studios, comprising seven film and TV stages that range from 3,844 to 17,770 square feet. Like all TV studio complexes, Elstree hosts specialist suppliers that offer the back-up services integral to a shoot, such as prop-hire and kit-hire businesses (which also supply the crew that operate the rental equipment), special effects and prosthetics experts, and action vehicle suppliers.
- Outside broadcast (OB) firms are also part of the communications value chain supplying the editing trucks and live transmission facilities that are required for the broadcast of sports events and special ceremonies. In the UK, the OB market is shared among four firms (Arena, CTV, NEP Visions and Telegenic) and the biggest contract on offer is the retransmission of English Premier League football (Pennington, 2014).
- Post-production covers, notably, video and audio editing, the addition of visual and sound special effects, and the preparation of the completed work in the required formats ready for broadcast. While it still takes place once the shooting is

completed for scripted programming, it is increasingly integrated into production workflows across the reality TV genres. These latter shows have a very high shooting ratio (they shoot many more hours than they need for the final version) and storylines are shaped during the post-production process on the firms' powerful non-linear editing systems. Fixed-rig productions using remote control cameras to unobtrusively film in sensitive areas such as secondary schools or A&E units also generate a vast quantity of material in need of editing (Sargent, interview 2010; Strauss, 2014: 32).

In London post-production houses cluster around Soho, with staff varying from fewer than 10 to around 300. Their combined turnover stood at £529 million in 2012 (Dams, 2012; Pratt and Gornostaeva, 2009). The sector faces challenging conditions: post-production houses are under pressure to do less for more, not least because technological advances ensure that the barriers of entry to the industry remain low. Rapid technological changes have also meant that soft and hardware quickly becomes obsolete and workflows need to be constantly updated. However, the leading outfits such as The Farm, Envy or Molinare are growing well because they have state-of-the-art facilities and have large teams of creative staff whose skillset is constantly brought up to date. In the case of The Farm, the group can serve producers in LA and London.

- Media asset management (MAM) and archive systems specialists provide solutions to digital workflows, multi-side media management (ensuring the connectivity of platforms during the collaborative process), scalable storage systems, data archiving and indexing, and data migration and protection. Because of the rapid evolution and complexity of the technology involved, such as, for instance, the

introduction of cloud-based computing, many of the firms in this sector are hardware agnostic and focus on designing bespoke MAM systems for their clients.

- The supply chain of the production segment is constantly evolving as new techniques emerge and the complexity of putting together a TV show increases. The need for second-screen applications and video games, and the use of minicams (on board Formula One cars for instance), special rigs and unmanned aerial vehicles (UAVs) for filming, is providing a host of opportunities for niche providers that are often newcomers to the TV content value chain.

Further down the content chain, the facilities sector has its own suppliers which include a wide range of software companies and equipment manufacturers. Camera systems, monitors, projectors and other accessories are made by global firms like Cannon, Panasonic or Sony. The largest manufacturer of professional motion picture equipment, however, is German: Arri was founded in Munich in 1917. Sennheiser, also from Germany, makes audio equipment such as microphones and headsets. Post-production houses rely on audio and video editing suites and software that have become vital to programme making, and the leaders in post-production editing and engineering technology are US-based Avid and Blackmagic Design, from Australia.

The archive sector that provides footage of historic events, wildlife, sports, news and current affairs is among the suppliers offering services to both producers and broadcasters. These companies exploit large libraries of content that are currently being digitized to be made available online. There are also research companies that dispense market intelligence and ratings analytics; the prime example remains Nielsen, funded in 1923 and listed on the New York Stock Exchange. It provides the national measurement service in the USA and

Canada and analyses viewing habits across 100 territories. Some younger companies specialize in mining the various data sets generated by the social media universe surrounding TV shows of today. There are also trade press publishers, trade fair organizers (e.g. Reed Midem, which owns the MipCom and MipTV annual events in Cannes) and business affairs and commercial consultancies that help media firms sell or buy assets or raise finance.

Distribution

The role of the second segment, distribution, is to coordinate content production and content aggregation. Independent distribution developed early on in the territories where commercial television prevailed. In the USA for instance, Fremantle Corporation - the company that pioneered franchising in its home market and the sale of US TV series abroad – was established by Paul Talbot in 1952 (Guider, 2005). All American Television and King World, two syndication companies, provide other examples. In Europe today, the British distribution sector posted revenues of £1.16 billion for 2013, and the segment is increasingly dominated by integrated companies such as BBC Worldwide, FremantleMedia International and ITV Studios Global Entertainment (Table 4) (Fry, 2014: 4-5).

A distributor's core remit is to wring every last drop from the IP they represent, whether it belongs to their parent company or a third party. In the latter case, they need to obtain the distribution rights, which often necessitates the development of a long-term relationship between the two parties. With the multiplication of genres, rights, windows and platforms, distribution is an increasingly complex activity requiring support in finance, marketing, and commercial law. For instance, content acquisition may require programme

funding – a practice known as deficit funding - as broadcasters' budgets may not cover all production costs, which is usually the case with drama. In such a situation, the distributor owns some of the IP but shares the commercial risk.

The rights attached to a TV show have become extensive. On television, they include interactive, adaption and video-on-demand rights; beyond the TV screen, they embrace all sorts of new media and online platforms and extend to the ancillary rights that are necessary for licensing & merchandising deals. The sale of these rights needs to be coordinated among different buyers and territories. For instance, if a drama has been sold as a ready-made tape and then adapted at a later stage, the distributor must be mindful of where each version can be seen and needs to put in place a carefully choreographed sequence of holdbacks and releases (Jackson, interview 2012; Nohr, interview 2013).

Content aggregation

The third segment is content aggregation, which consists in *bringing content together under the umbrella of a single brand and marketing it to audiences and/or advertisers*. Digitization has multiplied the delivery modes and business models broadly fall into four categories (Table 1).

Table 1: Content aggregation business models

Linear/free-to-air	*On-demand (non-linear) /free-to-view*
commercial free-to-air channels; public service broadcasters; basic cable & satellite channels	Catch-up TV; video-sharing websites and multi-channel networks
Linear/pay-to-view	*On-demand (non-linear)/pay-to-view*
Pay-TV platforms and channels; pay-per-view TV programming	Transactional and subscription-based video-on-demand services (TVoD and SVoD)

Source: author's compilation

Linear and free-to-air operators include broadcasters that are funded either by licence fees or taxpayers (public service broadcasters), or commercial TV channels that air freely but recoup their investment through advertising and sponsoring. Free-to-view on-demand (non-linear) content consists of all digital content supported by advertising and/or licence fees. Public and commercial broadcasters' catch-up websites fall into this category, as do video-sharing platforms such as YouTube and social networks with video uploading facilities (e.g. Facebook). The content of these websites is increasingly provided by professional content creators and organized in channels by multi-channel network (MCN) operators. For instance, Maker Studios, a YouTube channel operator owned by Disney, claims 380 million subscribers worldwide across a portfolio of 55,000 channels (Webdale, 2014). Subscriptions require only an email address and the business model of these MCN operators remains advertising-driven.

Linear and pay-to-view content includes pay-TV services that are subscription-based.

It is a business model that leading exponents DirecTV (across the Americas) and Sky (in Europe) have helped establish. Pay-TV platforms charge subscribers for basic and premium cable and satellite channels that they blend with their own-brand networks; premium packages being driven by movies and live sports. Despite the arrival of new platforms and signs of 'cord-cutting' in mature markets (i.e consumers cancelling their cable or satellite TV subscription), the pay-TV market remains healthy. In 2014, it was worth US$ 269 billion and served 920 million subscribers worldwide, and is predicted to grow to 1.1 billion subscribers generating US$ 323 billion by 2018 (Clancy, 2014). Occasionally, these services offer pay-per-view (PPV) content for specific events (e.g. boxing matches on HBO). This content is broadcast at a specific time and makes PPV distinct from on-demand services.

The fastest growing business model is on-demand pay-to-view that encompasses all types of digital content delivery services that charge for access. Several distinctions exist in this market segment. First, there is a difference between *transactional video-on-demand* (TVoD) services that charge for each request (or transaction, hence the name) and *subscription video-on-demand* (SVoD) where customers pay a fixed sum of money, usually monthly, for a set amount of content. Technically, content can be streamed over the Internet, as most OTT (over-the-top) content providers do (e.g. Netflix), or it can be downloaded by customers to rent or own (Apple's iTunes and some broadcasters' on-demand websites). The SVoD market is dominated by two types of players: OTT providers that are 'pure' Internet companies and the on-demand services of pay-TV platforms (EAO, 2014: 137).

The European Audiovisual Observatory database (EAO henceforth) listed 3,037 on-demand services established in the region by March 2015 (EAO, 2015). OTT SVoD

provider Netflix has turned out to be the star company, accumulating 53 million subscribers across its territories by the same year (Webdale, 2015).

Content aggregators have suppliers in addition to producers. TV channels rely on infrastructure and media services companies in the communications value chain in order to broadcast their signals and reach viewers across a variety of devices. In the UK, most broadcasters, including the BBC, rely on Arqiva's communications infrastructure to keep connected to their customers. Pay-TV platforms, and many of the channels that are on them (CNN, Discovery, MTV, etc.) need satellite operators. In Europe, they use the services of either Luxembourg-based Société Européenne des Satellites (SES) or Eutelsat in Paris. SES broke Eutelsat's monopoly to launch its first communications satellite in 1988 and, co-locating craft in the same orbital positions, proceeded to build up *video neighbourhoods* capable of distributing hundreds of video channels over large swathes of Europe (Chalaby, 2009: 57-82). Today, SES is the world leader and operates a fleet of 54 geostationary satellites complemented by a large network of teleports (telecommunications centres that link satellites to ground-based communications) to broadcast more than 6,400 TV channels to almost 300 million homes worldwide (SES, 2014).

Satellite operators have their own supply chain as they need to procure spacecraft from one of eight manufacturers in the world, have them insured and get them launched. SpaceCo, an Allianz subsidiary, provide multiple covers against the perils of space travel, including pre-launch, launch pad property damage and in-orbit insurance. Perhaps not surprisingly, there are few providers able to launch satellites into space, Europe's Arianespace and United Launch Alliance, a Boeing-Lockheed Martin joint venture, are being the most preeminent. Elon Musk's SpaceX, a company founded in 2002, has started to make the launch industry more competitive: its Falcon 9 has proven its capability to

launch satellites into geostationary orbit at a fraction of the price of its older rivals (Dillow, 2015).

Entertainment platforms rely on content delivery networks (CDNs), which work as follows:

> A CDN is a system of distributed servers located in strategic positions around the globe that delivers web content to users based on their geographic location. Copies of the content exist on each server and by dynamically calculating which server is located closest to the person requesting that content, the CDN eliminates the distance that the content has to travel and reduces the number of 'hops' that a packet of data must make. This optimizes the user's receipt of that content and their viewing experience, even when bandwidth is limited or there are sudden spikes in demand (Strauss, 2015: 34).

In order to guarantee streaming quality, the leading international platforms, including Netflix, Amazon's LoveFilm and Google's YouTube, have built their own expansive network (Silver, 2015: 101), but other platforms rely on a third type of communications infrastructure specialists: CDN providers. World-leading Akamai, which carries up to 30 per cent of daily web traffic, has 160,000 servers in 95 countries (Strauss, 2015: 34). OTT platforms connect their CDNs with local Internet service providers (such as Comcast in the USA, Deutsche Telekom in Germany or Virgin Media in the UK) in order to pass through the last mile and reach customers (Silver, 2015: 101).

Power relations in the TV content value chain

The examination of the *governance structure* sheds light on the distribution of power within the TV content chain. Control and rewards are not equally distributed in inter-firm networks and some companies have come to play a leading role. Although the current GVC literature identifies up to five governance structures (Gereffi et al., 2005), the initial dichotomy between buyer-driven and producer-driven chains remains valid and suits our purpose:

> In "producer-driven" chains, power is held by final-product manufacturers and is characteristic of capital-, technology- or skill-intensive industries. In "buyer-driven" chains, retailers and marketers of final products exert the most power through their ability to shape mass consumption via dominant market shares and strong brand names. They source their products from a global network of suppliers in cost-effective locations to make their goods (Gereffi, 2014: 13).

The TV set value chain is an instance of a producer-driven network. The lead firms are companies that gain competitive advantage through research and innovation which they are able to leverage on a global scale. They benefit from high-entry barriers to an industry where considerable expertise and investment is needed to compete in such a concentrated sector. The TV set market, which exceeds US$ 105 billion (for 230 million units shipped worldwide annually) is dominated by three global electronics brands: Samsung, Sony and Panasonic (Campbell, 2014).

By contrast, the TV content value chain is driven by its retailers: content aggregators. There are a few instances where content producers are in the driving seat because they

have developed a show that is particularly successful and desirable to broadcasters. Some TV programmes are also complex to produce which gives a certain amount of 'competence power' to TV producers (Sturgeon, 2009: 129). Research, however, shows that ultimately the balance of power lies in favour of the broadcasters (Chalaby, 2015: 76-80). They are in control of the chain because they are much bigger than independent content suppliers, have large commissioning budgets and are far fewer in number than producers. Production remains in a fragmented sector characterized by low barriers to entry – unlike content aggregation - and thus operates in a market that is ferociously competitive. In the UK for instance, whilst ITV's revenues reached £2.6 billion in 2014, the turnover of the country's largest independent producer, IMG, stood at £173 million, dropping to £53 million for the tenth largest, Wall to Wall (*Broadcast Indie Survey*, 27 March 2015: 7; ITV, 2015: 107). Terrestrial broadcasters in the UK deal with a large number of content suppliers: the BBC commissioned programmes from 276 producers, Channel 4 from 338, and Discovery from 78 (*Broadcast Indie Survey*, 27 March 2015: 26, 31; Channel 4, 2015: 13).

In the UK, broadcasters behaved in a similar way to that of supermarkets whose size alone gave them control over large transnational food chains and thousands of farmers. Bullying and strong-arm tactics were so rife in the TV content chain that producers asked the Government to intervene. After intense lobbying, the Communications Act 2003 duly established a code of practice that safeguards terms of trade between broadcasters and their suppliers (Chalaby, 2010).

Internationalizing the TV content chain: The 1990s global shift

The GVC approach and its focus on firms' activities give us a better understanding of how exactly the globalization process unfolded. Initially, the formation of segments in the TV

industry changed the way firms sought to gain a competitive advantage. As a business grows, it acquires know-how and capital that can be sector-specific (Porter, 2004: 257). For instance, a company that builds a set of relationships with others not only makes chain coordination smoother but acquires an amount of *relational capital* (Capello and Faggian, 2005). As its skills and resources give it a competitive edge in a particular segment, it makes sense for it to grow internationally within this area.

Content aggregators operate in the retail market. They need the marketing skills to grow their subscriber base or aggregate eyeballs for advertisers. In the Internet age, they need to be available on multiple platforms, and for those broadcasters without recommendation algorithms, they must gather and interpret increasingly complex sets of audience data. Ultimately, all have to grow into *entertainment destinations* that satisfy a demand and build public-facing brands that are recognized by advertisers and audiences alike. In an ever more competitive environment, it is a demanding task that requires large sums of investment and a distinct skillset.

The expertise of TV producers allows them to devise programmes that are increasingly complex to produce: light entertainment shows need to come with second-screen applications, talent competitions require well-honed producing and editing skills, and the best travelled formats are always based on subtle but precise format points and rules. Producers also need to have accumulated relational capital: without past successes the doors of major broadcasters can remain stubbornly shut. They must be in constant touch with TV buyers and adept at pushing their formats onto the global stage: selling IP in a crowded content global market requires increasingly sophisticated PR and marketing campaigns. Thus, the search for competitive advantage had led firms to *seek growth internationally within their segments*, and played an important factor in the global

expansion of content aggregators and producers in recent times.

Transnational TV channels and platforms

TV channels began to cross European borders when the first communications satellites were launched in the early 1980s. In the first two decades or so, most of them struggled to break even and many closed down: their reception universe was too small, international transmission remained expensive, the international copyright regime was ill-equipped to deal with international broadcasting, regulators were unsympathetic and advertisers uninterested. The planets aligned in the late 1990s when barriers and obstacles began to recede: new technologies broke through (most notably, digitization facilitated the formation of large-capacity international communications networks), a viable international copyright regime was created (not least through the 'SatCab' EU Directive adopted in 2003), regulation evolved (e.g. the Television Without Frontiers EU Directive voted in Paris in 1989), the number of cross-border subscribers expanded and advertisers paid attention. This led to a rapid growth of transnational TV channels across a wide variety of genres, including news and business news (Bloomberg, CNBC, Euronews, etc.), factual entertainment (e.g. the Discovery and National Geographic suite of channels), entertainment (AXN, HBO and Fox-branded channels), children's television (such as Cartoon Network, the Disney brands and Nickelodeon), sports (Eurosport, ESPN), music television (MTV, Viva, etc.) and films (e.g. Studio Universal, Turner Classic Movies) (Chalaby, 2009).

As international broadcasters expanded across frontiers they learned to deal with a multinational universe and adapt their channels to local taste. They progressively broke up the pan-European satellite feeds they had launched initially and turned them into

transnational networks of local channels. Providing a prime example of 'the globalization of the business model of television and the efforts of international and domestic companies to deal with the resilience of national cultures' (Waisbord, 2004: 360), these channels share a concept, a brand, resources and infrastructures, and much of the programming, but adapt to their cultural and commercial environment. The degree of localization varies from genre to genre, from minimal in factual entertainment to the incorporation of local programming in children's television.

Today, media owners apply this principle across a portfolio of brands, which they deploy territory by territory. For instance, Discovery launched its first pan-European satellite feed in 1989. A quarter-century later, it operates 24 brands (Animal Planet, Discovery Channel, DMAX, Quest, etc.) reaching 436 million cumulative subscribers across 22 European territories. As these brands are localized in most countries in which they operate, they represent in excess of 200 channels in total (Animal Planet has 34,TLC has 21, and so on) (Table 2).

Table 2: Leading transnational TV networks in Europe, 2013

	Number of brands/Key brands	*No. of channels*	*No. of territories*	*No. of cumulative subscribers (in millions)*	*Revenue (US$ million)*
Discovery Networks	25/ Aninal Planet, Discovery Channel (extensions include Discovery History, Discovery Home & Health, Discovery Real Time, Discovery Science, Discovery World, etc), DMAX, Eurosport, Quest, TLC	200	50+	436	620 (plus 651 for Eurosport)
Viacom International Media Networks	14/BET, Comedy Central, Game One, MTV, Nick Jr., Nickelodeon, Nicktoons, Paramount Comedy, Paramount Channel, TMF, VH1, VIVA	210	50+	387	749
Disney Media Networks	5/Disney Channel, Disney Cinemagic, Disney Junior, Disney XD	98	23	100+	491
Fox International Channels	16/FOX (extensions include FOX Life, FOX Crime, FOX Movies, FOX Sports, etc.), Star Movies, National	94	50+	178	420

	Geographic Channel				
Turner Broadcasting System (A Time Warner company)	11/Boing, Boomerang, Cartoon Network, Showtime, Silver, Star!, TVM, TNT	40	20+	100	396
Universal Networks International	8/13th Street, Diva Universal, E! Entertainment, Golf Channel, Style Network, Syfy, Universal Channel	63	17	50+	330
Chellomedia	48/Bio., Canal Panda, CBS Action, CBS Drama, CBS Europa, CBS Reality, Cosmopolitan TV, Extreme Sports Channel, MGM, Reality TV		50+		254
BBC Worldwide	3/BBC Entertainment, BBC Lifestyle, BBC Knowledge,	123	10	173 (worldwide figure)	170
Sony Pictures Television Networks	3/Animax, AXN (extensions include AXN Crime, AXN Mystery, AXN Sci-Fi, etc.), Sony Entertainment Television	66	50+		138
A&E Television Networks	3/H2, History, Lifetime	68	23	38	111

Sources: company sources; Digital TV research, 2013; EAO, 2015, M&M Global, 2013.
Notes: All Mobile, +1 and duplicating HD channels excluded. Brand extensions only counted as distinct brands when justified with positioning and programming. Territories coincide with national boundaries insofar as one language is spoken in that country. When distinct linguistic markets exist, as in Belgium or Switzerland, the practice is to count them as separate territories.

As a result, transnational TV networks count among TV's most prestigious brands and can be found on every cable and satellite platform across Europe. Taken together, the ten leading international channel operators earned US$ 4.3 billion in advertising and carriage fees income in Europe alone in 2013, and are predicted to generate US$ 5.5 billion by 2018 (Digital TV Research, 2013: 1-2). All these players continue to aggressively expand their networks, and the sector even welcomes newcomers: Scripps Networks Interactive, for instance, now operates two brands (Food Network and Travel Channel) and 50 channels across 21 European territories.

There are many entertainment platforms in Europe that operate in a single country (EAO, 2014: 19), but many are internationalizing fast as they are supported by an Internet infrastructure that is global in scope. Platforms have three options to cross borders:

- Video-sharing sites are accessible worldwide since they own the world rights of the content they offer, much of it being user-generated (EAO, 2014: 15).
- Services with more exclusive content such as MCNs tend to be universally available but use geo-blocking in order to prevent users, based on their location, from accessing certain content. This practice enables them to offer specific content in targeted territories and/or block content for which they do not own the worldwide rights (EAO, 2014: 15).
- TVoD and SVoD platforms with high-end programming such as drama have to clear the rights before being able to roll in a new territory. Netflix's strategy is to increase the number of commissions, which enables the SVoD provider to augment the hours of original programming and acquire the global rights at the onset, facilitating its plans to be in 200 territories by 2017 (Webdale, 2015; White, 2015).

The advent of TV formats and TV content production majors

TV content production companies have taken the same international path, taking advantage of the phenomenal growth of the TV format business to expand across borders. From modest origins, TV format trading was worth in excess of €3.0 billion per year by the late 2000s. Formats have become part of the daily diet of broadcasters' schedules: In Europe for instance, a sample of 84 channels aired an average of 338 hours of formats in 2013 (FRAPA, 2009: 8-13; *TBI Formats*, 2014: 23). The majority of top-rating programmes, notably the ubiquitous talent competitions, are formatted. The trade is no longer limited to game shows and reality TV; fiction has caught up, as dramas and comedies have all joined the format revolution and are being re-made across borders (Chalaby, 2015).

The historical evolution of the format trade echoes the development of cross-border channels. The first TV format deals were signed in the early 1950s and the trade plodded along until the end of the century. Formatting remained a marginal activity: a small proportion of shows were adapted, no more than a handful of businesses were involved in the trade, and most formats were game shows that travelled from the USA to a few developed TV markets (Chalaby, 2012a; Moran, 2013).

It began to change in the late 1990s when a combination of factors made the trade explode. In mature markets television was becoming more competitive, and broadcasters welcomed with open arms formulas that had been tested elsewhere that enabled them to de-risk their schedules. It was also the time when the TV industry developed in Central and Eastern Europe, the Middle East, across Asia and Latin America. Fledgling broadcasters quickly realized that their audiences preferred local shows to imported ones, but local programming is a big step up requiring know-how and resources: they would need to rely on concepts that came with a pre-established method of production and guidelines.

Furthermore, new TV genres emerged that provided a rich source of TV formats. All reality and factual entertainment shows come with a clear structure and narrative blocks that are easily identified, described and reproduced. Finally, four shows (*Who Wants to be a Millionaire?*, *Survivor*, *Big Brother* and *Idols*), later known as the four super-formats, swept audiences off their feet and announced TV formats to the world. It is these factors that turned a cottage industry into a multi-billion dollar business, multiplying the number of formats, the number of countries they travelled to and the number of companies that distributed and produced them (Chalaby, 2011, 2015; Moran, 1998). TV formats not only contributed to the expansion of cross-border flows but facilitated the internationalization of production companies.

Formats hold a great advantage for production companies as they enable them to reach scale with a minimum investment. When adaptation rights are sold, the format rights holder receives a licence fee. Production companies, however, have realised that there is more money to be made if they hold on to those rights and produce the format themselves. Although many format licences are still exchanged producers try to adapt their own shows in as many markets as possible, a strategy that has led to their international expansion (Chalaby, 2012b). As a result, there are now eleven global TV content production majors with a footprint that varies between 3 and 30 territories (Table 3).

Thus, the late 1990s marks the moment the TV industry took a global turn. The sudden and *synchronous* growth of cross-border TV channels and formats after years of slow development must be interpreted as the point of internationalization of segments that had formed around distinct value-adding moments and the formation of a chain coordinated on a global scale.

Table 3: The world's eleven TV content production majors, 2015

Company	*Owner/type of company*	*Headquarters*	*Number of production companies/key brands*	*International footprint (number of territories)*
All3Media	Integrated/ Discovery-Liberty Global	London	20/idtv, Lion television, MME Moviement, Studio Lambert, Zoo Production	6
Banijay/Zodiak	Independent	London/Paris	58/Air Productions, Bunim/Murray, Brainpool, Magnolia, Marathon, Nordisk, RDF, Zodiak TV	12
BBC Worldwide	Integrated/BBC	London	/	7
Endemol Shine Group	Independent/Apollo Global management & 21st Century Fox	London	109/19 Entertainment, Endemol Shine UK's group of companies, Sharp Entertainment, Shine Nordics	30
FremantleMedia	Integrated/RTL	London	25/Fremantle, Grundy, UFA	22
ITV Studios	Integrated/ITV	London	18/12 Yard, Gurney	9

			Productions, Silverback, Talpa Media, Thinkfactory Media	
Nice Entertainment Group	Integrated/Modern Times Group	Stockholm	28/DRG, Novemberfilm, Strix,	16
NBC Universal Intl. TV Production	Integrated/NBC Universal	London	5/Carnival Films; Monkey Kingdom	3 (Australia, UK, USA)
Red Arrow Entertainment	Integrated/ ProSiebenSat.1	Munich	13/CPL Productions, Endor Productions, Kinetic, Mob Film	7
Sony Television Production Intl.	Integrated/Sony Pictures Television	London	18/2waytraffic, Silver River Productions	13
Warner Bros. Intl. TV Distribution	Integrated/Time Warner	London	3/Eyeworks, Shed Media; BlazHoffski	17

Source: adapted from Chalaby, 2015: 18.

Conglomeration and international fragmentation of production

Conglomeration is often the by-product of either horizontal consolidation (the merger of two firms operating in the same market) or vertical integration (a firm buying up or down the value chain). Between 1990 and 2014, the average yearly total value of merger and acquisition (M&A) deals has exceeded US$300 billion (Institute of Mergers, Acquisitions and Alliances, 2015). Following a slowdown during the recent recession, deals have shown a sharp rebound to climb to US$308.5 billion in 2014 (Thomson Reuters, 2015: 1). Sectoral M&A activity is in decline for 2015, although thirteen deals worth more than US$1 billion (worth a total of US$115 billion) were announced in the first six months of the year in the USA alone, the largest acquisition being that of Time Warner Cable by Charter Communications for US$ 55.6 billion (PWC, 2015).

Even though it is a trend that is a matter of concern for political economists (e.g. Downing, 2011; Flew, 2012; Mosco, 2009: 158-69), it must be born in mind that while some fusions succeed, others fail (e.g. Vivendi and Universal, AOL and Time Warner). Above all, conglomeration in the media and entertainment industry is taking place in a

context of international fragmentation of production within expanding value chains. Fragmentation can drive consolidation within segments as well as between segments, but can equally lead firms to concentrate on one 'box' and cease activities that straddle several processes. As seen above, the Japanese companies that own TV set brands contract much of the manufacturing to OEMs to focus on design and marketing. Similarly, Time Warner may be reinforcing its position in the TV production segment (Eyeworks being only its most recent acquisition in the sector), but is clearly less interested in aggregation (having spun out Time Warner Cable in 2009).

The formation of the TV content value chain has given an opportunity to many new businesses to flourish and remain independent. Nonetheless, it is an industry clearly marked both by intra-segment conglomeration driven by consolidation, and inter-segment conglomeration pushed by vertical integration. None of the world's largest TV content production groups listed in Table 3 is older than two decades (the oldest, Endemol, was created in 1994) and most have formed in recent years in frantic rounds of mergers and acquisitions. Discounting BBC Worldwide, each brings together an average of 30 production companies. These have also started to merge with one another: Shine, Endemol and the Core Media Group joined forces in 2014, forming a group of 109 companies, followed by Banijay and Zodiak the following year.

Vertical integration is also prevalent and has been driven by media and entertainment groups, which have made 30 acquisitions in the segment in the past three years (Chalaby, 2015: 115-16). Many of the target firms were multi-national companies in their own right, including All3Media (for which Discovery and Liberty Global disbursed US$ 930 million), Eyeworks (acquired by Time Warner), Nice Entertainment (Modern Times Group) or Twofour (ITV). ITV has made twelve acquisitions, spending US$ 532 million on *The*

Voice's Talpa Media alone. Table 3 shows that only two TV content production majors remain independent, one of them being half owned by 21st Century Fox.

The distribution segment has also seen a fair amount of corporate activity and most international distributors are in the hands of TV content production majors today (Table 4).

Table 4: World's leading integrated distribution divisions

Entertainment Group (Production division)	***Distribution Division***
BBC Worldwide (BBC Worldwide Content & Production)	BBC Worldwide Sales & Distribution
21st Century Fox and Core Media (Endemol Shine Group)	Endemol Worldwide Distribution/Shine International
ITV (ITV Studios)	ITV Studios Global Entertainment
Modern Times Group (Nice Entertainment Group)	DRG
ProSieben.Sat1 (Red Arrow Entertainment)	Red Arrow International
RTL (Fremantle Media)	FremantleMedia International

Source: author's compilation

There are five main reasons for a business to seek control of another: to strengthen its position in a territory, increase its share in a particular market segment, acquire new expertise, create scale and/or integrate vertically. Consolidation in the TV industry is often driven by the need to create scale, which brings benefits ranging from synergies to a larger international footprint and better financial capacity (Chalaby, 2012b; Doyle, 2002: 34-7; Owers et al., 2004: 34-43).

Entertainment conglomerates and international broadcasters that acquire firms located downstream in the chain seek to integrate vertically, which often enable them to fulfill

several strategic objectives. For instance, when Time Warner acquired Eyeworks, it strengthened its position in TV content production, expanded its footprint outside its domestic market and developed its expertise and market presence in non-scripted genres.

Vertical integration does not have a direct impact on the chain's input-output structure because integrated companies behave within their segments like independent businesses. Distribution remains a distinct process in the chain and integrated distributors acquire and sell third party programming just like other firms. In order for these divisions to retain credibility in the marketplace (without which independent production companies would not give them content to represent) they need to treat all parties with a degree of fairness and integrity. The same goes for production: none of the newly integrated production firms works as 'captive' organization to their owners: they all operate on the open content market and can supply content to any channel or platform. Should their programmes not find the best home these would under-perform, resulting in a negative commercial impact for all parties involved. In addition, the success of these divisions depends on their ability to retain top creative talent, who would find it unpalatable to supply one sole broadcaster. For instance, it might be ITV's strategic objective to air more of its own content, but in actual terms only a small proportion of ITV Studios' output is suitable for ITV channels.

Internet Disruption

Vertical integration in particular is driven by an exogenous factor: disruption from the Internet. Gereffi argues that the network has the capacity to 'deconstruct' chains because of '(a) its ability to create markets on a scale and with a level of efficiency not previously possible and (b) a radical "pull" business strategy that substitutes information for inventory and ships products only when there is real demand from end customers' (Gereffi, 2001:

1628).

The impact of the Internet is particularly acute on the TV content chain's governance structure as it poses a threat to the dominance of its lead firms, the broadcasters. As seen, a growing number of platforms use Internet infrastructure to aggregate and distribute content in a very cost-efficient manner. Their presence makes content aggregation a more competitive business for traditional content aggregators, which have to compete harder for viewers and IP rights. These platforms not only make the aggregation segment more competitive but also strengthen the position of producers that now have a new breed of buyer acquiring their content: the collective programming budget of SVoD services is expected to rise to US$ 6.8 billion in 2015 (Berman, 2015).

The notion that 'content is king' has never been entirely true since communications infrastructure, marketing and connectivity all play a crucial role (e.g. Odlyzko, 2001). As noted above, a content aggregator that has built an entertainment destination is in a commanding position. It remains that many media firms are moving upstream in order to defend their position and be present in an industry segment that has become very attractive.

Conclusion

The last decades have been transformative for television as technology and globalization have combined to bring rapid change. The new millennium marks the moment when the TV content chain internationalized – as signalled by a sudden and synchronous development of transnational TV channels - and the TV industry began to be coordinated on a global scale. The implications are threefold:

Many scholars argue that the extent of media globalization is exaggerated (e.g. Flew 2007; Mattelart, 2002; Sparks, 2007). Indeed, not all content is ubiquitous and few firms

have a footprint that is truly global. Fears concerning the annihilation of local cultures have been unfounded notably because entertainment conglomerates have proven adept at adapting to audiences (Waisbord, 2004). But the point is that globalization is at once a *structural* reality - television is globalizing because value-adding sequences have become international - and a *structuring* reality – firms' decisions and strategies are coordinated by a value chain that is global in scope.

International fragmentation is prevalent in the TV industry, yet at another level it is being re-integrated through international trade. The advent of TV formats has deepened global media flows because the intellectual property (IP) and know-how that lies within TV shows is travelling alongside ready-made tapes. Even though many broadcasters predominantly operate at national level they have become bound to the global content market as they outsource a growing proportion of their content to international suppliers. Globalization has also changed the nature of production processes in the TV industry: the local version of a format like *Come Dine With Me* involves technical equipment from Japan or Germany, editing software from Australia or the USA, and expertise and IP from the UK. The show may not be produced by the commissioning broadcaster but a company that can be a joint venture between a local producer and the format rights holders. The outcome is an industry that mirrors other industrial sectors: global coordination, transnational production processes, and integration through trade (Kenney, 2004).

In a globalizing world, industrial policy plays a key role in helping domestic firms to compete in value chains (Gereffi and Sturgeon, 2013). In too many countries media regulation is conservative in character and protects lead firms' interests. In Europe, the IP rights framework remains biased in favour of broadcasters, preventing the emergence of a strong production sector. However, vertically integrated national broadcasters, public or

commercial, are ‘zombie’ organizations whose business model is out-of-date that are kept alive by regulatory protection. Most of these are ill-adapted to perform in a globalized market and do not constitute the most efficient way of promoting local culture and industry. For businesses to thrive in a global economy, regulators need to take into account value chains when formulating sectoral policy and adopt measures to facilitate industrial upgrading, as a growing number of emerging economies do (Gereffi and Fernandez-Stark, 2011; Gereffi and Sturgeon, 2013). Broadcasting regulators across Europe could do more to support segments along the supply chain and protect them from lead firms. This would enable these businesses to grow and reach the required size in order to get involved in the TV content global value chain.

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