Digital Platform as a Double-Edged Sword: How to Interpret Cultural Flows in the Platform Era

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This article critically examines the main characteristics of cultural flows in the era of digital platforms. By focusing on the increasing role of digital platforms during the Korean Wave (referring to the rapid growth of local popular culture and its global penetration starting in the late 1990s), it first analyzes whether digital platforms as new outlets for popular culture have changed traditional notions of cultural flows—the forms of the export and import of popular culture mainly from Western countries to non-Western countries. Second, it maps out whether platform-driven cultural flows have resolved existing global imbalances in cultural flows. Third, it analyzes whether digital platforms themselves have intensified disparities between Western and non-Western countries. In other words, it interprets whether digital platforms have deepened asymmetrical power relations between a few Western countries (in particular, the United States) and non-Western countries.

Keywords: digital platforms, cultural flows, globalization, social media, asymmetrical power relations

Cultural flows have been some of the most significant issues in globalization and media studies since the early 20th century. From television programs to films, and from popular music to video games, cultural flows as a form of the export and import of cultural materials have been increasing. Global fans of popular culture used to enjoy films, television programs, and music by either purchasing DVDs and CDs or watching them on traditional media, including television and on the big screen. As the global trade of popular culture has increased, cultural flows have been the subjects of either cultural imperialism—emphasizing a one-way flow, from the West to the East, and in particular from the United States to the rest of the world (Schiller, 1969)—or countercultural imperialism—focusing on the arrival of pluralism and the emergence of local cultural industries (Consalvo, 2006; Straubhhar, 1991; Thussu, 2007).

In the era of digital platforms, the notion of cultural flows has greatly changed due to two major dimensions, which are closely related. On the one hand, several digital platforms, such as social media—including both social networking sites (e.g., Facebook) and user-generated content (e.g., YouTube)—and search engines, have become the new outlets of popular culture. With the rapid growth of digital platforms, global fans are able to enjoy popular culture from other countries on these digital platforms with no

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material possession, nor by going to theaters. As Nowell-Smith (2006) points out, "as we enter the 21st century the scene is changing, increasingly the trade is not in physical goods—long-playing records, cans of celluloid—but in immaterials" (p. 14). Some scholars (Hartley, 2009; Huat & Jung, 2014), therefore, argue that digital platforms have changed the forms of cultural flows. They argue that "newly arisen grassroots-led bottom-up distribution" through digital platforms has played "a significant role in the rapid rise of transnational flows of information, images, sounds, symbols and ideas" (Huat & Jung, 2014, p. 417).

On the other hand, the emergence of digital platforms has taken a role in changing the direction of cultural flows sometimes. In previous decades, traditional media, such as broadcasting and film, were dominated by a handful of Western media conglomerates. Unlike the predigital platform era, when Western countries dominated both production and distribution networks, digital platforms play a key role in distributing popular culture, from non-Western to Western countries:

As a response to the restrictions of traditional media, individuals advocating underrepresented narratives turn to new media sources, sources with on-demand access, interactive user feedback, and real-time generation of new, unregulated content. This new media includes sources such as Twitter, YouTube, blogs, and Facebook. The advent of the new media provides citizens the opportunity to bypass traditional media restrictions and thereby define images of policy issues through unfiltered distribution of alternative policy narratives. (Lybecker, McBeth, Husmann, & Pelikan, 2015, p. 501)

As several cultural forms, including popular music, can be consumed anywhere through digital platforms, the nexus of content and platform has become one of the most significant elements for the popularity of popular culture in the cultural market. Therefore, cultural policy makers, media scholars, and critics may argue that digital platforms resolve global imbalances in cultural flows.

Given the short history of the research on digital platforms (see Gillespie, 2010; Helmond, 2015; Jin, 2015) in tandem with cultural flows, no particular literature on this subject exists. To fill the void, this article critically examines the major characteristics of cultural flows in the era of digital platforms. By focusing on the increasing role of digital platforms in the case of the Korean Wave—referring to the rapid growth of local popular culture and its global penetration starting in the late 1990s (see Jin, 2016)—it first analyzes whether digital platforms as new outlets for popular culture have changed traditional notions of cultural flows—the forms of the export and import of popular culture mainly from Western countries to non-Western countries. Second, it maps out whether platform-driven cultural flows have resolved existing global imbalances in cultural flows. Third, it analyzes whether digital platforms themselves have intensified disparities between Western and non-Western countries. In other words, it interprets whether digital platforms have deepened asymmetrical power relations between a few Western countries (in particular, the United States) and non-Western countries.

The main approach for discussing these issues is political economy, in that it analyzes the nature of cultural flows in the era of digital platforms within a broader cultural-economic context. I combine that approach with in-depth interviews I conducted between February and May 2014 with 35 North Americans (22 women and 13 men) who identified themselves as fans of Korean popular culture. Interviewees were

between ages 19 and 29, and all were students, with the exception of six recent graduates. Twenty-seven interviewees were Canadians and were interviewed on-site in Vancouver; eight interviewees were U.S. residents who were interviewed via Skype. The participants were recruited via snowballing methods as well as advertisements on Korean pop culture-related online communities. I used a semistructured interview to allow participants to express their experiences and opinions beyond my questions. Each interview lasted for one to two hours. I asked the participants questions about how and why they enjoy Korean pop culture and about the ways in which they use social media platforms to engage with Korean pop culture. Furthermore, interviewees were allowed to express their thoughts on the role of social media platforms in the surge of the Korean Wave. This nuanced and converged research method provides a broad understanding of the contemporary cultural flows in the era of digital platforms.

The Emergence of Platform Technologies

The platform has become one of the most emergent technologies of the 2010s. The platform has recently arisen when describing the current use of technology and culture. As several platform technologies have become significant, many groups, from platform designers and owners to platform users and marketers, have shown sincere interest in them. As Keating and Cambrosio (2003) point out, a platform originally referred to a material structure, a "flat form—a plane, more or less elevated surface, be it natural (the top of a small hill) or artificial (the top of a flat building)" (p. 26). However, now the platform is "a new focus for the study of digital media, a set of approaches which investigate the underlying computer systems that support creative work" (Bogost & Montfort, 2009).

In the field of media studies, Joss Hands and Greg Elmer in their conference call title Exploring New Configurations of Network Politics (2011) define platforms as "portals or applications that offer specific Internet services, frameworks for social interaction, or interfaces to access other networked communications and information distribution systems" (para. 1). Therefore, technically, "a platform may refer to a hardware configuration, an operating system, a software framework or any other common entity on which a number of associated components or services run" (Ballon & Heesvelde, 2011, p. 703). This means that platforms allow "code to be written or run" (Gillespie, 2010). In particular, Gillespie emphasizes the major characteristic of digital platforms as intermediaries:

Intermediaries like YouTube and Google, those companies that provide storage, navigation and delivery of the digital content of others, are working to establish a long-term position in a fluctuating economic and cultural terrain. Like publishers, television networks and film studios before them, established companies are protecting their position in the market, while in their shadows, smaller ones are working to shore up their niche positions and anticipate trends in the business of information delivery. (p. 348)

It is crucial to understand that "software draws out and highlights particular features of the platform to the point that they may be approximately defined by their unique relationship to software. This suggests that platforms are strongly mediated and shaped by software" (Apperley & Parikka, 2015, pp. 10–11). Although people associate platforms with their computational meaning (Bodle, 2010), which is an infrastructure that supports the design and use of particular applications or operating systems, the

platform is beyond simply the computations domain (Jin, 2015). The intertwining of the material and metaphorical meanings of the term has been further extended in the contemporary digital media era. As Gillespie (2010) points out, "platform comes to take on more subtle, discursive meanings as a progressive and egalitarian arrangement, promising to support those who stand upon it" (p. 350). This rhetoric, he observes, permeates the marketing of technology giants such as Google and Apple, seemingly imbuing their products with progressive values.

However, as van Dijck (2013) points out, "a platform is a mediator rather than an intermediary, because it shapes the performance of social acts instead of merely facilitating them" (p. 29). In other words:

Platforms are the providers of software, (sometimes) hardware, and services that help code social activities into a computational architecture; they process (meta) data through algorithms and formatted protocols before presenting their interpreted logic in the form of user-friendly interfaces with default settings that reflect the platform owner's strategic choices. (p. 29)

In the context of information technology and computing, then, platforms "take on political, even ideological, connotations: they are no longer passive and transparent infrastructure, but are active, generative, and opaque" (Keating & Cambrosio, 2003, p. 326, cited in Leorke, 2012, p. 259). Montfort and Bogost (2009) state that "a computational platform is not an alien machine, but a cultural artifact that is shaped by values and forces and which expresses views about the world" (p. 148).

Although it was not long ago when people began to witness the emergence of platforms, platform technologies and politics are suddenly ubiquitous in everyday life, and they are deeply woven into contemporary life, politically, economically, culturally, and technologically. With the growth of several digital platforms such as social networking sites (e.g., Facebook and Twitter), on-demand Internet streaming media (e.g., Netflix), and search engines (e.g., Google), these digital platforms have changed and influenced people's daily lives, including their cultural activities (Jin, 2015).

In this article, the notion of platforms mainly implies some of the most significant and relevant technologies, including social networking sites, search engines, and on-demand streaming media. In particular, I consider these digital platforms not only as the new outlets of popular culture but also as the primary drivers of modern capitalism, because both producers and consumers heavily rely on these platforms. On the one hand, as the mediator, digital platforms shape new forms of cultural flows—allowing people to enjoy popular culture with no material passion (not buying CDs and DVDs)—and therefore, cultural consumptions by providing services that help code new cultural activities. On the other hand, digital platforms play a key role for the digital economy, because platform owners who are mega media and technology giants mostly in Western countries, particularly the United States, have developed strategies to appropriate user activities, including fan activities in both consuming and sharing popular culture. Culture cannot be separated from technology—in this case, digital platforms, which become the centers of the contemporary global economy due to their increasing role in capital gains. In other words,

digital platforms in tandem with cultural flows can be understood by accounting for the practices of the users as consumers of popular culture and the role of platform owners and designers as capitalists.

Countercultural Flow in the Era of Globalization

Only a decade ago, cultural flows were mainly available through the transactions of cultural products, such as films, television programs, and music, and popular culture primarily flowed from a handful of Western countries to non-Western countries. Major Hollywood studios and U.S. broadcasters (both network and cable) as well as music studios have continued to penetrate global markets in the early 21st century, as they had done in the late 1990s. From neighboring countries Canada and Mexico to Asian countries, including China after its entry into the World Trade Organization in 2001, many parts of the world have imported U.S. popular culture, symbolizing the one-way flow of Western popular culture.

In fact, the United States has substantially increased its exports of popular culture. As shown in Figure 1, the nation exported as much as \$16.3 billion worth of movies and television programs while importing only \$3.2 billion in 2014, which resulted in \$13.1 billion in net profits for the United States. The net profits have increased annually since the early 1990s, when the country made \$2.4 billion in net profits in 1992 (U.S. Department of Commerce, 2015). The United States has increased its imports of foreign movies and television programs, yet these foreign cultural products are not comparable to U.S.-created cultural products, with very few exceptional cases. The United States has continued to expand its global influences with its own popular culture since the early 20th century, and it will not decrease anytime soon.

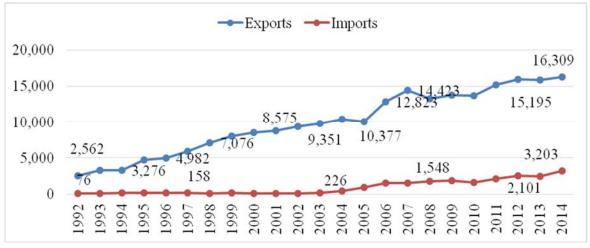


Figure 1. U.S. trade in movies and television programming, 1992–2014 (in millions of dollars).

Source: U.S. Department of Commerce (2008, 2015).

Since the early 1990s, however, popular culture created in a few non-Western countries has gradually penetrated Western markets, as can be seen in the cases of telenovelas from Mexico and Brazil and Bollywood movies from India. Cultural products made in these countries have been popular in Western markets, although they are still limited. In 2014, Brazil and Mexico accounted for 51.1% of imported movies and television programs to the United States, primarily due to high interest in telenovelas (U.S. Department of Commerce, 2015). Several Bollywood movies are also popular in major cities such as New York and Vancouver, partially due to the large numbers of Indian immigrants in these big cities.

Korea, too, has increased its exports of cultural products such as television programs and music since the late 1990s, creating the Korean Wave in the 21st century. As shown in Figure 2, between 2000 and 2014, the value of exports of Korean cultural products, including broadcasting, movies, animation, music, games, characters, and manga, increased by as much as 14.1 times, from \$287.5 million in 2000 to \$4,056 million in 2014 (Korea Creative Content Agency, 2015; Ministry of Culture, Sports and Tourism, 2014). The growth rate has been steep since 2008, when music, video games, and characters started to penetrate both Asian and Western markets at the same time. For example, between 2000 and 2008, exports of music increased only 107%, but between 2008 and 2015, there was a phenomenal increase of 18 times.¹ Although East Asian countries, including Japan and China, are still the largest markets for Korea's cultural products, Korean cultural industries have recently penetrated Western regions as well. In particular, since the latter part of the 2000s, Korean music and video games, including mobile games, have been well received in Western countries (Jin, 2016).

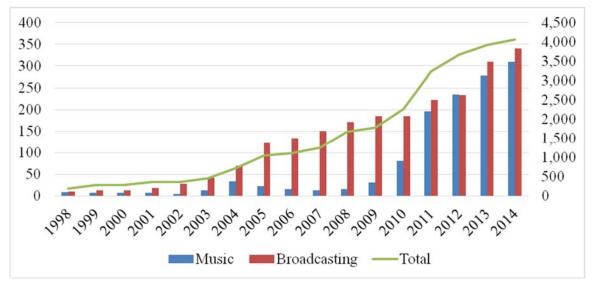


Figure 2. Exports of Korean cultural products, 1998–2014 (in millions of U.S. dollars).

Source: Korea Creative Content Agency (2015); Ministry of

Culture, Sports and Tourism (2012, 2014)

¹ The export of music consists of three major areas: recorded music (sales of music CDs), digital music (online sales), and music events (Ministry of Culture, Sports and Tourism, 2012).

The Increasing Role of Digital Platforms in Cultural Flows

The recent growth of Korean popular culture in global markets has been made possible mainly with the emergence of digital platforms. In the digital era, the music industry has lost ground because music fans do not buy CDs; however, due to the increasing role of social media platforms, including YouTube and Facebook, global fans are able to enjoy music from other countries. K-pop (or Korean pop) is everywhere, including New York, Paris, and Vancouver, and the major outlets are social media (Jin, 2016). As Psy's Gangnam Style became a global sensation in the early 2010s, several Korean musicians and idol groups, including EXO, Girls' Generation, and BTS, have expanded their global presence, and digital platforms, including social media, have certainly become an integral component of the recent Korean Wave. For example, K-pop channels on YouTube have become increasingly popular as YouTube has become a key platform for overseas K-pop audiences. In the 2010s, global K-pop fans also watch Korea's reality television programs, including *Super Star K* and *Running Man* via various digital platforms. K-pop and reality shows are often shared among global youth on social media in the form of short video clips as well (Yoon & Jin, 2016).

When I conducted field research in 2014, the majority of respondents indeed agreed that they access digital platforms to enjoy Korean pop culture. During the early 2000s, when the Korean Wave became popular in Asia, overseas Korean Wave fans made limited use of the Internet, while off-line sharing and purchase of cultural content were common. In comparison, the recent Korean Wave audiences are known for their pervasive reliance on the Internet—and social media in particular (Jung & Shim, 2014; Oh & Lee, 2013; Yoon & Jin, 2016). An interviewee in New York (age 22), for example, explained that fans in North America would never have heard of Korean popular culture if not for YouTube and Twitter as well as Internet websites. She stated that she enjoys Korean culture holistically, not just music and television shows, and digital platforms make K-pop culture much more accessible, and they are also a good way to get news about Korean celebrities and pop culture. Among various digital platforms, global fans of Korean popular culture primarily use user-generated content sites and/or social networking sites, which means that social media platforms seem to have contributed to the spread of K-pop and reality TV programs, among other Korean pop culture genres.

The distinctive characteristics of digital platforms that expedite the sharing of content and information are also observed in a wide range of streaming or file-sharing sites. As Yoon and Jin (2016) note:

Popular online streaming and translation sites, such as ViKi, offer not only the latest Korean media content and subtitles but also online discussions among users. Social media's features seemed to be extended to a wider range of online sites and user behaviors. (p. 74)

A Chinese student (age 21) who studies in Canada stated that he found Korean popular genres through platforms, such as YouTube and Chinese Web search engine Baidu, and explained that digital platforms definitely change the way people enjoy the content. He said that his mother is a big fan of the Korean Wave, and she now enjoys Korean television programs on social media and on-demand streaming service platforms:

When I was in elementary school and early middle school, my mother loved to watch Korean drama like *Full House* and *Jewel in the Palace* on television. At that time not many families owned a personal computer and the social media technology was not that advanced. Thus, she always complained that it was sometimes just impractical for her to wait for the drama every day in front of the TV at a particular time, as she may have something else to do and as a consequence, she would unfortunately miss out on the drama. However, with the upsurge of digital technologies and development of social media, she is now able to watch the drama at the favorable time based on her own schedules and preferences.

Another student in Canada (age 24) who enjoys several Korean popular cultural forms, including television programs and music, said,

I use digital platforms, such as Google, Facebook, and YouTube, every day in order to find Korean popular culture. I stumbled upon Korean songs on YouTube through various situations. For example, when I watched *Full House*, I learned that one of the characters, Rain, is also a well-known pop singer. This all happened around 2005. It snowballed into something larger as YouTube expanded and Korean music videos flourished. Exploration led one thing to another, and I was hooked.

These interviewees clearly indicate that their exploration of transnational culture—in this case, Korean popular culture—relies particularly on digital platform use. An interviewee from Hong Kong studying in Canada (age 22) explains that she is always exposed to K-pop because her friends on Facebook or those she follows on Tumblr post K-pop content or things related to Korean celebrities. She stated that digital platforms changed her way of enjoying local popular culture, because they are much more convenient and easy to access. Content is constantly being pushed toward her rather than her having to actively seek it out. Because of social media, she can enjoy only the most popular content that has been sifted through by the fans. In fact, the most noteworthy part of the current *Hallyu* (the Korean term for the Korean Wave) trend is the swift advance of digital platforms and their influence in the realm of local cultural products, because fans access digital platforms to enjoy popular culture (Jin, 2016). Because of YouTube, foreign content is readily available to U.S. viewers (Flatley, 2012). K-pop video clips were viewed nearly 2.3 billion times in 235 countries in 2011—a threefold increase since 2010 (Naidu-Ghelani, 2012).

This new trend is contingent ono a high penetration of digital platforms through which popular culture flows easily. Due to the increasing role of digital platforms as new outlets, some media scholars argue that platforms change the traditional notion of cultural imperialism, emphasizing the one-way flow of cultural products from the West. Indeed, digital platforms have substantially contributed to the popularity of local culture in Western countries. Fans of popular culture in North America and Western Europe have shifted their consumption habits and rely heavily on digital platforms. Of course, this does not mean that the direction of cultural flow has permanently changed from a one-way flow to a two-way flow. While fans in Western countries enjoy local popular culture through digital platforms, fans in non-Western countries have also enjoyed Western popular culture through these digital platforms, including in

Asia and Latin America. We need to carefully interpret the role of digital platforms in the process of cultural flows.

According to Kang, Shin, Wu, Yang, and Bai (2013), for example, many Chinese people enjoy television dramas not only from Korea and other Asian countries but also from the United States, because they are able to watch these dramas on Sohu, which is the largest Internet portal in China. More specifically, in an analysis of the consumption habits of Chinese people, Kang et al. (2013) found that most of them (47.6%) enjoyed U.S. dramas, although the data were limited to Sohu, not traditional media. As Google acquired YouTube, Alibaba acquired Youku Tudou Inc.—the YouTube equivalent in China—in November 2015:

Alibaba, China's biggest online shopping company decided to buy Youku because full ownership of Youku helps Jack Ma, the founder and executive chairman of Alibaba, deliver U.S. films and drama series to more than a third of China's population as Alibaba competes with Baidu Inc. and Tencent Holdings Ltd. for the attention of Internet users. The deal comes after he toured Hollywood to meet with studio executives, took control of a Chinese movie studio and invested in the latest Mission: Impossible film. (Chen & Katz, 2015, para. 3)

"The rise of Internet video is really undeniable around the world," so Alibaba's move into digital media makes a lot of sense. "More than 461 million people in China consumed video online as of June 2015, with 354 million users accessing video from mobile phones" (para. 6). Youku has "a lot of customer engagement," and Alibaba expects that Chinese people will buy more content and they will buy "more-content-delivery platforms" (Chen & Katz, 2015, para. 9).

Korean youth also prefer enjoying popular culture, including television dramas and music, on digital platforms to traditional media, given their busy schedules and Korea's urban setting. Many people commute more than one hour via subway and bus, which gives them the opportunity to use social media on their smartphones to enjoy both foreign and domestic popular culture. Many people enjoy U.S. television programs, from dramas such as *Game of Thrones, Prison Break, Lost,* and *CSI* to reality shows such as *American Idol* and *The Voice*. Although these programs are aired on cable channels, many fans enjoy them on digital platforms, including smartphones after downloading applications (Choi, 2013). This means that the increasing role of digital platforms as new outlets is for not only Westerners but also non-Westerners. In other words, the use of digital platforms is for everyone, including popular culture creators and consumers. Digital platforms certainly provide a great opportunity for cultural industries corporations in non-Western countries to penetrate the West. However, cultural producers in Western countries have also used digital platforms to expand their influence in non-Western countries; therefore, local fans of Western popular culture also enjoy Western popular culture through digital platforms.

It is crucial to understand that digital platforms act not only as new outlets, but as new commodities that Western interests—in particular, U.S.-based digital platforms—dominate (see Jin, 2015). The United States has continued to expand its dominant role in the global markets as several new local markets, including China and Korea, have increased their import of U.S. cultural products. Although

several non-Western countries, including Korea, have increased their global presence in the era of digital platforms, cultural consumption through digital platforms in Western regions does not directly relate to capital gains because non-Western cultures do not capitalize much. It is reasonable to argue that the role of digital platforms as new outlets for popular culture has not been directly related to the capitalization of these digital platforms for local cultural industries corporations. In addition, Korean cultural products in the United States as a form of audiovisual and related products are still marginal regardless of the fact that many fans in North America enjoy local popular culture on social networking sites as well as user-generated content.

In fact, in 2014, the United States imported only \$39 million worth of audiovisual and related products, including movies and television programs, as well as books and live events, while it exported \$287 million worth of movies and television programs to Korea. The entire audiovisual and related products sector, including movies and television programs, books and sound recordings, and broadcasting and recording of live events, shows the same result. During the period 2006–2014, the United States increased its exports of audiovisual-related products to Korea from \$207 million in 2006 to \$307 million in 2014, while it increased its imports from \$11 million to \$39 million (U.S. Department of Commerce, 2015). Although Korea increased its exports to the United States in 2011, the value of these exports was only \$15 million, which means that it has just started to increase its exports of audiovisual-related products since 2012, when Psy suddenly hit the Western market (see Table 1). U.S. imports of these cultural products from other non-Western countries are also still very limited (e.g., only \$1 million from the Middle East, less than \$1 million from Africa, and \$92 million from Asia and the Pacific) (U.S. Department of Commerce, 2015).

These empirical data, both the traditional form of cultural flows through global trade and the new form of cultural flows through digital platforms, explain that a few non-Western countries are potentially able to benefit from the development of digital platforms. However, again, digital platforms are not only for non-Western cultural products but also for Western cultures as well, because many fans in non-Western countries enjoy U.S. popular culture. As Gillespie (2010) points out, digital platforms "afford an opportunity to communicate, interact, or sell" (p. 351); however, since it is only the beginning stage of digital platforms in the cultural market, non-Western countries, as in the case of the Korean Wave in the United States, are not yet able to capitalize the boom of local popular culture via digital platforms.

Table 1. Trade of Audiovisual and Related Materials Between Korea and the United States (in Millions of Dollars).

	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Exports	207	265	177	170	210	173	251	302	307	•
Imports	11	3	9	6	5	15		34	39	

Note. Data are from U.S. Department of Commerce (2015), including data on U.S. trade in audio-visual and related products (movies and TV programs, books and sound Recording; and broadcasting and recording of live events).

U.S. Digital Platforms' Dominance as New Outlets in Cultural Flows

Another important issue in terms of the role of digital platforms as new outlets is that digital platforms are mostly developed and owned by U.S. platforms. Several U.S.-based digital platforms, such as YouTube, Google, and Facebook, as outlets of popular culture, have increased their global influence. Among these, user-generated content platforms, such as YouTube and Hulu, in the realm of cultural flows have become among the most significant online video services, both nationally and globally. YouTube, which was created in 2004, has rapidly grown and changed people's popular culture consumption habits. Until a little more than a decade ago, most entertainment used to come in straightforward single-media formats. Once sound and text were added to moving images, the multimedia format was born, something that 21st-century technology took to a whole new level. Due to decreases in costs and an unprecedented global penetration of multimedia devices, the consumption of video content has reached never-before-seen levels. The popularization of mobile technologies in the past decade and the availability of smartphones have made it possible for everyone to enjoy multimedia content (Statista, 2015).

In the United States alone, although the TV set is still the most significant outlet for people to enjoy popular culture, Internet consumption of multimedia content is constantly increasing, and the number of online video viewers was estimated at about 204 million in 2015 and is forecasted to increase to almost 220 million in only three years. Furthermore, the number of Americans who use their mobile devices to watch videos was estimated at around 101 million in 2015. YouTube is by far America's most successful video platform on the Internet, leaving behind popular services such as Netflix, Hulu, and Vimeo (Statista, 2015). As shown in Figure 3, based on market share of visits, among leading multimedia websites in the United States in October 2015, YouTube is the leader with a market share of 73.6%, followed by Netflix (9%), Hulu (2.6%), and Daily Motion (1.2%).

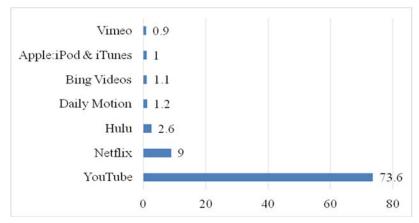


Figure 3. Leading multimedia websites in the United States by percentage of market share (at the X axis) in October 2015. Source: Statista (2015).

Globally, according to comScore's (2011) first release of global data from its Video Metrix Service in December 2011, YouTube was the leader as well. As of October 2011, YouTube delivered almost 44% of the 201 billion videos viewed globally—nearly 20 times as many as China's Youku, which was in second place with 2.3%. Vevo (1.8%), Facebook (1.3%), and Japan-based Dwango Co (1.2%) followed. When YouTube delivered 88.3 billion videos globally in October 2011, only about 21 billion of those were from the United States, which means that more than 76% of its viewership was international. So, as important as YouTube's efforts to monetize its massive traffic in the United States are, it looks as though there might be three times as much opportunity internationally (comScore, 2011).²

Google revenues by geography certainly show the increasing role of global users. The growth in revenues from the rest of the world increased from 54% in 2012 to 57% in 2014, which resulted largely from increased acceptance of Google's advertising programs and its continued progress in developing localized versions of Google's products for international markets (Google, 2014, p. 26). Google accounted for 89.2% of the worldwide market share in October 2015 (Statista, 2016), although it could not be a major player in several countries, because they have advanced their own local search engines. It is certain that only a few countries are able to develop their own search engines to compete with U.S.-based Google and other search engines.

Meanwhile, Facebook, which was founded in the United States in 2004, as one of the most profitable platforms, also plays a key role in the global platform markets. Mark Zuckerberg identified Facebook as a platform when he introduced Facebook Platform in 2007. From its inception, Zuckerberg wanted and planned to turn Thefacebook (Facebook's original name) into a platform, which means that he wanted his nascent service to be a place where others could deploy software (Kirkpatrick, 2010). Creating a platform enables "a software company to become the nexus of an ecosystem of partners that are dependent on its product" (Kirkpatrick, 2010, p. 218). Then Zuckerberg unveiled Facebook Platform, calling on all developers to build the next generation of applications with deep integration into Facebook, distribution across its "social graph," and an opportunity to build new businesses (Facebook, 2007; Helmond, 2015). Zuckerberg stated that, "until now, social networks have been closed platforms. Today, we're going to end that" (Facebook, 2007, para. 2). Zuckerberg also said that "with this evolution of Facebook Platform, any developer worldwide can build full social applications on top of the social graph, inside of Facebook."

Facebook Platform launched with more than 65 developer partners and 85 applications

² Although Google did not break down its revenues, *The Wall Street Journal* estimated that YouTube's revenues in 2014 were \$4 billion, up from \$3 billion a year earlier, accounting for about 6% of Google's overall sales during the same year (Google, 2014; Winkler, 2015). This does not mean that YouTube made a huge profit, because after paying for content, YouTube's bottom line is roughly break-even (Winkler, 2015). Because of YouTube's popularity, industries have shown a deep interest in monetizing it. Since being purchased by Google in 2006, YouTube has adopted a new e-commerce model; it puts banner ads in videos or in YouTube pages and shares the revenue with the copyright holders of the videos (Kim, 2012). Based on the number of views that the video receives, the ad revenue is split between the service provider (YouTube) and the content provider (copyright owners) (Stelter, 2008, cited in Kim, 2012).

and with the introduction of an example application called Video. Video allowed for the simple sharing of personal videos between friends within Facebook, as well as the creation and sending of video messages directly to and from the Facebook Inbox. To allow users to better share the increasing amount of video being shot from mobile devices, Video supports mobile uploading of video directly into the application. (Facebook, 2007)³

Facebook has swiftly expanded its global dominance. According to the World Map of Social Networks, showing the most popular social networking sites by country, Facebook is the market leader in 129 countries of 137 analyzed (94.1%) as of August 2015, up from 78% in December 2009 (Vincos Blog, 2015). Although several local-based social networking sites, such as Mixi (Japan), KaKao Talk (Korea), and QQ (China), as well as VK (Russia), compete with U.S.-based social networking sites, Facebook has become the leader of interactive, participant-based online media, based on user-generated content that create commercial values (Hoegg, Martignoni, Meckel, & Stanoevska-Slabeva, 2006, p. 1; Jin, 2015; O'Reilly, 2005).

The clashes for hegemony between U.S.-based digital platforms and local-based digital platforms have been apparent, and dominant players are YouTube and Facebook in the global market. ⁴ Consequently, digital platforms function as some of the most significant tools for capital accumulation for a handful of owners located in the United States. YouTube, Google, and Facebook have especially increased their profits from foreign countries. In the early 21st century, with the increasing role of digital platforms, a new form of imperialism—platform imperialism—is evolving under the single hegemony of the United States (Jin, 2015, pp. 11–12). As Cunningham and Silver (2015) point out:

There is now evidence that firms that have long dominated the mass media may now face the most serious challenge in their history. The challenges are outsiders, most of which are much larger companies with far larger resources, employing IT industry business models. Google/YouTube, Apple's iTunes, and Facebook are Internet pure-play

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³ Mark Zuckerberg wanted to develop Facebook as a platform, and he has continued to develop his vision. For example, in December 2009, Facebook presented its members with a new default privacy setting. For most people, the new suggested settings would open their Facebook updates and information to the entire world. Just as Facebook turned friends into a commodity, it has likewise gathered people's personal data—their updates, their baby photos, their endless chirping birthday notes—and readied them to be bundled and sold (Angwin, 2009). Facebook was also "one of the leading organizations in the world developing facial-recognition algorithms. Facebook software can now identify people in photographs as well as people can. Facebook's DeepFace can tell whether the subjects in two different photographs are the same with 97% accuracy" (Elgan, 2015).

⁴ Netflix, the world's leading Internet network service firm, made its debut in Korea in January 2016. Within a few months of its launch, Netflix substantially influenced the Korean content market, because new U.S.-made content is being serviced directly only through Netflix. For example, stand-up comedies (which are somewhat unfamiliar to Korean audiences), documentaries of diverse formats, and well-made comedy dramas are garnering considerable attention (Korean Film Council, 2016, p. 36).

companies that already had or have been able to develop a critical mass of online customers and possess extensive data on their past online search behavior and purchasing habits. [In addition] they have years of experience marketing directly to their customer base, targeting those most likely interested in a particular genre or program based on web analytics of each individual's past behavior and any product feedback that they may have provided. The threat to the incumbents posed by Google's video platform YouTube, by the Amazon/LoveFilm platforms, and by Netflix, is real and present. (pp. 150–151)

Digital platforms suggest a progressive and egalitarian arrangement, promising to support those who stand upon them in the contemporary global society (Gillespie, 2010). However, digital platforms are crucial for people's everyday cultural flows and capitalism, and global flows of culture and technology combined have been arguably lopsided. Platforms have functioned as a new form of distributor and producer that the United States dominates, and U.S. dominance has continued in the digital platform era (Jin, 2015). As Robin Mansell (2015) aptly puts it:

A citizen's search activities may result in referrals to content properties through a variety of intermediary sharing arrangements that support targeted marketing and cross-selling. The platform owner's interest is in aggregating content and shaping traffic flows ultimately to achieve profits and to command high visibility in the media marketplace ecology. (p. 20)

Digital platforms have become the new outlets of popular culture, which make two-way flows in popular culture possible; however, as they have commercialized, digital platforms also have become new capital resources for U.S.-based digital platform designers and owners. This magnitude could not be anticipated several decades ago when the United States massively penetrated non-Western cultural markets, because U.S.-based digital platforms control the majority of the global markets.

Discussion and Conclusion

This article has examined the nature of digital platforms, analyzing their dual aspects in tandem with cultural flows. As digital platforms such as social networking sites and user-generated content have become new outlets for popular culture, fans in many countries enjoy contemporary popular culture on these platforms—a phenomenon not seen a decade ago. Due to the increasing role of digital platforms, cultural producers and corporations as well as cultural policy makers have been keenly focused on the role of digital platforms, which might resolve the asymmetrical cultural flows between Western and non-Western countries.

Digital platforms play a key role in disseminating popular culture created in non-Western countries, as indicated in the case of the Korean Wave, primarily because fans in Western countries have shifted their consumption behavior from traditional media to digital platforms. Instead of purchasing cultural materials, such as CDs and DVDs, they enjoy local popular culture on digital platforms, which have certainly contributed to the growth of the global fame of local popular culture. Since people in

Western countries cannot enjoy local popular culture without YouTube and Facebook, digital platforms have resolved the asymmetrical cultural flows—at least partially, if not entirely. They have expanded their dominance in the name of mergers and acquisitions, which eventually destroy local-based digital platforms. In other words, due to the rapid growth and use of these digital platforms, people around the world are able to enjoy both Western and non-Western popular cultures anywhere. Several media scholars, therefore, argue that digital platforms resolve global imbalances in cultural flows.

However, non-Western countries have also increased their exposure to Western cultural products through digital platforms as well as traditional media. Local fans of Western popular culture have used U.S.-based digital platforms to enjoy Western popular culture as well as local popular culture. This implies that digital platforms function as a double-edged sword that eventually intensifies the asymmetrical power relationship between Western and non-Western countries. At a glance, "the massive switch to the digital economy has provided a surplus for several emerging powers, including China, India, and Korea with which to challenge the longer-term U.S. dominance, unlike the old notion of imperialism developed by Lenin" (Boyd-Barrett, 2006, p. 24). These countries have presumably developed their own social networking sites and search engines and presumably compete with Western countries, and they are supposed to build a new global order with their advanced digital technologies.

Admitting to the significant role of digital platforms in the realm of cultural flows, it is critical to understand that digital platforms have also played a role in intensifying the dominance of Western countries, because only a handful of Western countries—in particular, the United States—can develop digital platforms and make them globally popular platforms. Although a few non-Western countries, such as Korea and China, have developed their own digital platforms, these platforms are mainly popular only within their own geographical territory and their diaspora. Even so, the majority of non-Western countries are not able to develop digital platforms comparable to U.S.-based digital platforms. Consequently, the number of countries to adopt Facebook and YouTube as their major digital technologies has substantially increased. In addition, digital platforms themselves are a main part of contemporary capitalism, which the West controls in two ways. As U.S.-based digital platforms penetrate non-Western countries, they garner profits from these countries in the form of advertising.

There are doubts as to whether non-Western platform corporations have reorganized the global flow and constructed a balance between the West and the East, because most of the world's countries have adopted U.S.-based platforms, resulting in the construction of platform imperialism. In the era of platforms, the United States has not been a sole player in the platform business; however, its dominance in global markets has not been contested (Jin, 2015). As a matter of fact, in history, there have been no other comparable cultural products and technologies through which the United States has become such a dominant power. In the realm of culture, many countries have developed their own popular cultures and exported them to mainly neighboring countries. The era of platforms has shown an increasing international hierarchy mainly because U.S.-based platforms are dominating the world, and the degree of the influence has not been seen in other fields or industries due to the increasing role of a few platforms invented in the United States.

The U.S.-based digital platforms have undoubtedly been the most active and significant in the global markets. In other words, the United States alone has intensified its monopolistic hegemony in the realm of platforms, which has not been seen in other areas. Platforms have functioned as a new form of distributor and producer that the United States dominates. In the 21st century, the world has become further divided into a handful of Western states—in particular, the United States—which have developed platforms, and a vast majority of non-Western states, which do not have advanced platforms. "Platforms can be situated within more general capitalist processes that follow familiar patterns of asymmetrical power relations between the West and the East" (Jin, 2015, p. 69). There is no doubt that in the age of digital platforms, people still live in the imperialist era, as culture and digital platforms converge.

References

- Angwin, J. (2009, December 15). How Facebook is making friending obsolete. *The Wall Street Journal*. Retrieved from http://www.wsj.com/articles/SB126084637203791583
- Apperley, T., & Parikka, J. (2015). Platform studies' epistemic threshold. *Games and Culture*. Advance online publication. Retrived from http://journals.sagepub.com/doi/abs/ 10.1177/1555412015616509
- Ballon, P., & Heesvelde, E. V. (2011). ICT platforms and regulatory concerns in Europe. *Telecommunications Policy*, *35*, 702–714.
- Bodle, R. (2010). Assessing social network sites as international platforms. *Journal of International Communication*, 16(2), 9–24.
- Bogost, I., & Montfort, N. (2009). Platform studies: Frequently asked questions. *Proceedings of the Digital Arts and Culture Conference*, 2009. Retrieved from http://escholarship.org/uc/item/01r0k9br
- Boyd-Barrett, O. (2006). Cyberspace, globalization and empire. *Global Media and Communication*, *2*(1), 21–41.
- Chen, L., & Katz, L. (2015, November 6). Alibaba buys Youku in deal said to be valued at \$4.8 billion.

 Bloomberg Business. Retrieved from http://www.bloomberg.com/news/articles/2015-1106/alibaba-agrees-to-buy-video-site-youku-tudou-for-27-60-a-share
- Choi, J. A. (2013, May 26). 안방극장, 성인들을 위한 19 금 미드인기몰이 [Home theaters: American dramas are getting popular among adults over 19). *Sports World*. Retrieved from http://news.zum.com/articles/7063659
- ComScore. (2011, December 14). *More than 200 billion online videos viewed globally in October* (Press release). Retrieved from http://www.comscore.com/Insights/Press-Releases/2011/12/More-than-200-Billion-Online-Videos-Viewed-Globally-in-October?cs_edgescape_cc=US

- Consalvo, M. (2006). Console video games and global corporations: Creating a hybrid culture. *New Media & Society*, 8(1), 117–137.
- Cunningham, S., & Silver, J. (2015). Studying change in popular culture. In T. Miller (Ed.), *The Routledge companion to global popular culture* (pp. 149–158). London, UK: Routledge.
- Elgan, M. (2015, June 29). Is facial recognition a threat on Facebook and Google? *Computerworld*. Retrieved from http://www.computerworld.com/article/2941415/data-privacy/is-facial-recognition-a-threat-on-facebook-and-google.html
- Exploring New Configurations of Network Politics. (2011). *Platform politics, call for papers*. Retrieved from http://commlist.org/archive/calls/2010-all/msg00655.html
- Facebook. (2007, May 24). Facebook unveils platform for developers of social applications. *Facebook Newsroom*. Retrieved from http://newsroom.fb.com/news/2007/05/facebook-unveils-platform-for-developers-of-social-applications/
- Flatley, J. (2012, November 19). K-pop takes America: How South Korea's music machine is conquering the world. *Verge*. Retrieved from https://www.theverge.com/2012/10/18/3516562/k-pop-invades-america-south-korea-pop-music-factory
- Gillespie, T. (2010). The politics of platforms. New Media & Society, 12(3), 347-364.
- Google. (2014, December 31). *Annual report pursuant to Section 13 of the Securities Exchange Act of 1934*. Washington, DC: U.S. Securities and Exchange Commission.
- Hartley, J. (2009). Uses of YouTube: Digital literacy and the growth of knowledge. In J. Burgess & J. Green (Eds.), *YouTube: Online video and participatory culture* (pp. 126–143). Cambridge, UK: Polity Press.
- Helmond, A. (2015). The platformization of the Web: Making Web data platform ready. *Social Media + Society, 1*(2). Retrieved from http://journals.sagepub.com/doi/full/10.1177/2056305115603080
- Hoegg, R., Martignoni, R., Meckel, M., & Stanoevska-Slabeva, K. (2006). Overview of business models for Web 2.0 communities. Proceedings of GeNeMe 2006. September 28–29, 2006. Dresden, Germany. Retrieved from http://www.qucosa.de/fileadmin/data/qucosa/documents/ 13969/GeNeMe2006_033-049.pdf
- Huat, C. B., & Jung, S. (2014). Social media and cross-border cultural transmissions in Asia: States, industries, audiences. *International Journal of Cultural Studies*, *17*(5), 417–422.
- Jin, D. Y. (2015). Digital platforms, imperialism and political culture. London, UK: Routledge.

- Jin, D. Y. (2016). *New Korean wave: Transnational cultural power in the age of social media*. Urbana, IL: University of Illinois Press.
- Jung, S., & Shim, D. (2014). Social distribution: K-pop fan practices in Indonesia and the "Gangnam Style" phenomenon. *International Journal of Cultural Studies*, *17*(5), 485–501.
- Kang, M. K., Shin, H. S., Wu, C., Yang, S. Y., & Bai, W. (2013). The map of drama tastes of Chinese television viewers. *Broadcasting Culture Research*, *25*(1), 197–233.
- Keating, P., & Cambrosio, A. (2003). *Biomedical platforms: Reading the normal and the pathological in late-twentieth century medicine*. Cambridge, MA: MIT Press.
- Kim, J. (2012). The institutionalization of YouTube: From user-generated content to professionally generated content. *Media, Culture & Society, 34*(1), 53–67.
- Kirkpatrick, D. (2010). *The Facebook effect: The inside story of the company.* New York, NY: Simon & Schuster.
- Korea Creative Content Agency. (2015). 2015 content white paper. Naju, South Korea: Author.
- Korean Film Council. (2016). The impact of Netflix on the Korean content market. *Korean Cinema Today*, *25*, 36.
- Leorke, D. (2012). Rebranding the platform: The limitations of platform studies. *Digital Culture and Education*, *4*(3), 257–268.
- Lybecker, D., McBeth, M. K., Husmann, M. A., & Pelikan, N. (2015). Do new media support new policy narratives? The social construction of the U.S.–Mexico border on YouTube. *Policy and Internet*, 7(4), 497–525.
- Mansell, R. (2015). Platforms of power. Intermedia, 43(1), 20-24.
- Ministry of Culture, Sports and Tourism. (2012). 2011 content industry statistics. Seoul, Korea: Author.
- Ministry of Culture, Sports and Tourism. (2014). *2013 contents industry whitepaper*. Seoul, Korea: Author.
- Montfort, N., & Bogost, I. (2009). *Racing the beam: The Atari video game system.* Cambridge, MA: MIT Press.
- Naidu-Ghelani, R. (2012, July 16). Move over Bieber—Korean pop music goes global. *CNBC*. Retrieved from https://www.cnbc.com/id/48157880

- Nowell-Smith, G. (2006). Trade wars, culture wars. In G. Harvey (Ed.), *Trading culture: Global traffic and local cultures in film and television* (pp.13–19). New Barnet, UK: John Libbey.
- Oh, I., & Lee, H.-G. (2013). Mass media technologies and popular music genres: K-pop and YouTube. *Korea Journal*, *53*(4), 34–58.
- O'Reilly, T. (2005). What is Web 2.0. Retrieved from http://oreilly.com/web2/archive/what-is-web-20.html
- Schiller, H. (1969). Mass communications and American empire. Oxford, UK: Westview Press.
- Statista. (2015). Leading multimedia websites in the United States in October 2015, based on market share of visits. Retrieved from http://www.statista.com/statistics/266201/us-market-share-of-leading-internet-video-portals/
- Statista. (2016). Worldwide market share of leading search engines from January 2010 to October 2015. Retrieved from http://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/
- Straubhaar, J. (1991). Beyond media imperialism: Asymmetrical interdependence and cultural proximity. *Critical Studies in Mass Communication*, *8*, 39–59.
- Thussu, D. (Ed.). (2007). Media on the move: Global flow and contra-flow. London, UK: Routledge.
- U.S. Department of Commerce. (2008, October). Survey of current business. Washington, DC: Author.
- U.S. Department of Commerce. (2015). *U.S. trade in services*. Washington, DC: Author. Retrieved from http://bea.gov/iTable/iTable.cfm?reqid=62&step=1&isuri=1#reqid=62&step=6&isuri=1&6210=4 &6200=160&6211=168
- van Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. New York, NY: Oxford University Press.
- Vincos Blog. (2015). World map of social networks. Retrieved from http://vincos.it/world-map-of-social-networks/
- Winkler, B. (2015, February 25). YouTube: 1 billion viewers, no profit. *The Wall Street Journal*. Retrieved from https://www.wsj.com/articles/viewers-dont-add-up-to-profit-for-youtube-1424897967
- Yoon, K., & Jin, D. Y. (2016). The mediated filtering of transnational cultural flow: The Korean Wave phenomenon in Canada. *Journal of Intercultural Studies*, *37*(1), 69–81.