The impact of the EU’s copyright directive on the digital economy

Pierre Beyssac, Eriomem

Abstract:
The European parliament has adopted the copyright directive, which is now being transposed into French law. Article 17, which requires a filtering of uploaded contents, is controversial. It is supposed to restore a balance in the sharing of income between the giants of the Internet and copyright-holders. However implementing it will be costly and erect an entry barrier for small firms, thus penalizing the whole European ecosystem of digital technology.

Following a long procedure, the European Parliament voted the EU directive on “copyrights in the Digital Single Market” in March 2019. This directive intends to adapt copyright legislation to our times while rebalancing the “sharing” of value between the Internet giants and copyright-holders (such as the press, music, film and publishing industries).

Two articles are devoted to this objective. While Article 15 (formerly 11) provides for royalties to be paid to publishers on hyperlinks accompanied by short excerpts of newspaper articles, Article 17 (previously 13) requires the ex ante filtering by any “online service provider” for sharing contents “which it organizes and promotes for profit-making purposes” (under the terms of Article 2). This article thus creates the legal obligation to keep a black list.

I shall focus on Article 17, which is more difficult to implement than Article 15. After recalling the role of copyright collectives (organizations that license copyrights, and collect and distribute royalties on behalf of rightholders), I shall examine the difficulties and try to assess the costs of enforcing this article.

Copyright collectives

French copyright collectives (sociétés de perception et de répartition des droits, SPRD) collect most of the royalties for copyright-holders. They expect from this directive leverage for negotiating licenses and, consequently, additional income from licensing fees. They have been this directive’s major backers.

The most influential copyright collective in France is SACEM (Société des Auteurs, Compositeurs et Éditeurs de Musique). It collects the most royalties: €970 million in 2017 (2.1% more than in 2016), of which €84 million from the Internet (+7.9%) and €96 million (+15.2%) from fees on private copies due on telephones and mobile data storage devices (memory cards, hard disks, USB flash drives, etc.). It redistributes €26.5 million to cultural events (in particular festivals), thus buttressing its friendly relations with local elected officials. There is also the SACD (Société des Auteurs-Compositeurs Dramatiques), which collected royalties amounting to €228.6 million (+1.8%) in 2017. I might also mention the €112.3 million (+2.7%) collected in 2017 by SCAM (Société Civile

---

1. This article, including quotations from French sources, has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor’s approval, completed a few bibliographical references. All websites have been consulted in October 2019.


des Auteurs Multimédia). Like the others, this copyright collective for multimedia artists backed the directive and applauded its adoption on 26 March 2019. However it changed its tune when Article 15 was transposed into French law. Its press release of 9 May 2019 declared that “collective management is imagined only for the profit of publishers”.

Even before its adoption, copyright holders did not unanimously agree on Article 17. Those in cinema and sports soon broke ranks once they felt that it only benefitted big online platforms.

**Content-recognition systems for detecting similarities**

Systems for automatically detecting similarities, which people are unable to do systematically, are necessary for enforcing Article 17. These systems recognize the formats used and extract elements characteristic of the contents to be protected (a sort of electronic fingerprint). A content to be protected can thus be detected, even if it has been significantly altered (e.g., a cropped photograph or the music accompanying a video of a family reunion or of a play by an amateur troupe).

A content-recognition system is costly to develop and use. It has to be self-made or else acquired on the market under a license. Since none of these systems are free of fees or royalties, using them adds to costs.

Furthermore, it is hard to gauge the quality of the findings (fake positives or negatives) made by these algorithms, mainly for reasons implicit in the foregoing remark: the algorithms are proprietary and access to the source code is restricted. There is also another reason: this technology relies on processes that are not systematically predictable.

Content-recognition has another shortcoming: rightholders have to provide the originals or excerpts of the contents that they want to protect. This is hard to apply on a large scale given the huge number of contents and of creators and other stakeholders.

Content-Id, the best-known system of this sort, is used on the video-sharing platform Youtube. To benefit from it, rightholders have to provide the videos to be protected or excerpts from them. Under Article 17, this is to take place under a license between the rightholder and the website. Three options are then proposed when a user tries to upload a video with contents to be protected: block the video; monetize it (advertising); or obtain data about views of the video (e.g., the countries where it is popular). According to Google, Content-Id has already served to pay out several billions of dollars. This system covers hundreds of millions of videos. Bruce Benamram, a French YouTuber, who had one of his videos unduly blocked, explained in detail how complaints are managed from the viewpoint of rightholders and how this method favors big organizations with large catalogs more than small creators.

When there is no licensing agreement, websites are to manage a black list to keep down contents that the rightholder has not authorized for uploading (if he has filed a complaint). Without a licensing agreement, even a website (such as a social network) with services only for sharing contents (other than works of cinema and music) has to adopt costly technical measures.

---


The costs of implementation: Filtering tools

The impact statement on the EU directive⁸ cites an example of the cost of subscribing to Audible Magic, a content-recognition service for audio files: €0.18/transaction, which amounts to €900/month for a small website with 5000 transactions/month. A transaction might simply be the uploading of a video or audio file to a comment posted on a social network. So, the costs are prohibitive. Small websites will inevitably be pushed to refuse multimedia files.

Moreover, the cost of developing Content-Id was, according to Google, more than $100 million,⁹ an amount far beyond the means of most European firms in this sector.

In France, INA (Institut National de l’Audiovisuel) has its own content-recognition technology for videos: Signature.¹⁰ It has been placed on the market as software or an online service. The costs of designing and using it have not been made public. The video website Dailymotion has been mentioned by INA as a user of its Signature, but by the EU impact statement as a client of Audible Magic.

Qwant, is planning to launch a public platform of “decentralized, free, open-source” contents and form a partnership with SACEM. All services subject to Article 17 would be able to consult this platform.¹¹ The French company has not released information about the costs and timeline for developing, this platform, but these will probably amount to dozens of man-years and millions of euros. Qwant already has a search engine for images: QISS (Qwant Image Similarity Search), based on deep learning (neural networks). However it has to be recalibrated for this new purpose; and procedures have to be added for videos and music. Qwant’s activity in this field is paradoxical since it is not concerned with Article 17. It also wants to pay to the press 5% of its sales under Article 15 on news services.

Eriomem, another French firm, has announced outright that it is abandoning its cloud storage activities since the investment would not be worthwhile in such a highly competitive field, with rival services like Amazon S3, which benefits from economies of scale for amortizing development costs.

Behind its apparent opposition to Article 17, Facebook has told European lawmakers that it prefers filtering technology, thereby confirming that the new directive raised no qualms for it. Facebook uses, in particular, Audible Magic, probably at a “wholesale” price, i.e., lower than the prices cited in the impact statement on the directive.¹²

In conclusion, few firms now have the tools needed for content-recognition. Freeware developments are far from certain given the large number of necessary components. This is not within reach for a single player. Most firms will use products and services placed on the market by US firms, thus, once again, making European industry dependent.

---

An additional cost: Managing black lists

Apart from the technical factors already pointed out, Article 17 also brings along indirect costs due to the management of exceptions and errors. These costs will be shifted onto Internet services, creators and users.

First: the risk of OVERBLOCKING, i.e., blocking contents that do not infringe copyright law (e.g., an abusive registration by a presumed rightholder) or that benefit from an exception (memes, satire, etc.) even though the algorithms signal them as contents to be protected. Furthermore, black lists might fall behind and not be up to date (as in the case referenced in note 7). Overblocking might also happen in other contexts related, for example, to administrative (police) procedures for blocking a DNS or to demands from authorities to withdraw certain contents.

Secondly: the risk of UNDERBLOCKING, i.e., failing to block contents that should be protected. Recordings have a complicated history, and many contents have never been digitized by their rightful owners. To reduce the occurrences of underblocking following a first complaint, Article 17 has introduced a stay-down provision (for keeping the recording offline). This entails keeping a blacklist so that the website not be held liable.

Complaint procedures are burdensome and not very reliable. All cases of over- or underblocking require human, even legal, interventions. Placing a content on a black list might require manual verification (an onerous, contingent act) in order to reduce the rate of false positives, notwithstanding that not all of them will be detected.

And now?

The directive is being transposed into the law of member states. The French Ministry of Culture wants to be a leader and complete this transposition before 2020. To do so, it will have to deal with all these problems.

Contrary to what some say, small and medium-sized firms can fall under the scope of Article 17, even when none of their income comes from using contents to be protected under the directive. This amounts to erecting an entry barrier to this market where the GAFAM firms already have the necessary technology. User-produced contents might be bluntly censored, as in the case of short excerpts or contents reused in satires that benefit from an exemption. Furthermore, services risk not being created or vanishing, thus placing a serious competitive handicap on developing a European ecosystem that can measure up to the American giants. Current French and European stakeholders in the digital realm do not carry enough economic weight to make themselves heard by lawmakers, unlike the copyright collectives, which rightholders have long preferred as their representatives.

Instead of providing European industry with a competitive advantage, the copyright directive is going to place it in an unfavorable position in relation to the competition. It might even be forced to use its rivals’ content-recognition systems, thus making it even more dependent on them. Unfortunately, the EU report on the directive’s impact focused on royalties and failed to examine the effects on services in the information society.

The law should lay down general principles. Article 17 stipulates a limited list of exceptions. These are for existing services whose backers carry enough political weight to have them listed as exceptions: Wikipedia, DevOps software, and classified ad websites, etc. But have we not nipped in the bud the services and uses that, not yet known (unlike those already mentioned), have nobody to speak up for them?

---
