

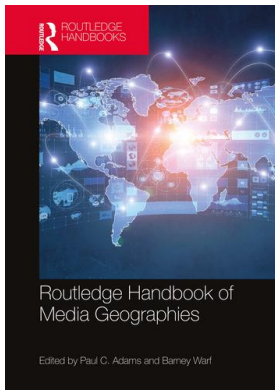
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### Geographical analysis of streaming video's power to unite and divide

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## 11

# GEOGRAPHICAL ANALYSIS OF STREAMING VIDEO'S POWER TO UNITE AND DIVIDE

*Irina Kopteva*

Online presence is a reality for billions of people who look for information, entertainment, shopping, avenues of self-expression, or social connections. China and the United States manage the 15 most popular global sites (Alexa Internet Inc. 2020). Two American sites lead the way: the search engine Google.com and the video sharing platform Youtube.com (YouTube). YouTube's global reach can be characterized by the following (Cooper 2019; YouTube 2020):

- two billion people use it monthly
- one billion hours watched daily
- over 100 countries stream its videos
- 80 languages used in video and interface
- 70% of videos viewed on mobile devices
- 15% of the global traffic comes from the United States
- 81% of 15–25 year-old Americans use YouTube

The list above demonstrates the multifaceted appeal of YouTube, which involves different generations in video production and consumption in numerous languages via multiple technologies. This chapter examines geographical dimensions of the YouTube phenomenon along with other video streaming services. A number of questions arise. What video streaming platforms exist in the world and what functions make the YouTube user experience special? How important is it for consumers to participate in the development and critique of video content? What creates YouTube's distinct culture of freewheeling opinions and like-minded followers? YouTube is widely popular in the United States, Brazil, Russia, Japan, the United Kingdom, Germany, France, Mexico, Turkey and India (Statista Research Department 2016). However, many countries in the world are not free democracies. What challenges do various political states present to local and global video streaming services and associated user experiences? Should streaming video be censored? Youth is exceptionally involved with YouTube. How can education employ this engagement? To address the questions, this chapter will review data and research on the use of video streaming technology across the world. Our geographical analysis reveals that a unique blend of creative

venues, diverse content, search capabilities, and social opportunities create powerful video sharing platforms, which unite and divide across cultural and geographical borders.

## Spatial patterns of video streaming culture

### *The unifying power of video sharing community*

YouTube attracts people at tremendous rates because it publishes user-generated content which facilitates creativity in ordinary people and reaches a diverse audience. New independent celebrities emerge, who do not associate themselves with any TV network and who publish their video commentaries about video games, makeup art, or share their thoughts or experiences on subjects of common interest. Some YouTube stars, also called influencers, have millions of subscribers who post comments on the videos and engage in the conversation with others across the globe. The biggest independent YouTube star, PewDiePie—a Swedish gamer—lives in the United Kingdom and his commentary on video games, viral videos and internet memes attracts 102 million subscribers (Leskin 2020). Figure 11.1 shows the world distribution of major YouTube influencers, whose fan bases vary from 20 to over 100 million.

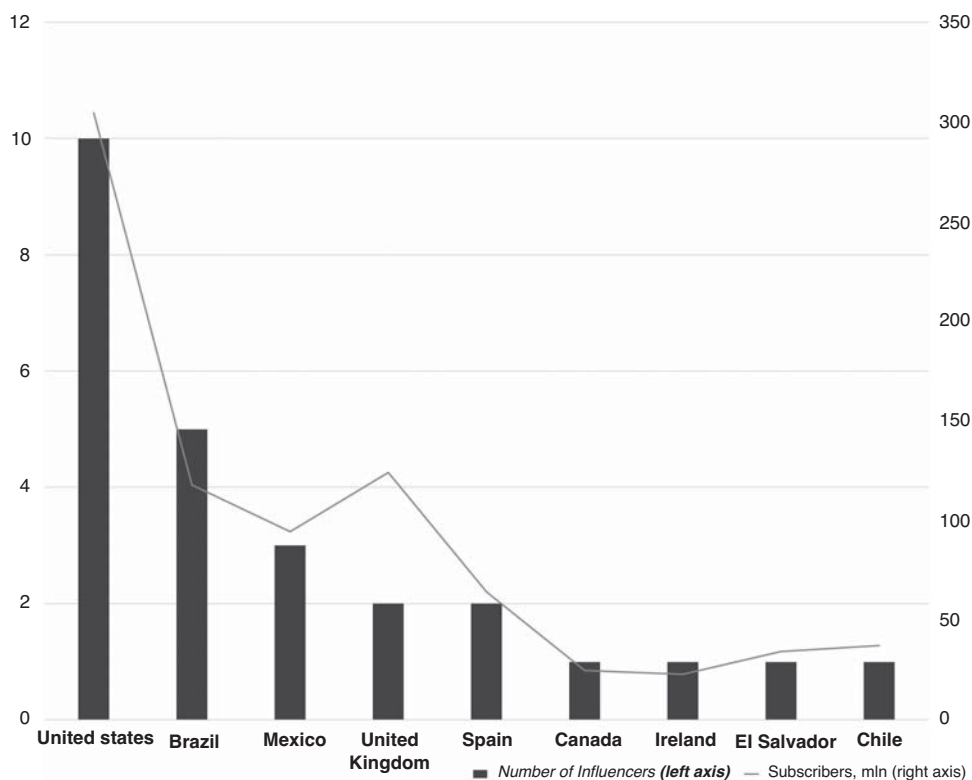


Figure 11.1 Countries with the top 26 independent YouTube influencers and their combined subscriber base

Out of the 26 YouTube influencers, ten stars broadcast from the US, five from Brazil, three from Mexico, two from the United Kingdom and two from Spain, while Canada, Ireland, El Salvador, and Chile have one star each (Leskin 2020). Europe hosts five influencers with 211.6 million subscribers. North and South America combined hold the most with 21 independent YouTube influencers, and the largest combined fan base of 613.5 million. The US has the largest number of active users and 90% of US internet users watched YouTube in 2018 (Clement 2019). The amount of traffic and broad participation demonstrate that YouTube, which started as an American phenomenon, has built a new global cultural community.

The opportunities of social interaction and quick fame offered by YouTube, Vimeo, Instagram, Twitter and other streaming video platforms attract people across the globe to such a degree that safety is often overlooked. Death stunts became a popular genre fancied by professional models or weathermen along with common folk just to acquire “likes” and monetary gain (Elgan 2019). People shoot pictures on high cliffs, on rooftops in Russia and China, in/on/near trains, when they dive in a dangerous pool, encounter wildlife, compete in the “fire” or “tide pod” challenges, stick their head in a microwave, or simulate gun play (the latter is often associated with US risk-takers). Research shows that deaths and injuries tripled from 2014 to 2015 due to risk-taking clips. Fatalities rose and 259 people died taking selfies in 2001–2017 (Bansal et al. 2018, 829). Most of the selfie deaths happened to occasional risk-takers, when they decided to picture an unusual moment like a close encounter with a bear. Some deaths went unreported, and others died when taped by someone else. Geographically, half of selfie deaths occur in India and many of them happen during “train surfing” (Cothier 2016). Russia, the United States and Pakistan follow India in the number of fatalities caused by drowning, experimenting with transportation and heights (Bansal et al. 2018, 830). Localities vary from dangerous shoots in public spaces like the Grand Canyon and Yosemite, a train in India or a Shanghai tower, to private places like yards and homes. YouTube and Twitter instituted policies against publishing videos and photos of harmful activities to curb dangerous incidents, however individual competition with others in the global risk-taking market continues to drive genre development.

The top ten countries with the most YouTube users relative to the number of internet users are presented in Figure 11.2. In 2016 in India, only 29% of people had access to the internet and 11% of the wired population watched YouTube (Figure 11.2). By 2019, the Indian online community had grown to 462 million people and roughly half of them watched YouTube (Diwangi 2019). The fivefold jump in YouTube consumption demonstrates a remarkable social change within four years.

The rise of YouTube can be attributed to content geared towards the popular love of music, comedies, beauty and how-to videos produced in vernacular languages. According to Poonam (2019), Indians can search for and view 95% of online videos in their native tongues in addition to English. This opens a window of opportunity for the marginalized population to connect with the world, form new communities, and learn new skills as well as enjoy entertainment and spiritual programming. YouTube is predominantly viewed on mobile devices in both urban and rural places varying from public to private areas that can include homes, workplaces, hotels or mass transit. YouTube’s mobility contributes to its success in rural India where hard-wired connections are challenging to obtain. Following the astronomical growth of YouTube, the Indian entertainment model is changing. Big film corporations like Indian T-Series have become very successful and serve a huge market of more than 100 million subscribers by diversifying their content from devotional songs to popular music and production of video clips and films; 133 Indian independent content creators have

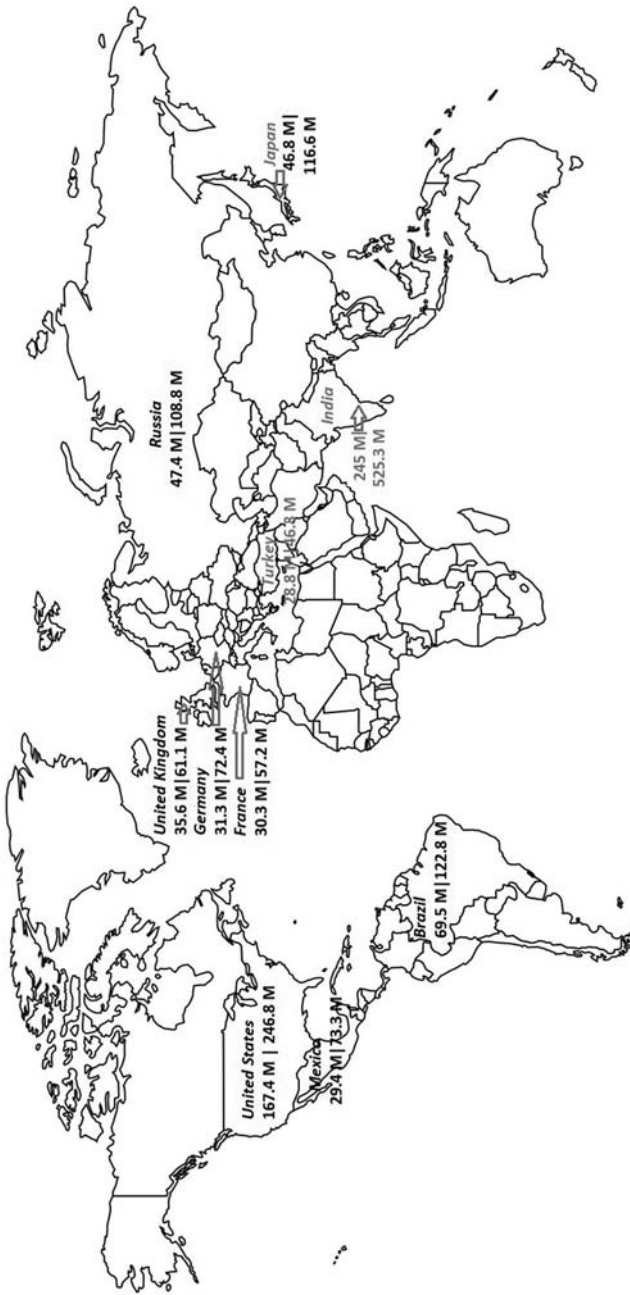


Figure 11.2 Top 10 countries with the most YouTube unique users and internet users, 2016

more than a million followers each and they often operate as a small business working with a team. Among video game commentary and beauty, money-making or purchasing advice, many Indian influencers deliver educational programs that schools may assign to students instead of a traditional class. Other programs teach how to improve life, to develop a career or just deliver motivational content. India is leading YouTube usage in Asia due to the affordable internet and mobile technology, diverse content produced in native tongues and the second largest population in the world.

Regional culture defines spatial patterns of video streaming platform development and usage. Though Japan is a less populous country than India, it is famous for technological innovations and for embracing high-tech tools and resources. A startling 92% of Japanese or about 116.6 million people were wired to the internet in 2016, which made it the fifth-largest online population in the world after China, India, the US and Brazil (Figure 11.2). More than 35% of the 47 million active Japanese YouTube users watch YouTube on their smartphones (Migiro 2018). A homegrown video sharing site NicoNico attracts 4 million subscribers and it started operations in 2006, one year after YouTube's launch. YouTube created a unique online culture of entertainment and education combined with an opportunity to form communities of special interest, and that culture manifests in Japan where users spend more time on video streaming platforms than on social websites (Spinks 2016). The flexibility of YouTube contributes to its success because subscribers can preserve their relative anonymity and they can modify content by displaying channels and clips that reflect their cultural preferences. YouTube communities allow Japanese fans to stay up-to-date and to express enthusiasm for news and events in real-time. NicoNico has advanced this flexibility to the next level by introducing new terminology, mascots and programs that are specific and dear to the local audience. NicoNico offers a variety of genres, including but not limited to anime, manga, idol groups, gaming, product reviews, how-to and music. These videos excite viewers who want to share their experiences with other followers. Technology recognizes the need for a high level of engagement and NicoNico's unique bullet chatting software displays user comments at corresponding points in the videos (Statista Research Department 2019a). An exceptionally personalized experience is the cornerstone of video streaming culture in Japan.

France created its own video sharing service and mobile app called Dailymotion in 2005, a month after YouTube was launched there. Dailymotion has 250 million monthly unique users who can view content in 18 languages, and it is the second-largest video sharing platform in the world for both professionals and amateurs (Mary 2016; Dailymotion 2020). Dailymotion organizes content in categories similar to YouTube, including News, Sports, Music and Entertainment, but it lacks Cooking, Health, Science and Education categories. YouTube has Google tools for creators to analyze the number of views and their origin, and that information helps further develop content and improve engagement. Dailymotion does not provide similar analytics. It has instead focused on software development to show high-quality videos shorter than 60 minutes. Content creators appreciate Dailymotion's attitude towards minorities, flexibility with copyright infringement and filtering options for adult content with Age Gate. YouTube restricts the upload of questionable videos to avoid legal battles. Dailymotion's most recent agenda is to expand their paid online TV service for the audience using smart TVs who can stream video programs and movies. This policy aims to attract advertisers looking to connect with "cord-cutters," the viewers who prefer to access on-demand digital content (Dailymotion 2020). Dailymotion's interface was updated to fit mobile screens and its design encompasses three clear sections: trending content with suggestions; a personalized collection of videos that the user follows; and a library where videos

can be saved to watch later. Overall, Dailymotion is lagging in user-generated content and it is moving towards becoming an online extension of television services.

User-generated videos allow civil discussion to reach broad audiences, who otherwise would have to receive information from state-controlled media. Russian mainstream television rarely presents the views of political opposition or cultural antagonism and YouTube provides a platform for freewheeling opinions. YouTube in Russia is the second most visited online site after Google and it is more popular than homegrown sites such as Yandex, Vk.com, Whatsapp.com, Odnoklassniki.ru, and others (Elagina 2020). Nearly 79 million Russian users visited YouTube in July 2019, one and a half times more than in 2016 (Figure 11.2, MacFarquhar 2019). Of urban viewers aged 18 to 44, 82 percent search for news on YouTube, and young Russians, from 18 to 24 years old, demonstrate higher trust in internet news over conventional broadcasting. Mr. Dud [Dude], a Russian YouTube celebrity, has over 5.2 million subscribers who enjoy his provocative interviews with opposition and Kremlin favorites. Online Russian celebrities currently experience a fair amount of freedom of speech, but a new law in 2019 on “sovereign internet” aims to centralize information technology and censor online expression (Freedom House 2019a). The commercialization of YouTube presents another threat to homespun marginalized content, yet YouTube still provides a viable platform to publish an independent outlook and to engage the public in conversation.

### *Streaming video censure*

The Communist government in China banned both Google and YouTube, which refused to censor their content under Communist Party guidelines. Local video sharing portals emerged such as iQiyi, PPTV, Sohu, LeTv, Tencent Video and the largest of these, Youku Tudou, Inc. (Davila 2019). In the most populous country in the world with roughly 1.4 billion people, 580 million users—or nearly 39% of the population—subscribed to Youku Tudou in 2018. Contrary to Youtube’s strategy in facilitating user-generated content, Youku Tudou along with other nationally based video streaming sites focuses on delivering licensed exclusive content. Their interface does not aim to satisfy the unique taste of users; rather the sites facilitate online browsing for videos organized by category. The offered content reflects the leadership’s opinion of what users should see, which transforms video streaming into an extension of online TV services. Any semiprofessional production undergoes Chinese government censorship and each video must be approved before its transfer to the internet, limiting freedom of expression (Curtin & Li 2018, 354; Wang & Lobato 2019, 361–362). Chinese amateur video content, grassroots activity and political critique ceased quickly after the state initiated copyright enforcement campaigns and required sites to partner with licensed TV networks owned by the state. The most popular video services were incorporated into technical giants such as Baidu, Alibaba and Tencent. Executives from these corporations participate in the National People’s Congress, which is the supreme policy-making authority supervising communication culture. To operate, every video streaming website has to obtain multiple licenses, for example, iQiyi has 11 accreditations varying from a food trading permit to “China Internet Integrity” certification (Wang & Lobato 2019, 363). The government also participates in enlisting capital for internet project development, which further ties technical corporations to political structures. The close integration of the Chinese state and market leads to governmental control and that is the fundamental difference between the American and Chinese video streaming platforms. Wang and Lobato (2019, 367) argue that internet culture has historical and geographical roots, and the liberal values of

Californian cyber culture can determine the essence of digital services produced in the West. In contrast, Chinese video sites originate in perceptions formed by the government and are propelled by the “Chinese dream” and the “going out” policy. In Chinese ontology, “state and market are different facets of a common entity” and video streaming platforms are seen as participants in advancing state goals in the country and beyond (Wang & Lobato 2019, 364). Cultural and political contexts induce video production, which becomes an online extension of official mass media and is limited to enhancing the national agenda and collective work ideals.

Governmental censorship of online video culture is not unique in East Asia. The South Korean mobile messaging application KakaoTalk, with gaming and video sharing capabilities, has over 50 million monthly active users (Statista Research Department 2019b). In democratic South Korea, KakaoTalk receives thousands of executive requests to censor content, to provide users’ information with a search warrant, and to wiretap under the pretense of preventing government insults and the spread of fake news (Yoon 2017). The Korea Communications Commission (KCC), established in 2008, manages internet content censorship, and the number of sites blocked and deleted has been growing ever since. The overall number of government intervention requests to online media tripled in 2018 compared to 2017, and cases varied from the investigation of pornography to cyber defamation of the South Korean and US governments (Freedom House 2019b). YouTube is gaining popularity and its number of Android users was 34 million in 2019, a 38% increase on 2016 (Crichton 2020). Most Koreans use a smartphone to watch YouTube, and time spent on the site exceeds time spent on the KakaoTalk app (Jin-Young 2018). Content hours uploaded to YouTube in South Korea increased by 50% from 2018 to 2019, and over 200 channels have over one million subscribers (Crichton 2020). A variety of global information deepens engagement on YouTube because the local apps focus on local content. In 2009, South Korea enacted laws that blocked the ability of Korean online users to upload material and publish comments, including anonymous trolling, on YouTube and approximately 150 other websites (Hoffberger 2012). That ban was active until 2012, and for three years, many Korean users could only watch videos on YouTube. To use the full set of features, many accessed YouTube illicitly by creating an account and logging in via another country’s site. It is unclear if those users were prosecuted because the Korean administration must ask Google, an American company, to identify the content creators or commenters. For example, in 2018 the Deboreo Minju Party identified 104 YouTube programs as fake news and asked Google Korea to remove the content. The request was rejected because Google refrains from content credibility assessment to provide freedom of speech (Chavern 2019; O 2019). In 2019, South Korea introduced a system to temporarily block online services, including global operators like YouTube, Facebook and others, to strengthen “the Regulation of Illegal Information/Service” with a stated objective to inspect prohibited activities and protect users (Korea Communications Commission 2019). Many YouTubers and their followers think that the legislation suppresses freedom of speech and freedom of the press, and they point to a similarity with Chinese media control that restricts semiprofessional production. The government and professional media counter this with the argument that the new KCC plan is an attempt to provide quality journalism, reliable information, and protect the nation and individuals from the adverse effects of the internet.

Germany does not guard the government from criticism by requesting user data to initiate local investigation of such critics; rather the government focuses on hate speech (Pat 2010). Germany’s past explains the strict rules prohibiting neo-Nazi or Holocaust deniers’ content. All mass media, including global, local, online or conventional, are expected to follow the



regulations. German authorities look broadly at the protection of minors and they delete or request the removal of media products that incite crime or have indecent, violent or racist content. Another serious offense is copyright violation. In 2009, the German music rights organization GEMA initiated a legal battle by requiring payments from YouTube for playing music that was created by artists registered with GEMA (Hill 2016). YouTube disagreed because it pays creators for advertisements which are displayed on channels that have at least 1,000 subscribers (Google 2020a). For seven years, from 2009 through 2016, thousands of music videos were blocked from view for German YouTube watchers. In 2016, YouTube announced that they had reached “a landmark agreement” with GEMA that enabled music artist members to receive compensation for future songs, videos published in 2009 through 2016, and advertising revenue. Videos of non-GEMA members may still be blocked. In addition to listening to music, German YouTube users follow gamers, and view how-to videos, educational and news programs. One of the young influencers, Rezo, delivered such well grounded and insightful polemics against the government that some establishment parties tried to mimic his style (Schuetze 2019). Though 80% of young Germans value news from newspapers over updates posted online, more and more millennials and conventional journalists recognize the importance of critiques posted by influencers on YouTube.

The increase in unregulated online content troubles governments regardless of their political structure. According to the Google Transparency Report (Google 2020b), 145 countries submitted requests to Google to remove online content because it may have violated a local law, or the country issued a court order to delete it. Additionally, authorities ask content to be reviewed if it violates Google’s “product community guidelines and content policies” (Google 2020b). Expressed concerns may relate to national security, defamation, copyright, privacy and security, trademark, hate speech, obscenity and other issues. Google analyzes every incident, taking into account each country’s respective regulations. The content may be blocked from view in the country that made the request or may be removed completely. Often the content stays or the owner makes changes or deletes it. In 2018, more than half of such requests, or 23,934 cases, were directed towards YouTube products. That trend represents a dramatic 28-fold increase compared to 2010, when Google started publishing these statistics. Online information is experiencing rising scrutiny, which increases both censorship and users’ protection.

### ***Personalization of the viewing experience defines the cultural divide***

Video streaming platforms, especially YouTube and Netflix, focus on viewing experience personalization to increase viewership. The above analysis of streaming video popularity across the world demonstrates the commercial viability of the strategy, which attracts users of different cultural backgrounds. A high proportion—74% to 89%—of viewers across generations use YouTube recommendations in selecting a new video (Smith et al. 2018). YouTube’s search algorithm magnifies personal preferences by generating a sequence of choices. After the initial video search with keywords, the algorithm persuades the viewer to pick a video from a list alongside the current video they are viewing. These narrowed personal selections can lead to cultural fragmentation, which concerns scholars (Sunstein 2018, 77; Wang & Lobato 2019, 364). In our experience, a US geography professor who looks for a video about volcanic activity will probably select an English source from a reputable channel, like the National Geographic, USGS or BBC. Furthermore, the discussion of volcanic impact on society will mostly focus on negative destructive forces. On the contrary, the Japanese or Icelandic view of volcanoes would stress the beauty of the constructive forces that create and fertilize land, as well as providing sources of heat for life to thrive.

YouTube records and publishes user interactions with content, which can be used for research. The uploader's network, number of previous views and video age altogether determine the video's popularity (Bärthel 2018, 18). The fame of a very young video depends on the uploader's network size, and a broadly known creator receives the most views. For example, a new video created by the well known National Geographic channel can become viral in the United States faster than a video made by a foreign unfamiliar source. YouTube's search algorithm keeps recommending the often-viewed content, which proliferates older popular videos. Brodersen (2012, 249) points out that the algorithm creates barriers to the geographic diffusion of ideas because individuals make choices based on language, area of interest such as entertainment, news or sports, and the physical proximity of users. Overall, personal choices shape the online environment and most people trust widely promoted familiar media products.

YouTube aims to engage people across the world with a variety of interests. Tens of millions of channels with billions of videos are grouped into 18 categories such as Autos and Vehicles, Comedy, Education, Entertainment, Film and Animation, Gaming, How To and Style, Movies, Music, News and Politics, Nonprofits and Activism, People and Blogs, Pets and Animals, Science and Technology, Shows, Sports, Trailers, and Travel and Events (Bärthel 2018, 22). YouTube content has evolved over time and Google and YouTube regularly update stats that can be used by scholars to characterize the evolution (Google 2020b; YouTube 2020). It is still technically impossible to analyze all of the videos hosted by YouTube (Wu et al. 2014, 98). To represent common trends, Bärthel (2018, 20) used the YouTube application programming interface (API) to gather and analyze statistically random data samples from 5,591,400 videos uploaded to 19,025 channels between 2006 and 2016. To minimize bias, the data collection tool was designed to randomly select up to five Latin letters and then duplicates were removed. The use of Latin letters discriminates against channels with titles in Arabic, Cyrillic, Greek, etc., though data on some number of such channels was retrieved when one or two letters matched.

The channel data samples from 2006 to 2009 show that YouTube creators uploaded mostly Music videos followed by categories such as Entertainment, People and Blogs, and Education (Bärthel 2018, 22). Then the People and Blogs category took the lead, eventually comprising about 75% of newly created channels by 2016. Gaming became the second most popular channel category in 2012 and has occupied that place since. Categories such as Pets and Animals, Autos and Vehicles, Nonprofits and Activism, and Travel and Events accounted for the least amount of new channels from 2006 to 2016. The most active channels are News and Politics, Entertainment, and People and Blogs, where new video uploads comprise 45%, 12% and 9% respectively of all content creation. Though the News and Politics category is very dynamic in contributing new videos, it accounts for just 3% of all YouTube channels because most news channels were established early in YouTube's existence and other categories have proliferated since then. For example, the People and Blogs category grows as more people create new channels. The dynamics of new content creation does not match the popularity of videos among users, who mostly view Entertainment, Music and Gaming programs with 24%, 17% and 13% of all views respectively. Throughout the years, popular preference has fluctuated between News and Politics, Music, Entertainment, Gaming, People and Blogs, Comedy, and Shows. To analyze the distribution of views among categories, Bärthel (2018, 26–27) divided annual data into the top 3% most viewed channels and the bottom 97%. There is a clear dominance of popular channels which is demonstrated by the long-term increase of the top 3% most viewed channels, both in the amount of uploads and number of views. Further analysis of success probability from 2011 to 2016 shows that a

category influences whether a channel will break into the popular top 3%. During that period the best chance to become popular belonged to the Comedy, Entertainment, How To and Style, Gaming, and News and Politics categories. The People and Blogs category, which is very active, as well as the Sports, Education, Nonprofits and Activism channels had less than the average chance to enter the top 3%. Bärthel (2018, 30) concludes that a small percentage of channels dominate the rest of YouTube production due to (1) the common patterns in information development and dissemination, (2) a discrepancy in supply and demand of various content, and (3) YouTube's algorithms which guide video search and its advertisement policy which magnifies video popularity. An independent study by the Pew Research Center confirms that the YouTube API recommends increasingly popular and longer content regardless of the criteria used to select the initial video (Smith et al. 2018). In our opinion, these processes marginalize younger unfamiliar content, which deepens the cultural divide between individuals.

### Application of YouTube in education

Many Americans use YouTube to expand their knowledge. The Pew Research Center conducted a survey among 4,594 US adults to evaluate if information on YouTube is very important, somewhat important, not very important, or not important (Smith et al. 2018). An astounding 87% of respondents indicate that YouTube content is important when figuring out how to do things they have not done before, and roughly half of 18 to 29 year olds say these videos are "very important." Every fifth user considers YouTube content to be "very important" when they want to understand things that are happening in the world or make purchasing decisions. One-third or 34% of surveyed parents look for children's content and allow their kids to watch YouTube regularly, while 81% of all parents do that sometimes. Nearly two-thirds or 61% of surveyed parents express concern that their children encountered inappropriate content. To protect children from disturbing videos, parents are advised to use a special product, YouTube Kids, that has the option to set up parental control and monitoring. The survey results confirm that people watch a variety of content and they are open to learning with streaming video.

Educators use audiovisual aids and various teaching methods to increase student engagement and to meet diverse learning needs. Anderson et al. (2001, 318–322) and Kopteva (2018, 85–86) argue that information delivery should support academic growth from the level of understanding through application and analysis to synthesis and evaluation levels described by Bloom's Taxonomy. Kopteva (2018, 88) points out that short instructional videos assist human geography students in learning complex spatial problems. For example, the study of Colorado Springs' urban sprawl requires the consideration of both physical geography such as the presence of the Front Range in the west, and human activities including but not limited to tourist and military support. Videos can demonstrate the development patterns throughout space and time in minutes, while a book typically has to present multiple color figures with pages of description that may be hard to process for novice geography learners. Berk (2009, 5) defines current students as the *Net Generation* used to receiving knowledge in video format which can be utilized to exploit students' multiple intelligences and learning styles. Even more, Berk (2009, 9–14) highlights 20 potential learning outcomes and 12 specific techniques for using video clips in the classroom. The integration of academic content with video material excites students and keeps them engaged, while associated discussion provides an active learning opportunity by correlating with a real-world scenario. Blended Learning Theory calls for a thoughtful integration of

face-to-face and online learning experiences, which can include content on YouTube and Netflix or videos created by the instructor and hosted by a learning management system such as Blackboard, Canvas, Desire 2 Learn and others (Garrison & Kanuka 2004, 96; Fleck et al. 2014, 22; Kopteva 2018, 89). Instructors can find useful content in YouTube's educational hubs<sup>1</sup> or on individual channels. For example, GeographyNow,<sup>2</sup> Wendover,<sup>3</sup> National Geographic, PBS and others have various geography-related videos. Faculty from various disciplines employ YouTube in the classroom across the world, and the United States takes the lead (Snelson 2011, 163–165; Almobarraz 2017, 79).

The majority of YouTube's production is semiprofessional and one must carefully review an online video for content quality before showing it in the classroom. The selected video clips should be enhanced with questions to discuss in the course. Learning is a social process where dialogue helps shape thought and peer interaction is crucial for mind development (Vygotsky 1978, 137–140). Student-driven discussions, which are facilitated (not led) by the instructor, increase content comprehension, critical thinking, and student satisfaction. In the study of a hybrid psychology course, one or two video clips shorter than 5 minutes accompanied every textbook chapter, followed by a small group discussion; 85 students were surveyed at the beginning and end of the semester, where 80% reported positive perceptions of using YouTube to support learning and 97.3% enjoyed the experience (Fleck et al. 2014, 30). Kopteva (2018, 89) analyzed student feedback received during 2008–2016 before and after the integration of human geography online course content with streaming videos and correlated activities. The feedback showed that the integration provides opportunities for reflection and mutual sharing in discussion forums and it develops a learning community where students can exchange thoughts and have “aha” moments. The approach improves student comprehension of the concepts and their application in real-world situations, for example through the analysis of the spatial diffusion of AIDs or the impact of irredentism on the political situation in Iraq. In the fall of 2016, 88% of human geography students viewed videos created by the instructor, which increased their overall participation in the online course and satisfaction with the learning process. Kopteva (2018) calls the course improvements “the quality matters journey” and emphasizes that streaming video has a crucial role in the educational process.

## **Conclusion**

Video streaming technology is a powerful communication tool that is widely used by billions of people across the world. The most popular platform YouTube pioneered the integration of video sharing and search capabilities with social opportunities. YouTube's focus on user-generated content and relative anonymity creates a new online culture that promotes personal creativity and attracts a diverse audience. The global spatial patterns demonstrate that individuals form video communities of like-minded followers regardless of cultural, geographic and political borders. New independent video creators engage broad audiences in conversation about video games, makeup art, shared experiences, social opportunities and such. The video streaming stars called “influencers” can attract over 20 million fans each. A clear geographic divide in independent broadcasting demonstrates that the biggest YouTube influencers video-stream from the Americas, where the largest fan base resides, and the heaviest traffic comes from the US. YouTube encourages subscription growth by paying popular channels to display advertisements. New cultural trends have emerged, such as a genre of “death stunts” where individuals compete with the global risk-taking market for quick fame by publishing online their dangerous activities that can lead to death.

Regional culture influences the video streaming products. Following the US, India is the second-largest YouTube market and its popularity can be attributed to content produced in vernacular languages in addition to English and the mobile capacity of video streaming. The latter contributes to the dominant use of YouTube over Netflix. YouTube offers entertainment as well as an opportunity to connect with and learn from the world, which attracted various demographic groups and led to gigantic growth for YouTube in India. The Japanese value YouTube's flexibility in displaying and updating the content of their choice, which allows them to stay current with other fans in respective online communities. Japan's homegrown NicoNico advanced video streaming by developing "bullet chatting software" to provide an exceptionally personalized experience. YouTube in Russia creates a platform for freewheeling opinion and conversation. A French YouTube rival Dailymotion focuses on producing smartphone-friendly and high-quality videos rather than on user-generated content. Chinese video streaming culture has drifted away from focusing on user-generated content and personal choices. YouTube was banned because it refused the Chinese censure, and local video streaming companies became an extension of official mass media that sends forth the "Chinese Dream" and the "going out" policy. Online broadcasting in South Korea is another example of heavily censored media in the world, where the options to upload material and comments can be turned on and off following governmental claims about "fake news" or defamation. Germany recognizes the importance of independent political criticism, though the authorities can ban YouTube programs because of copyright issues, hate speech or incriminating content.

A striking variety of video products exist in the world, however YouTube's search algorithm proliferates personal preferences and creates cultural divisions at the personal level. YouTube generates a list of suggestions to view alongside the current video and that obstructs geographic diffusion and can lead to cultural fragmentation. The algorithm persuades people to make choices among familiar content. There is a discrepancy in the video uploads and views over time. In 2011 through 2016, popular preference belonged to the categories of comedy, entertainment, how to and style, gaming, and news and politics. Other video categories and younger unfamiliar content from smaller networks have a small chance to become popular.

Younger Americans prefer watching streaming videos on their mobile devices. The surveys show that self-educating videos, as well as programs about products and world events, are important to viewers. These viewing preferences indicate that instructional videos should be short, and associated discussion should integrate academic content with real-world situations to provide an active learning opportunity. Using audiovisual tools in education increases student engagement and diversifies instruction to accommodate learning styles. YouTube's numerous educational hubs and channels can assist geography students in learning complex spatial problems.

Educators should employ public engagement with streaming video to enrich instruction and to build a learning community where cognitive development is reinforced by discussion of real-world examples, with sharing of ideas and "aha" moments.

## Notes

- 1 [www.youtube.com/edu](http://www.youtube.com/edu)
- 2 [www.youtube.com/user/GeographyNow](http://www.youtube.com/user/GeographyNow)
- 3 [www.youtube.com/user/Wendoverproductions](http://www.youtube.com/user/Wendoverproductions)

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