

The “Meme Ban”: Friction between Internet Technologies and Copyright Law

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

Modern business models, social interaction, and distribution of media rely on the Internet to deliver a seamless exchange of information to users. Over the next few years, the importance of the Internet will continue to grow globally; Cisco estimates that approximately two-thirds of the world will have Internet access by 2023 (Cisco, 2020). Connecting users online via social media, such as Twitter and Facebook, has been one of the most transformative outcomes from the Internet. In 2018, Facebook alone had 1.45 billion daily active users “spending an average of 50 minutes” across all Facebook-owned platforms (Corrigan et al., 2018). Online content sharing service providers (OCSSPs) typically rely on user-generated content (UGC) as their primary source of material. YouTube, a video-hosting service owned by Google, reported over a billion monthly active users and “hundreds of millions of hours are spent daily on their platform” in 2016 (Balakrishnan & Griffiths, 2017). These users upload more than 500 hours of video to the site every minute. However, in these Internet business models, users not only drive content creation but also revenues.

Most of these sites provide content to their users free-of-charge. Instead of paywalls, platforms such as Wikipedia and Github will ask for donations or monetize premium features to cover costs. However, the vast majority of platforms choose to monetize their content with sponsored posts or sale of advertising space. This allows providers to indirectly generate revenue from content creators when users view webpages or click on advertisements. However, although some material posted on the Internet is original, a large proportion of UGC circulating is either directly taken or partially derived from unlicensed, copyrighted content. Because the content of these sites is relatively unregulated by the platforms themselves, rights holders find themselves in an uphill battle to claim and take down unlicensed content that is indirectly monetized.

In June 2019, the European Union (EU) adopted the Directive on Copyright in the Digital Single Market (DSM), an amendment to EU copyright law to promote “a modern, more European copyright framework” (European Commission 1016). The directive was, in part, a “response to tech development by updating the copyright framework” (Furgal et al., 2020); the existing EU copyright framework was determined to be outdated in the digital age given modern digital distribution technologies such as the Internet and social media (e.g., Twitter, Facebook). The conflict between copyright law and emerging technologies is not unique to digital downloading and streaming nor to the European Union. For example, radio and photocopiers can be used to circumvent private purchase of material. Preventing piracy and theft of intellectual property enabled by new technologies and determining liability is both a modern and historical dilemma.

However, despite receiving a majority vote in European Parliament, the DSM Directive was met with harsh criticism over Articles 15 and 17, previously known (and commonly referred to) as Articles 11 and 13, respectively, in the 2018 draft. In particular, Article 17 places strict liability on the OCSSPs when hosting copyrighted content. Critics of the directive point out that it encourages platforms to filter and censor copyrighted content and call into question the ethics of content-filtering technologies’ limitation of fundamental human freedoms. Thus, the conflict between technology and copyright law has drawn stakeholders in government, tech companies, publishers, creators, and consumers. By analyzing similar digital copyright debate in the United States and Europe, we can better understand the issues caused by Internet-enabled piracy in addition to how content-filtering software will not fully solve piracy and will instead infringe upon the rights of consumers.

Internet Speech and Digital Remix Culture

Freedom of speech is a principle that allows individuals and groups to express their ideas and opinions in public discourse without restriction or censorship. To convey their thoughts, “people often speak their minds by drawing on, modifying, innovating, and criticizing existing culture” (Beykont, 2020). This is especially clear in digital remix culture, where Internet memes are frequently used to parody existing works. Internet memes are “(a) a group of digital items sharing common characteristics, content, form, and/or stance; (b) that were created with awareness of each other; and (c) were circulated, imitated, and/or transformed via the Internet by many users” (Shifman, 2013). They are found in various media (e.g., video clips, still images) and are often distributed on social media sites in the form of user-generated content. Internet memes and the platforms that distribute them have enabled a greater opportunity to participate in a cultural democracy (Beykont, 2020 p10). However, users often draw upon or reuse copyrighted materials in their content. Although the use of copyrighted materials improves users’ ability to exchange information and opinions, it encroaches on intellectual property rights.

Copyright and Technology

In western countries, copyright is one method used to promote legal protections over intellectual property (IP). In the United States, copyright is defined as “a form of protection . . . for original works of authorship fixed in a tangible medium of expression” (US Copyright Office p8). As new technologies emerge, however, governments are tasked with updating copyright law to match modern trends. For example, technologies such as the printing press, radio, and photocopiers have enabled unauthorized replication of IPs. In the Copyright Act of 1909, Congress “extended the copyright law to all ‘mechanical reproductions’ of copyrighted music” in response to the gramophone and piano player (Thuronyi, 2017). In recent decades, the two key

copyright laws at the center of debate in the United States are fair use and the Digital Millennium Copyright Act.

Fair Use

Fair use allows usage of copyrighted materials without license. In the US, fair use policy relies under the following test:

1. The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. The nature of the copyrighted work;
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. The effect of the use upon the potential market for or value of the copyrighted work. (US Copyright Office)

Generally, copyrighted materials used for education, news, and criticism/commentary are exempt from license requirements. Fair use has enabled, for example, modern image search engines. Google Image Search indexes and displays billions of images, but does not need to obtain a license for them (Netanel, 2011 p763-764). Parody is also protected under fair use under both US law and EU law, but the line between copyright infringement and fair use is often blurred.

Digital Millennium Copyright Act

In the years leading up to the dot-com boom, copyright holders were concerned that their works were being illegally reproduced on the Internet. In response, Congress enacted the Digital Millennium Copyright Act of 1998 (DMCA). Like the EU Directive on Copyright, DMCA “was intended to encourage rights holders and legitimate online service providers to work together to

find solutions to online theft” (Abbott, 2017 p6). However, a major criticism of DMCA is that the burden of identifying and informing platforms of copyrighted material disproportionately falls upon the content creators. According to Google, more than 5 billion takedown requests have been issued, many of which come from music publishers and anti-piracy companies (Google, 2021). This is primarily due to the exponential increase in the Internet’s proliferation, which is estimated to contain over 5 billion indexed webpages (WorldWideWebSize, 2021). Therefore, the distribution of responsibility to identify and remove unauthorized and unlicensed work continues to be one of the biggest challenges today.

Platform Liability

In response to the unbalanced responsibility, one of the key objectives of the DSM Directive is to increase the liability of platforms. In this way, content-hosting platforms would be responsible for actively removing infringing content or face financial or legal punishments. Although the platform itself is not directly publishing any infringing content, it is the intermediary for which it is distributed. The idea of holding intermediaries liable for its users can be found in the case study of Napster, a peer-to-peer (P2P) music sharing software that allowed users to upload and download music from other users. Although Napster was not directly involved in hosting copyrighted files on its own servers, Recording Industry Association of America (RIAA) accused Napster of copyright infringement. The court ruled that by refusing to delist or remove the infringing content from its platform, it was responsible for indirectly infringing on copyrights. Although Napster was shut down and its assets liquidated, over the next couple of decades the music industry saw one of the most drastic effects from online piracy. From 1999 to 2014, global music industry revenues dropped from a high of \$25.2 B to \$14.1 B (Lozic, 2020 p209). This has been largely compensated by the introduction of streaming

platforms (e.g., Spotify, Apple Music), which was attributed to about 50% of the \$20.4 B global revenue in 2019 (Lozic, 2020 p209), but publishers are still concerned about unauthorized access and distribution of their music. Publishers in other fields, such as photography and film, have also voiced concerns. In response, public platforms allow rights holders to issue takedown requests for their users' violations, but the indirect commercialization of the infringing material before it has been removed has become a subject of contention.

Content Commercialization

The Internet has transformed the way that consumers find and digest media. For example, transitioning into 2010, more people got their news from online digital sources than either the newspaper or radio (Pew Research Center, 2012). Due to this trend, online content creators and publishers are constantly looking for ways to monetize their content. Because viewing content is typically free-of-charge for viewers, content providers' business models primarily rely on sponsorships or selling webpage real estate to advertisers. In 2020, Alphabet reported \$19.7 B in revenue from YouTube advertising alone (Alphabet Inc., 2020). Small content platforms, such as blogs, have done the same. Google AdSense enables websites to seamlessly sell advertisements while handling the auctioning process behind the scenes (Varian, 2009).

Because of the effectiveness of the algorithms used to monetize UGC content, often containing copyrighted material, one of the most dominant arguments for the DSM Directive is to reduce the "value gap" (Furgal et al., 2020). The value gap refers to the value generated by the platforms (e.g., views, ad revenue) versus the value returned to rights holders (such as through licensing fees). Although all platforms were targeted in Article 13, strict liability in Article 17 only applies to for-profit companies; nonprofits are exempted from liability. At the plenary discussion on the directive, Axel Moss explained, "big tech firms make massive profits on the

backs of authors, artists, and creators of the European Union” (Thomas, 2018). In this sense, platforms are viewed in a negative light and likened to parasites. Like DMCA in the United States, existing copyright laws in the EU place the burden of content detection on the rights holders. Since platforms have little incentive to detect and remove for copyrighted material themselves, rights holders must notify platforms of the content themselves in order to balance the value gap.

Direct Effects of the DSM Directive

Content Filtering

The goal of Article 17 is to redistribute the revenues from platforms (that do not qualify for any exemption/limitation) to the rights holders. Under Article 17, online content sharing service providers (OCSSPs) are directly liable for any unauthorized or unlicensed material that is uploaded and visible on their platform. OCSSPs are given two choices to adhere to the new guidelines: they either need to “obtain an authorization from copyright holders . . . (licensing) or take measures to prevent the availability of infringing content from the outset (filtering)” (Senftleben 2019). Regardless of the measure, this means that platforms such as YouTube, Twitter, and Facebook will need to scan user uploads for copyrighted music and graphical content. This is obvious in the original proposal, which called for platforms to employ “effective content recognition technologies” (European Commission 2019). Although Article 17 no longer explicitly states content recognition technology, it is still implied as the primary method of enforcement given the sheer volume and variety of UGC uploaded to platforms every day.

If content is identified as copyrighted, content platforms must either enter a licensing agreement with rights holders or filter out the offending content and make it unavailable.

Licensing can be expensive and may not be available for all works. The latter, filtering, is seen as a form of systematic monitoring of user content and a strong point of contention. After the DSM Directive was passed, EU Commissioner Gunther Oettinger admitted that “upload filters cannot be completely avoided” despite claiming that they would not be required (Masnick 2019). Because it is highly likely that some form of content-filtering technology would be used, this incurs significant ramifications for both platforms and users.

Burden of Filtering on Platforms and Users

Requiring (or implicitly requiring) that UGC platforms install content-filtering technology directly affects two major stakeholders: platforms and content-uploading users. First, the installation and upkeep for content-filtering software is an additional expense on platforms. Second, prohibiting users from uploading content, especially if it does in fact fall outside the copyright, can infringe upon creators and viewers’ freedom of expression. The restriction on freely uploading is viewed as a form of censorship (Furgal 2020). Platforms may also become less user-friendly and turn away new and existing users.

The potential effects of the DSM Directive on platforms and users can be further understood through the EU court case *SABAM v. Netlog*. SABAM is an enterprise representing creative artists and publishers in the music industry. In 2009, SABAM sued Netlog, a social media network, arguing that “users were sharing the copying protected work of its clients and making the work publicly available without permission or compensation” (Columbia University). Although SABAM did not win the case, it would have required Netlog to impose content filtering algorithms on users’ contents to “prevent further IP infringements by its users” (Columbia University). The court determined two key effects that would be caused by content filtering. First, implementing filtering content would directly limit Netlog’s ability to do

business. The system would require a “complicated, costly, permanent computer system,” which was not aligned with the existing copyright law that ensures that enforcing IP rights would not be overly burdensome (Judgement of *SABAM v. Netlog NV* 2012). Second, the court determined that content filtering would “violate the fundamental rights of Netlog’s users, namely their right to the protection of their personal data and their freedom to receive or impart information” (Judgement of *SABAM v. Netlog NV* 2012 p7). Although Article 17 does not explicitly state the use of content filtering, it is reasonable to assume that some form of content filtering would be employed due to the exceedingly large volume of copyrighted works that will be requested to be removed by rights holders. As mentioned previously, filtering has strong correlations to content monitoring, which has been seen as a limitation on individuals’ freedom to share and access online content. For this reason, filtering has been referred to as a form of censorship.

Restrictions on Internet Speech

Content algorithms are important because they indirectly manage how users discover and interact with content. Algorithms are used to categorize and recommend relevant content to users to improve engagement with the platform. Therefore, platforms have a significant power “in shaping the Internet culture for users by shaping the content they see on their . . . feeds” (Beykont, 2020 p19). To comply with the DSM Directive, social media companies will need to employ new algorithms to restrict content that users can submit and view, which will fundamentally change how individuals can express themselves over the Internet. Although the DSM Directive will return some of the control over copyrighted materials to the rights holders, users that incorporate those materials in their own expression will inevitably be caught in the crossfire.

Image recognition, aided by artificial intelligence, has come a long way, but there is an inevitable risk for algorithms to mislabel new content. Original works may be mislabeled as copyrighted material and unfairly removed. Conversely, copyrighted material may slip through filters and not be removed. For example, video content recognition has been studied as a way of identifying child-friendly content. The existing YouTube Kids algorithm uses “meta-data and community feedback to filter the videos” (Alghowinem 2018 p305) but unsafe content regularly bypassed YouTube filters. A combination of video, audio, and transcription analysis has promising results, but limitations in computer vision, machine listening, and random sampling were identified as weaknesses of the approach (Alghowinem 2018 p305). Assuming that these limitations are persistent, engineers and platform providers will need to take into account computational time, thresholds, and effectiveness when implementing the filtering algorithms.

In response to the possibility that infringing content may fall through the filter, Article 17 builds in some flexibility for platforms and engineers to fine-tune their algorithms through its explicit notion of “best-effort” takedown. The best-effort approach replaces Article 13’s strict liability for platforms. However, finding a middle ground is exceptionally difficult given the vagueness of the directive. Algorithm engineers and platforms will need to decide how to best flag content for removal. Tuning filtering algorithms too far in favor of users risks liability and fines from the government or copyright holders if they result in too many false negatives. On the other hand, algorithms that use a more stringent threshold for approval may prevent users from uploading content. The higher volume of false positives would unfairly limit users’ free speech. It is reasonable to believe that companies would choose to be overly cautious as to not be overburdened by fines, copyright claims, and lawsuits. Given the difficulty in distinguishing parody, criticism, and commentary from copyright infringement by humans, the elimination of

false positives is likely not positives. Compounded with differences in jurisdiction and local laws, tuning presents a daunting challenge for social media companies.

Conclusion

The Internet has fundamentally changed how people interact and has been critically influential in enhancing free speech and culture. However, while fostering a democratic environment where users easily publish and retrieve content and information, the Internet has directly challenged existing copyright law that was intended to protect creators. The conflict between the rights holders and the platforms over the value of their content threatens to disrupt the public ecosystem that consumers have grown to enjoy. Although the Directive on Copyright in the Digital Single Market seeks to resolve this conflict, it invariably puts users' Internet speech at risk of restrictions and censorship. As the deadline for implementing the copyright directive is June 2021, platform owners and software engineers must determine the best decision that serves their stakeholders' best interests. In the copyright debate, "the balancing act . . . is to provide sufficient incentive for creators and innovators and at the same time foster the dissemination of creations and innovations" (Boyer, 2018). Although the current copyright law appears to unfairly favor big tech social media platforms, the solution should take care not erode the free speech and culture of the Internet for individuals.

(3156 words)

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