

"This Video is Unavailable"

Analyzing Copyright Takedown of User-Generated Content on YouTube

by **Kristofer Erickson and Martin Kretschmer***

Abstract: What factors lead a copyright owner to request removal of potentially infringing user-generated content? So-called "notice-and-takedown" measures are provided in the United States under Section 512 of the U.S. Copyright Act (as amended by the Digital Millennium Copyright Act 1998) and enabled in the European Union under the Directive on Electronic Commerce (2000/31/EC). While the combination of limiting liability ("safe harbor") and notice-and-takedown procedures was originally conceived as a means of balancing innovation with the interests of rightholders, there has been limited empirical study regarding their effects. This research investigates, for the first time, the factors that motivate takedown of user-generated content by copyright owners. We study takedowns within an original dataset of 1,839 YouTube music video parodies observed between January 2012 and December 2016. We find an overall rate of takedowns within the sample of 32.9% across the 4-year period. We use a Cox pro-

portional hazards model to investigate propositions from rightholder groups about the factors that motivate takedowns: these include concerns about commercial substitution; artistic/moral concerns; cultural differences between firms; and YouTube uploader practices. The main finding is that policy concerns frequently raised by rightholders are not associated with statistically significant patterns of action. For example, the potential for reputational harm from parodic use does not appear to predict takedown behavior. Nor does commercial popularity of the original music track trigger a systematic response from rightholders. Instead, music genre and production values emerge as significant factors. We suggest that evolving policy on intermediary liability - for example with respect to imposing filtering systems (automatically ensuring "stay-down" of potentially infringing content) - should be carefully evaluated against evidence of actual behavior, which this study shows may differ materially from stated policy positions.

Keywords: Copyright; parody; notice-and-takedown; fair use; YouTube; music industry

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A. Introduction

1 When Internet users combine, remix, mash-up or parody existing cultural materials, they may infringe the copyright of the owners in the original work. Two sets of legal norms interact in determining the availability of such user-generated content on Internet platforms.¹ The first set are based on international agreements, which define the exclusive rights under copyright law and restrict possible exceptions that may permit derivative re-use.² The second set consist of rules about the liability of intermediaries on whose services such materials may be communicated. While the latter rules vary by jurisdiction (and can be copyright-specific, or applicable to issues such as terrorism, hate speech, or sexual abuse), in practice the great majority of global requests for removing infringing content are based on the formal notice-and-takedown regime established by the United States Digital Millennium

Copyright Act (DMCA 1998).³

2 The owner of a copyright work may tolerate a derivative use or may act to remove infringing content, bearing resource costs associated with issuing a notice. Due to the complexity of the media ecosystem in which user-generated content is produced, rightholders are faced with a difficult decision about whether and when to act. Particularly in the case of owners of large catalogues of material (such as major record labels), the cost of policing and requesting removal of infringing content may exceed the benefits of doing so. Rightholders must decide which content they will expend resources protecting, and which types of potential infringement they should most aggressively pursue. For example, should mash-ups or parodies be approached in the same way as incidents of outright piracy? If not, where do copyright owners draw the line and what factors in particular trigger a removal request?

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1 Definitional note on “Internet platforms”: The safe harbor for internet intermediaries is defined in the United States under Section 512 of the U.S. Copyright Act (as amended by the Digital Millennium Copyright Act – DMCA 1998) for “Online Service Providers” and in the European Union under the E-Commerce Directive for “Information Society Services”. Both legislations were conceived in a pre-social media world where the Internet Service Provider (ISP) was the technological orientation point. In recent regulatory efforts, the European Commission has used the term “online platforms” (Commission Communication: Stepping up the EU’s efforts to tackle illegal content online, MEMO-17-3522, Brussels, 28 September 2017). Jurisprudence has found it easier to develop the wider concept of internet intermediaries in the context of Article 11 IPRED (IPR Enforcement Directive 2004/48/EC) and Article 8(3) InfoSoc Directive (2001/29/EC). The Court of Justice of the European Union (CJEU) defines an intermediary indistinctly for online and offline contexts: “for an economic operator to fall within the classification of ‘intermediary’ [...], it must be established that it provides a service capable of being used by one or more persons in order to infringe one or more intellectual property rights, but it is not necessary that it maintains a specific relationship with that or those persons” – see *Tommy Hilfiger* (C-494/15, at 23) and *UPC Telekabel* (C-414/12, at 32 and 35).

2 According to Art. 9(2), Berne Convention for the Protection of Literary and Artistic Works 1886, Art. 9(2) exceptions to the exclusive rights in national laws are required to be specific, non-prejudicial to the author, and not in conflict with normal exploitation (the so-called “three-step-test”). The latest version of the Berne Convention is the Paris Act 1971, as amended in 1979. All EU countries are members, and the US acceded to Berne in 1989. In 1994, the Berne Convention (with the exception of Art. 6bis on “moral rights”) was incorporated into the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS). The World Trade Organization (WTO) currently has 164 member countries (as of 29 July 2016), making Berne copyright norms binding on most of the world.

3 In 2012, some rightholders were opposed to a UK Government proposal to introduce a new copyright exception for the purposes of parody, caricature and pastiche. They argued that such an exception would potentially cause substitution, deprive them of licensing revenue and damage the artistic integrity of works. Here, we analyze the pattern of takedowns over a 4-year period, to test whether rightholders act(ed) in ways consistent with policy statements. Do economic or moral rights concerns guide rightholder takedown behavior? And what changes, if any, arise from the introduction of a new copyright exception?⁴

4 Our analysis of rightholder behavior complements and offers a new perspective on recent empirical work assessing the appropriateness of notice-and-takedown procedures as a means of balancing the interests of rightholders, innovative services and citizens.⁵ We find that our efforts to discern

3 According to Google’s transparency report, Google has received in total more than 3bn copyright takedown requests (available at: <<https://transparencyreport.google.com/copyright/overview>>, last accessed 20 October 2017). Personal communication from a senior counsel of Google indicated that 99% where submitted as a request using the DMCA formalities. This was regardless of whether the country in which the request was filed prescribed these formalities or had any safe harbor laws. See the Canadian case of *Google Inc. v. Equustek Solutions Inc.* (2017 SCC 34) for forensic details of Google’s takedown procedures.

4 Digital literacy is frequently characterised as a requirement for successful engagement in 21st century political life. See W.L. Bennett, *Changing citizenship in the digital age, in Civic life online: Learning how digital media can engage youth* (MIT University Press 2008), pp. 1-24.

5 Urban, Karaganis and Schofield found that automated takedown systems leave little room for human review, with nearly 30% of a randomized sample of 1,826 takedown requests during a six months period in 2013 assessed as being of questionable validity. J. Urban, J. Karaganis, B. Schofield.

rightholder behavior are complicated by the existence of automated and opaque systems for detection and removal of content. This makes it difficult to study and evaluate takedown behavior.

- 5 Our empirical approach consists of a longitudinal cohort analysis of 1,839 user-generated music video parodies hosted on video sharing platform YouTube. The data were initially collected in January 2012 as part of a consultation carried out by the UK Intellectual Property Office.⁶ While the original research was designed to assess the economic effects of introducing a copyright exception for parody in the UK (the political context of the Hargreaves Review⁷ is explained in section C below), the further assessment of parody in the context of "takedown" practices offers an opportunity to take into account wider cultural, social and political features of those videos. Parody is controversial, because while it is recognized as engaging fundamental norms of freedom of expression, the creation of a successful parody necessarily draws upon and may copy aspects of an original work. This makes our sample unrepresentative of user-generated content as a whole, but usefully relevant to the study of takedown behavior.⁸

Notice and takedown in everyday practice. Project report 2016. (Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2755628>, last accessed 29/09/2017). See also P. J. Heald, How Notice-and-Takedown Regimes Create Markets for Music on Youtube: An Empirical Study, 83 UMKC L. Rev. 313, 328 (2014) and D. Seng, "Who Watches the Watchmen?" An Empirical Analysis of Errors in DMCA Takedown Notices (2015), available at SSRN: <<https://ssrn.com/abstract=2563202>>, last accessed 20/10/2017).

- 6 The parody research study consisted of three distinct *Independent Reports for the UK Intellectual Property Office* (2013) commissioned in the context of the implementation of the Hargreaves Review of Intellectual Property and Growth (2011): (1) K. Erickson, Copyright and the Economic Effects of Parody: an empirical study on music parody videos on YouTube; (2) D. Mendis, M. Kretschmer, The Treatment of Parodies under Copyright Law in Seven Jurisdictions: a comparative review of the underlying principles; and (3) a synthetic summary applying the identified legal factors to the empirical findings, thus offering a range of policy options. The studies were used in the UK Government's preparatory documents for legislation implementing the recommendation (Hargreaves Review Impact Assessment, BIS1057, 2012, Copyright exception for parody, p. 10).
- 7 I. Hargreaves, *Digital Opportunity - A Review of Intellectual Property and Growth* (2011) (Available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32563/ipreview-finalreport.pdf>, last accessed 20/10/2017)
- 8 *Campbell v. Acuff-Rose* 510 U.S. 569 (1994), at 588: "When parody takes aim at a particular original work, the parody must be able to "conjure up" at least enough of that original to make the object of its critical wit recognizable". Cf. Taking Forward the Gowers Review of Intellectual Property: Proposed changes to copyright exceptions, Newport: Intellectual Property Office (2008); R. Deazley, Copyright and Parody: Taking Backward the Gowers Review?, *The Modern Law Review*, pp. 785-823 (2010).
- 6 The initial sample of 1,839 parody music videos was obtained by searching a list of the top-charting music tracks in the UK for the 12 months preceding January 2012. Along with information such as the number of views, parodic intent and production values present in the user-generated parodies, the research team also recorded the uniform resource locator (URL) of each parody video. An extended group of researchers later revisited URLs of user-generated videos at two intervals: January 2013 and December 2016.⁹ At each interval, the original URLs were checked to ascertain whether the video was still accessible on the YouTube website and if not, the reason for its removal (where this was possible to determine).
- 7 The analysis of information about both parody videos and original works enables examination of the relationship between risk of takedown and features of user-generated parody videos, such as its expressive content, genre, production values, and country of origin. This offers for the first time a window into takedown behavior in the context of stated policy concerns of rightholders.
- 8 The longitudinal aspect of the study enables us to further explore the rationales underlying rightholder opposition to policy change. An exception for "caricature, parody or pastiche" was introduced into UK Law with effect from 1 October 2014, in the middle of the longitudinal data collection.¹⁰ If rightholders were not rigorously and systematically protecting their copyright from parodic treatment prior to the exception, this weakens public policy arguments opposed to such an exception. If they did not significantly change behavior after introduction of an exception, it raises questions about the salience of national copyright law for regulating online expression.
- 9 The paper is structured as follows. In Section B, we provide an overview of the technical and legal context, explaining the emergence of YouTube (and its content identification technology) and the status of user-generated services under "safe harbor" regimes (which have developed into a dominant mode of Internet regulation, limiting liability of intermediaries under certain conditions).
- 10 Next, we offer an analysis of the introduction of an exception for parody into UK law, following the Hargreaves Review of 2011 that recommended a suite of copyright reforms aimed at encouraging

9 We are grateful for research assistance from Hossein Hassani and Andrea Varini at Bournemouth University in collecting the first wave of takedown data in 2013. The second wave of takedown data was added in December 2016 by Sabine Jacques and Morten Hviid at the University of East Anglia.

10 The Copyright and Rights in Performances (Quotation and Parody) Regulations 2014 No. 2356.

innovation and growth. In the UK government's evidence-gathering consultation on the proposal to create a new "fair dealing" exception for caricature, parody or pastiche, certain music rightholders were opposed to the plan, arguing that it undermined their economic and creative interests. By analyzing these policy arguments from rightholders, we identify various propositions about expected behavior.

- 11 Section C identifies and categorizes factors that may influence takedown of parody videos. The sample selection, variables and analysis methods are explained. We broadly classify four groups of factors that could influence a takedown: (1) commercial factors (including factors intrinsic to the original commercial work and its parodies); (2) moral/artistic factors; (3) cultural factors; and (4) behavioral factors related to the activities of the parodist. A Cox proportional hazards analysis model is estimated to investigate the impact of parody characteristics on the likelihood of removal over time, identifying those factors that are statistically significant.
- 12 In the concluding discussion we explore specifically whether and how music rightholders used notice-and-takedown procedures to protect their interests, and whether takedown behavior on YouTube is consistent with public opposition to a fair dealing parody exception in the UK.
- 13 This research is the first attempt at a longitudinal study of takedown for a cohort of user-generated works. The findings make an important advance in the empirical understanding of takedown behavior. Without understanding how current notice-and-takedown procedures are being used, it is impossible to project how future policy reforms might alter the online communication landscape. The findings allow us to evaluate legislative pressure to prescribe automated notice systems and pre-emptive removal (filtering on the basis of content recognition technologies, plus "stay-down" obligation once an initial takedown request has been made).¹¹

11 British Phonographic Industry, "Urgent Reform" Needed to Notice and Takedown as Removal of 200 Millionth Illegal Search Result from Google Approaches, 24 March 2016. Available at: <<https://www.recordoftheday.com/news-and-press/urgent-reform-needed-to-notice-and-takedown-as-removal-of-200-millionth-illegal-search-result-from-google-approaches>>, accessed 1 July 2017. Stakeholder letter, Creative Sector shows united front to tackle the value gap: "UUC platforms have become major distributors of creative works - all while refusing to negotiate fair copyright licenses, if at all, with the right holders", 4 October 2017. Available at: <<http://impalamic.org/content/creative-sector-shows-united-front-tackle-value-gap>>, accessed 20 October 2017.

B. YouTube as a Research Site: Technical and Legal Context

- 14 Founded in 2005 by former employees of the online payment system PayPal, YouTube is the world's most visited online streaming video platform. YouTube was initially acquired by Google in 2006 for USD\$1.65 billion and since that time has integrated contextual advertising and search technology from its corporate owner. As of July 2017, the company claimed 1 billion users, making up a third of total global Internet traffic.¹² Despite the huge visitorship attracted by videos on the website, YouTube has not published public information about its profitability. In 2009 the New York Times estimated that YouTube's revenues might fall anywhere in a range from \$200 million to \$500 million USD per year, with the company reported to have reached profitability in 2011.¹³ In a 2016 interview with Fortune, CEO Susan Wojcicki stated that "the company is still in investment mode" and may not currently be profitable due to technological investment and expansion into foreign markets.¹⁴
- 15 Initially, YouTube content consisted almost entirely of user contributions, and was considered emblematic of the "web 2.0" business model, leveraging user-generated content and social interaction to attract a user base.¹⁵ Copyright infringement was initially a significant problem for the platform. The availability of content owned by third parties made YouTube the target of copyright infringement lawsuits, notably by cable provider Viacom in 2007.¹⁶ In Europe, YouTube was sued by RTI in 2008¹⁷ for hosting clips and episodes of the Italian Big Brother TV program and in France by TF1 in 2012¹⁸ for hosting clips of programs belonging to the French broadcaster. In almost all cases (with the exception of the Italian RTI case) YouTube has enjoyed immunity from liability for infringement by its users because of its status as an information service provider (see next section for an explanation of so-called "safe harbor" provisions

12 YouTube in Numbers <<https://www.youtube.com/intl/en-GB/yt/about/press/>>, accessed 2 July 2017.

13 Tim Arango, As Rights Clash on YouTube, Some Music Vanishes (New York Times, 22 March 2009), available at: <<http://www.nytimes.com/2009/03/23/business/media/23warner.html>>, accessed 1 July 2017.

14 Leena Rao, "YouTube CEO Says There's 'No Timetable' For Profitability", available at: <<http://fortune.com/2016/10/18/youtube-profits-ceo-susan-wojcicki/>>, accessed 29 June 2017.

15 J. Burgess and J. Green, *YouTube* (2009 Polity Press).

16 *Viacom International, Inc. v. YouTube, Inc.*, No. 07 Civ. 2103.

17 *Reti Televisive Italiane contro YouTube*, Trib. Roma, 24 novembre 2009, n.54218/08 (It.).

18 *TF1, TF1 Video, TF1 droits audiovisuels, LCI and e-TF1 v. YouTube* (RG: 10/11205), Tribunal de Grande Instance, Paris, 29 May 2012.

in the US and EU). In most cases, courts have found that due to the volume of material processed by platforms such as YouTube, service administrators cannot be held liable for unauthorized use without obtaining specific knowledge of infringement. Claimants have been pointed to the notice-and-takedown mechanism as a remedy for the removal of infringing content on sites like YouTube.

- 16 Over time, conflict with rightholders has led YouTube to develop more sophisticated measures for preventing the uploading of copyright material in the first place and empowering rightholders to locate and remove material hosted by the website via its fingerprint matching technology called ContentID. This system works by comparing existing and newly-uploaded contents to an “index file” of video or audio material provided by a rightholder. If a user-uploaded video is matched to an audiovisual work in the reference file, the appropriate rightholder is notified. Rightholders who participate in the ContentID system may then choose to i) have the video removed, ii) leave the video accessible while muting the infringing audio, iii) leave the video up and monetize it to collect a share of the advertising revenue, or iv) track it and do nothing.¹⁹ Rightholders may issue their own takedown notices independently to the website even if they do not participate in ContentID.
- 17 While YouTube has strengthened its ability to respond to rightholder complaints, considerable amounts of commercial content has appeared on the platform through partnerships with traditional and emerging media businesses. One of the most significant of these partnerships is the VEVO music channel, which hosts content licensed from Sony Music Entertainment, Universal Music Group, Abu Dhabi Media and EMI. The participating music labels benefit from a revenue share model that divides the proceeds earned from contextual advertising, pre-roll video advertising, merchandise, and iTunes music downloads. VEVO, along with similar channels controlled by Warner music, Sony BMG and Universal Music Group, have proven extremely popular; data compiled by ratings research company ComScore shows that commercial music videos remain the most popular type of content on the platform, accounting for more than 180 million unique monthly viewers in the USA, and making up half of the largest channels in the top ten by viewership.²⁰

- 18 The popularity of commercial music video content, combined with the large volume of user-generated content on YouTube, makes it a compelling site to study the effects of derivative use such as parody. YouTube’s business model, which depends equally on traditional and user-generated content, locates it in a precarious position; on one hand needing to placate rightholders concerned about the integrity and commercial viability of their licensed content, and on the other hand requiring participation from users who demand the ability to use and remix copyright material in new ways. This dilemma remains a source of conflict between the various user communities and content creators on the service, with copyright law providing a general framework in which conflicts are resolved.

C. Status of online intermediaries

- 19 We now review briefly the legal status of online intermediaries under copyright law and examine the notice-and-takedown mechanism that rightholders can employ to remove unwanted infringing content from services such as YouTube.
- 20 A so-called “safe harbor” for “Online Service Providers” that offers immunity from claims to copyright infringements under certain conditions was first introduced in the United States under Section 512 of the U.S. Copyright Act (as amended by the Digital Millennium Copyright Act – DMCA 1998).²¹
- 21 Section 512 specifies a formal procedure under which service providers need to respond expeditiously to requests from copyright owners to remove material. Rightholders who wish to have content removed must provide information “reasonably sufficient to permit the service provider to locate the material” (such as a URL) and warrant that the notifying party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed. The practice is known as “notice-and-takedown”. Importantly, “counter notice” procedures are also specified under which alleged infringers are notified that material has been removed and can request reinstatement.
- 22 Similarly, under the EU Directive on Electronic Commerce (2000/31/EC) hosts of content uploaded by users will be liable only upon obtaining knowledge of the content and its illegality. But unlike the DMCA, the E-Commerce Directive does not regulate the procedure of receiving the necessary knowledge but leaves this up to the Member States. Husovec (2017) summarizes the position concisely: “The case-law of the CJEU only requires that the perspective

19 YouTube, How Does ContentID Work? <<https://support.google.com/youtube/answer/2797370?hl=en-GB>>, accessed 1 July 2017.

20 ComScore, Top 10 YouTube Partner Channels By Unique Viewers February 2016 <<https://www.comscore.com/Insights/Rankings/comScore-Releases-February-2016-US-Desktop-Online-Video-Rankings>>, accessed 2 July 2017.

21 See 17 U.S.C. §§ 512, 1201-1205 (2000).

of a ‘diligent economic operator’ is decisive. The constructive knowledge can be obtained in any situation, including, as a result of an investigation undertaken on the provider’s own initiative, as well as a situation in which the operator is notified of the existence of such activity or information, but perhaps not sufficient to constitute actual knowledge.”²²

- 23 In the majority of cases dealing with copyright infringement, YouTube has been deemed by courts in the USA and Europe to fall within the definition of a Service Provider benefitting from exclusion from liability for copyright infringement. Both the DMCA and the E-Commerce Directive place the burden of responsibility on rightholders to identify infringing material and notify the service provider of its presence. In order to comply with these provisions across different jurisdictions, YouTube has invested significantly in developing an online system to receive and respond to notice-and-takedown requests from rightholders. At the same time, the platform also discourages users from uploading infringing material, and polices remove repeat infringers from their revenue-sharing partnership status and accounts.
- 24 By placing the burden of policing copyright infringement on the shoulders of individual copyright owners rather than on network service providers, jurisdictions such as the USA and the EU, which have adopted these safe harbor provisions aim to enable early-stage innovation on the Internet, limiting the costs of copyright enforcement. However, the present balance of responsibility has fallen under criticism. Rightholders have protested that this legislation burdens them with disproportionate costs, and that intermediaries – possessed of access to digital technologies and user data – should be obliged to do more to proactively find and eliminate infringing content. On the other hand, online free speech advocates have protested that the notice-and-takedown mechanism is open to abuse by parties who wish to suppress unpopular and dissenting speech, by using the copyright infringement claim as an excuse to force intermediaries to remove content.²³ While notice-and-takedown is an effective measure to stop direct piracy of content, neither rightholders nor Internet intermediaries have developed due process for making judgments about “fair” derivative or transformative uses. Understaffed and risk-averse, online platform operators may simply choose to comply with a takedown notice, rather than risk safe harbor protection by standing up for a user who may

indeed benefit from a copyright exception.

- 25 Takedowns of apparently fair dealing derivative works have proven particularly controversial in recent years. Under section 512(c) of the DMCA, a takedown notice must contain a statement by the copyright holder of a good faith belief that there is no legal basis for the infringing use identified by the complaint. Subsequently, US courts have found that complainants may have an obligation to consider fair use before issuing such takedown notices, or face liability for misrepresentation of infringement. Currently, users who are unhappy about the removal of their videos from YouTube may file a counter-notification consisting of a warranty that they are legally entitled to make use of the work, however, small-scale users may be deterred from doing so because of confusion or fear of further legal action by rightholders.²⁴
- 26 In the case of *Lenz v. Universal Music Corp.*,²⁵ a California District Court upheld a complaint that the music label had failed to take into account the fair use of material when it issued a takedown notice to YouTube over a video that the complainant had uploaded to the service. The video, a short clip of the complainant’s toddler dancing, triggered the takedown request because the song playing in the background was Prince’s *Let’s Go Crazy*, owned by Universal Music. The case highlighted an important feature of the existing notice-and-takedown mechanism: dependency on automated “fingerprinting” technology used by rightholders to locate infringing material (in this case by Prince) can result in false positives that would otherwise be covered by fair use. A second issue highlighted by this case is that the whim of one artist can generate thousands of takedown notices while derivative uses of other artists’ work remains untouched²⁶. There is no consistently applied set of rules governing the removal of derivative online use of copyright work.
- 27 The proposed EU Directive on Copyright in the Digital Single Market (COM(2016) 593 final, 14.9.2016) introduces a new provision (Article 13) that will create (under some readings) an obligation for information service providers to prevent the availability of infringing works in the first place. This new “notice-and-stay-down” obligation has

22 M. Husovec, *Injunctions Against Intermediaries in the European Union*, Cambridge University Press (2017), p. 53 (analyzing *L’Oréal and Others*, Case C-324/09).

23 J. Miller, *Fair Use through the Lenz of §512 of the DMCA: A Preemptive Defense to a Premature Remedy?*, *Iowa Law Review* (2010), 95, 1697-1729.

24 Fred von Lohman, “YouTube’s Content ID (C)ensorship Problem Illustrated”, *Electronic Frontier Foundation* (2 March 2010), available online: <<https://www.eff.org/deeplinks/2010/03/youtubes-content-id-c-ensorship-problem>>, accessed 20/10/2017.

25 *Lenz v. Universal Music Corp.*, 572 F. Supp. 2d 1150 (N.D. Cal. 2008).

26 The particularly aggressive stance of Universal Music has been dubbed the “Prince Policy” due to that artist’s notoriously strict stance on online use of his work (Miller, *supra* footnote 23).

been welcomed by rightholders (in particular from the music industry) as improving their bargaining position vis-à-vis services such as YouTube. The wording of Article 13 has been criticized as a "censorship filter",²⁷ and is close to mandating general monitoring (that would be in conflict with Article 15 of the E-Commerce Directive and CJEU case law).²⁸ This remains a fast moving field of policy.

D. Parody in Copyright Policy: The UK Example

28 The original dataset of 1,839 music video parodies examined here was collected in the context of the UK Hargreaves Review in 2012. The policy consultation process provided an opportunity to gather responses from rightholders to the proposed copyright exception, enabling us to generate propositions about expected takedown behavior. This section explains the context of Hargreaves' proposals and the responses by music industry rightholders.

29 There have been numerous arguments made in support of statutory copyright exceptions for parody, such as in the UK.²⁹ The 2006 Gowers Review of Intellectual Property recommended that the government adopt such an exception on the grounds that it would promote the creation of valuable new works and reduce transaction costs by removing the need for licensing in certain cases.³⁰ In his 2011 review, Professor Ian Hargreaves similarly recommended the creation of a new fair dealing exception for parody, on the grounds that allowing unlicensed parody would generate growth for UK media industries, and would "encourage

[...] literacy in multimedia expression in ways that are increasingly essential to the skills base of the economy".³¹ Parody is understood to be a fundamental part of political and cultural life in the UK, with the Government citing its "long and vibrant tradition" in UK comedy.³²

30 While both the Hargreaves and Gowers reviews stressed the generative effects of transformative use for the creative industries, some industry groups took a strongly opposing stance toward the proposed legislation. In response to the Hargreaves Review, the Music Publishers Association (MPA) wrote:

The proposed exception for parody would undermine the integrity and moral rights of publishers and cut across their normal licensing activities, whether for the purpose of synchronization or straight forward adaptation of the lyrics or musical style. Carving out an exception which meant that "parodists" would not have to pay for comic use of musical material undermines the business model of a music publisher. (MPA 2012)

31 Distilling arguments contained in the 471 industry responses published in the Government Consultation on the Hargreaves Review, and in particular those that opposed the introduction of a copyright exception for parody, we identify three common concerns on the part of rights owners.³³

32 First, certain respondents argued that *permitted unlicensed parody would deprive rightholders of a legitimate stream of licensing revenue*. Wider economic interests such as those cited in the Hargreaves review, needed to be balanced against the threat to licensing revenue earned by rights owners for permission to make use a work, including uses that might fall under the proposed fair dealing exception for parody. The Design and Artists Collecting Society (DACS), which represents the interests of visual creators (including photographers and graphic illustrators), stated in its response to the Hargreaves consultation that, "[r]ightholders will lose an established stream of revenue from the licensing of their work for parodies which go beyond the established limitations of substantial taking and criticism and review" (DACS, 2012: 44).

27 J. Reda, When filters fail: These cases show we can't trust algorithms to clean up the internet (available at: <<https://juliareda.eu/2017/09/when-filters-fail/>>, accessed 20/10/2017).

28 *L'Oréal/eBay* (C-324/09, 12 July 2011), *Sabam/Netlog* (C-360/10, 16 February 2012). For a contrary view, see A. Lucas-Schloetter, "Transfer of Value Provisions of the Draft Copyright Directive" (March 2017, p. 19). According to Lucas-Schloetter, the prohibition on general monitoring does not apply "when the infringing content to be searched for is identified" (available at: <<http://www.authorsocieties.eu/uploads/Lucas-Schloetter%20Analysis%20Copyright%20Directive%20-%20EN.pdf>>, accessed 20/10/2017).

29 In the United States, parodies typically are considered as "fair use" under section 107 of the Copyright Act 1976. Under the fair use doctrine, factors to consider include the purpose and character (e.g. commercial/non-profit educational use), substantiality of the portion used, and the effect of the use upon the potential market. The case of *Acuff Rose Inc. v Campbell* (510 U.S. 569, 1994) established that the "transformative" nature of the parodied work is decisive: Does it add "something new, with a further purpose or different character, altering the first with new expression, meaning or message"?

30 Gowers (2006) 68.

31 Hargreaves (2011) 50.

32 Intellectual Property Office, Consultation on Copyright (2012). Available online: <<http://www.ipo.gov.uk/pro-policy/consult/consult-closed/consult-closed-2011/consult-2011-copyright.htm>>, accessed 20/10/2017.

33 For a discussion of discourse analysis method applied to consultation responses, see K. Erickson, User illusion: ideological construction of "user generated content" in the EC consultation on copyright, *Internet Policy Review* 3(4), pp. 1-19 (2014) (available at: <<https://policyreview.info/articles/analysis/user-illusion-ideological-construction-user-generated-content-ec-consultation>>, accessed 27/10/17).

33 The second argument made by rightholders in opposition to the proposed parody exception was that widespread unlicensed parodies might *compete unfairly with original works in the marketplace, either by substituting for the original, or by causing unwanted reputational damage*. These two related arguments were explored by Rogers³⁴ in a study commissioned by Consumer Focus, the UK statutory body that represents consumers across regulated markets, and they have been cited by commentators on both sides of the debate; although Rogers and co-authors note that there is an absence of empirical evidence with which to evaluate these claims. The first part of the argument, that unlicensed parody might substitute for an original work, seems unlikely given the nature of parody: the successful parodist must conjure up knowledge of an original work in an audience member's mind in order for the parody to be effective, assuming prior knowledge of the original work. There is the additional possibility that the circulation of a popular parody might stimulate consumption of an original work, when new fans of the parody are reminded of the original. The second part of the argument articulated by Rogers et al – that parody might cause reputational harm to an original – is difficult to test empirically, although there are normative questions to be raised about how far copyright protection should impede the free flow of market information regarding the quality of goods, such as that enabled by neighboring copyright exceptions for purposes of criticism and review.

34 A third argument made in opposition to the proposed parody exception in the wake of Hargreaves is that *derogatory treatment of an original by parodists could infringe on the original authors' moral rights*. Outlined in sections 77-85 of the UK Copyright Design and Patents Act (CDPA 1988), moral rights consist of the rights of an author to be identified as the creator of a work (paternity), to prevent misidentification as the author of a work, and to object to derogatory treatment of a work that he or she has authored (integrity). It is principally the latter that opponents argued could be endangered by the introduction of a copyright exception for parody. In fact, the wording of the proposed parody exception was explicitly written so that it shall not infringe on an author's moral right. Nevertheless, it is foreseeable that some authors could object to certain parodic treatments of their work and may wish to prevent transmission of such work by asserting their moral rights.

35 The arguments articulated above are largely theoretical – prior to the Hargreaves consultation

exercise, no rigorous empirical studies of the economic effects of parody existed. Much of the prior discussion of parody is either anecdotal, focusing on key cases and disputes involving single works, or represents the views of industry bodies or collecting societies (such as the Music Publishers Association and DACS, cited above). If we assume that the aggregate views expressed by collective bodies are representative of their members' economic interests as a whole, we should expect to find corresponding empirical evidence that supports those concerns expressed in the published responses to the Hargreaves review. For example, if infringement of moral rights is a major concern, we should expect to see some rightholders systematically withholding certain works from parody or objecting to certain derogatory types of parodic treatment. Similarly, if protecting work from substitution by parodic imitators is of concern, we should expect to see those parodies that attract significant viewership taken down with greater regularity. In the following section, we describe the research method used to observe rightholder behavior, using data on takedowns gathered from music videos and their related parodies on YouTube.

E. Research Design and Method

36 We initiated data collection in 2012 for the purposes of assessing the economic implications of introducing an exception for Parody into UK copyright law. The researchers sought to ascertain the quantity of user-generated parody content on YouTube and review their effect on commercial works parodied.³⁵ We used the top-100 list of monthly songs tracked by the British Charts Company to obtain a list of the 343 most popular songs released in the UK in the previous 12 months. These songs were matched with a corresponding licensed music video hosted on YouTube (such as via VEVO or other record labels' official channels). As a second step, searches for parody videos referencing those commercial works were performed by searching for “song name + parody” in YouTube's internal search engine. The researchers located 8,299 user-generated music video parodies referencing the original 343 commercial music videos. A randomly-selected sample of 1,839 parodies from within that larger population was subjected to closer analysis by human coders to determine the nature of the parody, the severity of critique, the production values used, and the extent

34 M. Rogers, J. Tomalin and R. Corrigan, The economic impact of consumer copyright exceptions: A literature review, Consumer Focus (2009), (available at: <<http://oro.open.ac.uk/25604/5/The-economic-impact-of-consumer-copyright-exceptions-Rogers-Tomalin-Corrigan.pdf>>, accessed 20/10/17).

35 See K. Erickson, M. Kretschmer and D. Mendis, Copyright and the Economic Effects of Parody: An Empirical Study of Music Videos on the YouTube Platform and an Assessment of the Regulatory Options, Intellectual Property Office 2013 (available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/309903/ipresearch-parody-report3-150313.pdf>, accessed 27/06/17).

of the original work copied. The research team also recorded the location (URL) of each of the initial 1,839 parody videos to enable future analysis.

- 37 Following the original collection of data in 2012, it was decided to observe the videos again to obtain a new perspective on "takedown" policies. For this purpose, one year after the original study, in January 2013, the team re-visited the list of parody URLs to check whether those videos were still live on the platform or whether they had been removed.³⁶ In 2016, colleagues at the University of East Anglia (UEA) collected an additional wave of takedown data based on the original sample, establishing which parody videos were still live four years later. The two research teams pooled these data together (which the UEA team then analyzed for a study on cultural diversity).³⁷
- 38 The two waves of follow-up study allowed inclusion of the additional variable of the removal of user-generated parody videos, first at one year and then at four years after they were first observed. In both waves, researchers differentiated where possible whether the takedown was initiated by a rightholder, or whether the video was removed by the uploader for unknown reasons (see Table 1).

39 **Table 1: Music video parody sample decay rate due to takedown 2012-2016**

	January 2012	January 2013	December 2016
Total Accessible	1839	1471 (79.9%)	1088 (59.2%)
Cumulative Taken down for copyright (%)	--	265 (15.5%)	606 (32.9%)
Cumulative Taken down for unknown reason (%)	--	103 (5.6%)	145 (7.9%)

- 40 When the dataset was revisited in January 2013, some 265 (15.5%) of the original 1,839 videos had been removed by a likely copyright complaint. This was ascertained by checking the notice that appeared in front of inaccessible videos. For example, blocked videos could indicate that they were "unavailable due to a copyright complaint" or "no longer available in your territory" (also due to copyright). In 2016 when researchers Jacques et al re-examined the original dataset, they found that an additional 341 videos had been removed for copyright reasons in

36 It should be noted that in all waves, researchers checked for removed videos using a UK-based IP address.

37 See S. Jacques, K. Garstka, M. Hviid and J. Street, *The Impact on Cultural Diversity of Automated Anti-Piracy Systems as Copyright Enforcement Mechanisms: An Empirical Study of YouTube's Content ID Digital Fingerprinting Technology*, SSRN 2017 (available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2902714>, accessed 27/06/17).

the intervening period after 2013. The overall yearly rate of decay after 2013 is therefore lower, but still significant, bringing the total number of accessible videos down to 1,088 from the initial 1,839. Some 145 of the missing videos were removed for reasons other than a copyright notice, likely by the uploader themselves. These videos are considered separately from the instances of copyright takedown and are treated as censored in our analysis (see below).

- 41 Building from policy arguments made by music rightholders identified in the preceding section, we propose and categorize a range of different factors that may influence whether a copyright takedown is initiated (see figure 2). The full list of variables and their parameters is provided in Annex 1. Specifically, we identify four groups of factors that could influence a takedown: (1) commercial factors (including factors intrinsic to the original commercial work and its parodies); (2) moral/artistic factors; (3) cultural factors; and (4) behavioral factors related to the activities of the parodist.

42 **Table 2: Factors that may influence takedown of parody videos**

Commercial factors	Cultural factors
Sales rank of original	Genre: rock
Parody views	Genre: Electro
Parody production values	Genre: Hip hop
Monetization on parody	Territory: UK
	Territory: USA
	Major/independent record label
Moral/artistic factors	Behavioral factors
Parody type: target	Copied sound recording
Parody type: weapon	Copied video recording
Severity of criticism	Lack of intent (mislabeled parody)
	Parodist appears on camera
	Gender of parodist

- 43 *Commercial factors.* One argument advanced by rightholders in opposition to a copyright exception for parody focused on the potential for reduced commercial revenue from loss of the ability to license to parodists. While the music industry and collecting societies do not often publish information about the frequency of licensing or the agreed terms, we can assess this claim within our study by considering commercial features intrinsic to parodies. In particular, we examine whether a parody video is accompanied by monetization in the form of pre-roll or mid-roll advertisements, and whether it was created with low or high production values,³⁸ indicating commercial quality. We also include the popularity of the parody video in our analysis, using the number of views originally measured in January

38 Production values were recorded by asking human research assistants to rate them on a Likert-style scale from 1 (lowest) to 5 (highest).

2012. Based on rightholder statements, we might expect higher rates of takedown for parody videos with higher production values and popularity, reflecting concern over substitution and potential loss of licensing revenue anticipated by rightholders. YouTube carries content of varying quality, ranging from purely amateur, non-commercial video to semi-professional and commercial video produced by entrepreneurs and firms. Since this latter group potentially derives revenue from their activities on and off YouTube, it is reasonable to expect that rightholders would target these potential licensees more readily than non-commercial users, where the likelihood of paying for use of an original work is low.

44 In addition to factors intrinsic to parodies themselves, we also consider the commercial appeal of the underlying musical work. In the current study, the feature of the original music track and video that we examine is sales popularity of the original work (based on its position and duration in the top-100 UK charts). The variable “sales rank” captures the relative position and duration of the original song on the UK top-100 music charts in 2011.

45 *Moral / artistic factors.* An additional set of arguments raised by rightholders in opposition to a parody exception related to artistic qualities of the parodies themselves. Related to the commercial factors above, one source of opposition from rightholders was the apprehension that negative parodies could impact the market for an original work by harming the reputation of the artist or the work itself. Reputational harm in the market is difficult to measure; the impact of a negative review may take years to propagate and produce an effect. Our data provide an opportunity to detect whether rightholders are concerned by reputational damage, independent of whether such damage actually materializes. Approximately 33% of the parodies in the original dataset were “target” parodies, meaning that they explicitly took as an object of ridicule the original work or its creator. By contrast, “weapon” parodies use an original piece of content to draw attention to some third-party individual or issue. We include dummy variables for both types to analyze the importance of parodic intent. If rightholders are concerned about the potential for reputational harm produced by online parody, we should expect to see that they issue more takedowns for negative “target” parodies. Another factor relates to the moral right that the original artist may have to object to a derogatory treatment of their work. It is difficult to assess whether a parody produced under a fair dealing exception such as that available in the UK could infringe the moral rights of artists. However, it is possible that moral rights concerns

drive rightholder behavior.³⁹ To explore this, we analyze a subsample of parodies containing the most explicitly negative messages (severity of critique) to test whether this has a statistically significant effect on the likelihood of a takedown.

46 *Cultural factors.* This group of factors relate to differences in the legal culture between territories, as well as differences in the creative practices of specific musical genres or businesses (music labels), which may influence the observed pattern of takedown. Since the UK did not have a statutory exception for parody until October 2014, the availability of the fair use defense to parodists in the USA may be expected to produce a difference in the level of tolerance for parodies reflecting the different legal culture of the two countries. To assess this influence, we record and include the national territory of the music publisher in our analysis, using a dummy variable for original songs originating in the UK. It has been widely observed in scholarship on media production that different mediums, and even sub-genres are characterized by differing production practices, in particular relating to tolerance of sampling or borrowing from pre-existing works.⁴⁰ To assess whether genre has an influence on likelihood of takedown, we include dummy variables in our analysis for Rock, Electronic and Hip Hop music, with “Pop” as the reference category. Finally, the business practices of specific music labels may be a factor in whether parody videos are taken down. Specific businesses may have internal policies that are more or less tolerant of online uses. A young, up-and-coming independent label might actively encourage YouTubers to parody their artists’ works, while a more established corporate player might be more restrictive, for example. To capture potential effects from individual music labels, we include a dummy variable for songs owned by major, as opposed to independent music labels.⁴¹

47 *Behavioral factors.* This group of factors relates to the decision making and behavior of the parodist/uploader when creating and sharing their video. One important set of factors relates to the underlying

39 And indeed, this is possible given the anecdotal reports of displeasure by specific artists concerning online uses of their works. See Miller and the “Prince effect” (*supra* footnote 26).

40 See A. Sinnreich. *Mashed up: Music, technology, and the rise of configurable culture*. University of Massachusetts Press (2010), 107-123.

41 Major labels are defined as belonging to one of the “big three” - Universal Music Group, Sony Music Entertainment, and Warner Music Group, or their sub-labels (including Atlantic, Capitol, Parlophone and EMI, among others). The authors are grateful to Matthew Sag at Loyola University Chicago for his suggestion to include possible label effects in the analysis. The initial collection of music label information was carried out by Sabine Jacques, with additional coding by the authors.

material directly copied or added by the parodist when making their video. In our initial sample, many parodists copied portions of the original composition or sound recording in their uploaded video. A smaller group of parodists copied the original music video itself, although most parodists in our sample chose to create new video content as well as lyrics to accompany their derivative work. This is unsurprising, as YouTube is primarily a platform for video expression and uploaders may lack the musical ability to perform and record a new sound recording riffing on an original song without directly copying it. Another behavioral factor relates to the parodic intent – or lack of discernible intent – of the uploader. As previously discussed, the majority of videos corresponded to two known types of parody: “target” (which takes aim at the original work) and “weapon” (which uses a work to draw attention to a different social issue or phenomenon). However, a further 13% of parodies in the initial sample had no discernible focus of critique, even though the parodist had tagged their uploaded video with the keyword “parody”, making it detectable to our initial sampling method. We record this lack of parodic intent and include it as a dummy variable in the analysis, with the reference category being all other parodies where a focus of critique was evident. Finally, we record and include variables which capture the style of address and gender of the parody performer (female solo compared to male solo and mixed groups).

F. Analysis and Discussion

48 The data on YouTube takedowns, comprised of 1,839 cases, presents two challenges for analysis. One challenge relates to censoring of the data: while the observation period took place over 72 months, not all takedowns that may eventually occur are captured in our study. A second challenge is one of survivorship bias introduced by the removal of the most egregious infringing parodies immediately upon upload. In order to address these challenges, we perform a Cox proportional hazards analysis to examine the effect of covariates on time-to-removal.⁴² This allows us to identify which variables are associated with an increase or decrease in the risk that a given user-generated video will be taken down. The dependent variable (event) in the analysis was the detection of a takedown (expressed as a binary variable: 1=yes, 0=no). Covariates include features of the parody video itself as well as features of the

original commercial work (full descriptive statistics are provided in Annex 1). The time variable is the maximum number of months a video “survived” from upload to detection of a takedown.

49 The results of the Cox regression analysis are presented in Annex 2. Results are reported as hazard ratios, indicating an increased risk of takedown when the ratio is greater than 1, and a reduced risk when the ratio is less than 1. Columns 1-4 present the results for each of the groups of covariates, and column 5 presents the model with all main variables included. The “target” variable is not included in specification 5 due to multicollinearity with the other variable of interest, “severity of critique” (all severely critical parodies were target parodies).

Discussion 1: Commercial factors

50 In the preceding section, we identified one set of factors related to claims by rightholders that parody harms the commercial market for their works. To assess these claims, we analyze variables related to production values, popularity and commercial sales of original works to assess whether these factors influence the probability of rightholder action. A first observation from the analysis is that the commercial success (sales rank) of the underlying commercial release does not appear to have a significant impact on rightholder takedown activity. A second commercial concern for rightholders is the possibility for substitution by parodic works, which might compel them to remove parodies most popular with viewers. We observe a significantly negative effect for number of views on the risk of a takedown. This means that more popular videos (as measured in 2012) had a lower risk of being removed by rightholders.

51 A second, related concern for rightholders is the potential for lost licensing revenue from parody videos that have commercial potential. The proxy variable used to capture commercial potential in this analysis is the level of production values in the parody (initially measured by human coders using a Likert-style rating from 1-5). Parody videos with higher production values may reflect creators with access to more resources and more funding compared to amateur producers. Overall, higher production values reduced the risk of a takedown compared to videos with average or low production values. There are several potential explanations for this result: commercially-minded YouTubers may benefit from pre-existing licensing agreements (for example through membership in multi-channel networks); highly skilled parodists may benefit from knowledge which helps avoid automated takedown (for example by performing their own musical rendition to accompany the parody); or,

42 For further discussion of suitability of the Cox proportional hazards model to analysis of cohort data in an organizational setting, see A. Scherer, N.V. Wunderlich and F. Von Wangenheim, *The Value of Self-Service: Long-Term Effects of Technology-Based Self-Service Usage on Customer Retention*. *MIS Quarterly* 2015, 39(1).

rightholders may be engaged in a form of brand management, trimming videos that they feel do not meet standards of quality aligned with their objectives as entertainment brands.

Discussion 2: Artistic characteristics

- 52 In the preceding section, we characterized two claims originating from rightholders that the artistic qualities of a parody might be harmful to artists. The first proposition relates to the potential for reputation harm arising from negative parodies, which target the artist or the original work. Among the covariates in Annex 2, we include two dummy variables for “weapon” and “target” parodies, to test the impact of negatively targeting the original work on the risk of a takedown. The reference category is all other mislabeled parodies where no clear intent could be ascertained. We observe that the effect on risk of takedown for both weapon and target parodies is negative. It appears that having a clear parodic intent, even if critical of the original work, benefits the survival of parodies.
- 53 A second claim was the potential for parodies to infringe the moral rights of creators (one rationale for curtailing exceptions to copyright). The influence of moral rights concerns on the takedown rate is complicated by the range of potential objections that an author might have to a transformative use of their work. We assume that “derogatory treatment” in the eyes of a creator is likely to include use that de-values the original for a new audience.⁴³ One possibility is that a parody could be placing a work in an objectionable context.⁴⁴ The variable

43 Section 80(2)(b) of the UK Copyright, Designs and Patents Act 1988 provides that the treatment of a work is derogatory “if it amounts to distortion or mutilation of the work or is otherwise prejudicial to the honour or reputation of the author or director”. Reference to the wording of Art. 6 of the Berne Convention suggests that the author can only object to distortion, mutilation or modification of her work if it is prejudicial to her honor or reputation. Still one UK court has given a wide interpretation, considering the removal of a forest background from a photograph as a derogatory distortion (*Delves-Broughton v. House of Harlot Ltd* [2012] EWPC 29).

44 An example is the notorious *Deckmyn* case before the CJEU (Case C-201/13) where the rightholders of *Suske en Wiske* hoped to stop a right wing political party from circulating a pamphlet that spoofs a famous cartoon cover, but this case was decided without reference to moral rights (which are not harmonized EU rights). At (27): “It follows that the application, in a particular case, of the exception for parody, within the meaning of Article 5(3)(k) of Directive 2001/29, must strike a fair balance between, on the one hand, the interests and rights of persons referred to in Articles 2 and 3 of that directive, and, on the other, the freedom of expression of the user of a protected work who is relying on the exception for parody, within the meaning of Article 5(3)(k).” If a discriminatory message is conveyed “which has the effect of associating the protected work with such a

“severity of critique” was included in column 4. It has a significantly negative effect on takedown risk, strengthening the interpretation that a clear target of attack is more beneficial than having no target at all.

Discussion 3: Cultural factors

- 54 We analyze another set of factors related to the cultural context of music production and legal culture of the territories of the original artist. A significant factor for likelihood of a takedown is the genre of the underlying musical work. We find that for parodies of rock music, the risk of takedown is significantly reduced compared to pop, hip hop, and electronic music. This finding remains stable and significant across different specifications. The result is surprising, counterintuitive to existing scholarship which suggests greater tolerance for sampling and re-use in art forms such as hip hop music. Our result may reflect an overall permissive tendency in less popular, traditional music. Rock music right holders may not be interested in enforcing copyright on YouTube due to a focus on traditional commercial channels of distribution. Other than musical genre, the other main cultural factor influencing takedown was territory of the original artist. For original works by artists based in the USA, the risk of takedown was significantly lower than for the UK and Europe. This may reflect the influence of fair use, or it may reflect greater tolerance on the part of American music rightholders to online user-generated expressive practices.

Discussion 4: Behavioral factors

- 55 Finally, we analyze factors originating from the behavior of parodists when creating and uploading their derivative works. One significant factor in this group is a lack of parodic intent on the part of the uploader. The result is positively significant (at the $p < .01$ level). This result may reflect elimination of parodies where the uploader has tried to disguise their use as a parody. These could be straight copies of the original music video or could consist of “karaoke” covers. Lack of parodic intent is also correlated with lower production values, so the increase in takedown rate may also reflect brand management “pruning” by copyright holders

message” (at 29) (a case which it is for the national court to assess), (30) “attention should be drawn to the principle of non-discrimination based on race, color and ethnic origin, as was specifically defined in Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin (OJ 2000 L 180, p. 22), and confirmed, inter alia, by Article 21(1) of the Charter of Fundamental Rights of the European Union.”

unhappy with poor-quality uses.

56 This group of factors includes measures of the amount of borrowing from original works (copied video or sound recording). Unsurprisingly, we find a significant positive relationship between the presence of an original sound recording and risk of a takedown. When parodists borrowed the underlying recorded track from a commercial work, their video was more likely to be rapidly taken down. Borrowing the original video in a parody also increased risk of takedown, but less significantly. This may reflect the immediate detectability of copied videos, with the most egregious copies taken down immediately, leaving only more robust derivative works that withstood subsequent takedowns. The impact of artistic borrowing on takedown rate may generally be explained by the use of ContentID by rightholders to automatically locate and policy infringing material (sound and video content).

57 **Table 3: Summary of factors influencing takedown of parody videos (waves 1 & 2)**

Commercial factors	Cultural factors
Sales rank of original	Genre: rock .560***
Parody Views .864***	Genre: Electro
Parody production values .898***	Genre: Hip hop
Monetization on parody	Territory: UK
	Territory: USA .724***
	Major record label?
Moral/artistic factors	Behavioral factors
Parody type: target	Copied sound recording 1.237***
Parody type: weapon	Copied video recording
Severity of criticism	Lack of intent (mislabelled parody)
	Parodist appears on camera
	Gender of parodist

Note: Significant variables reported as hazard ratios. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

G. Conclusion

58 This paper has examined the rate of copyright takedown of parody music videos to assess different claims made by rightholders about the features of parody that they find threatening to the artistic integrity and commercial exploitation of their work. Based on public policy statements, we expected to observe a higher probability of takedown for variables related to commercial substitution, as rightholders exercised their copyright to protect the market value of their works. Considering artistic factors, we expected to observe rightholders exercising their copyright to protect the artistic integrity of their expressions and reputation of artists.

59 Other than removal of direct forms of copying, rightholders do not appear to be acting in a way that corresponds to public statements about the artistic or commercial harm posed by parody works. One counterintuitive finding is that rightholders are not targeting the most popular or highest production value parodies, but appear to be doing the opposite. This contradicts the expected result, which is that rightholders should be concerned about substitution, and that they should seek to suppress commercial-quality derivative uses in favor of licensing use of their material. It is likely that the ability of rightholders to track and monetize derivative uses of their copyright material via ContentID partially explains the observed result. High-quality and popular parodies might remain live on the platform because rightholders have determined that the revenue gains from monetizing those unauthorized parodies weigh against any potentially negative effects such as substitution.

60 The use of ContentID monetization does not explain the disproportionate rate of takedown of parodies with lower production values, which is significant across specifications. Poor quality may be linked to a lack of copyright awareness on the part of uploaders. Parodists with less skill may be more likely to directly copy a sound recording, making their output more easily detectable by rightholders. The significance of direct copying on the risk of a takedown reinforces this possibility. Rightholders and their representatives may also be involved in brand management in their online takedown policy – leaving up those videos that are popular or reflect well on the artist’s brand, while seeking to remove those that tarnish the artist due to their amateurish production values. Further research is needed to ascertain why high production values appear to be an important factor in why certain derivative uses might escape a takedown request, other factors being equal. Qualitative features of parodic treatment (such as the extent of transformation, and if what was taken from the original was necessary) are commonly considered in legal determinations of infringement.⁴⁵ The empirical findings suggest that this is also important in commercial practice.

61 A second finding of our study is that rightholders do not appear to be concerned with the expressive content of parodies, even when they explicitly target or criticize the original artist or work. This contradicts the expectation, based on published opposition by rightholder groups, that widespread parody threatens the integrity of works and therefore the moral rights of creators. In our sample, the “severity” of a parody significantly reduced the risk of a copyright takedown. The outcome suggests

45 *Supra* footnote 8: D. Mendis and M. Kretschmer (2013), p. 19.

46 *Supra* footnote 10: Heald (2014); Seng (2015); Urban, Karaganis, Schofield (2016).

that rightholders are more concerned with direct copying and with commercial licensing than with artists' moral rights.

- 62 The results obtained in this study suggest potential directions for future research. We have presented data on takedowns and rightholder behavior for a limited sample of internet content. While our results invite comparisons with other studies of notice-and-takedown,⁶² in fact user-generated parody videos are a unique form of expression subject to dynamics that may be different in other domains where rightholders seek to protect their work from direct infringement. Comparative research might examine other communities where consumers appropriate commercial work to generate new expressions, for example fan fiction or machinima creator communities.

- 63 The UK eventually introduced a new fair dealing exception for the purposes of parody, caricature and pastiche with effect from 1 October 2014. In its technical review of draft legislation, the Intellectual Property Office outlined its rationale, stating, “adopting this exception will give people in the UK’s creative industries greater freedom to use others’ works for parody purposes. Drafting this as a fair dealing exception [...] is intended to allow creators to make minor uses of other people’s copyright material for the purposes of parody, caricature or pastiche, without first asking for permission.”⁶³ Because our original data were collected in 2012 and had already undergone takedown effects before the introduction of the new legislation, we are unable to examine effects of the UK exception on takedown rate. The effect of policy change on right holder behavior is a potential direction for future research.

- 64 This study provides the first empirical analysis of YouTube takedown behavior combining information about content as well as stated policy of rightholders. The central finding is that rightholders appear to make complex choices that are assisted by automatic detection mechanisms, with little concern for the artistic integrity of the creative works they represent. The significant difference between musical genres suggests that rightholders, even in the same medium, behave quite differently from their peers. Further empirical research of tradeoffs between enforcement, innovation, and freedom of expression in online platforms is urgently needed. Our study maps a new methodological path how to do this.

Annex 1: Descriptive statistics for main variables

	Min	Max	Mean	Std. Deviation
Taken down (censored event)	0	1	.3469	.47612
Indicator of sales rank	0	.99	.6043	.20556
Number of views at time of January 2012	1	26,856,003	130,543,547	1,064,833,044
Monetized dummy	0	1	.5856	.49274
Production values (1-5 scale)	1	5	3.0240	.99726
Highest production dummy	0	1	.3121	.46347
High production dummy	0	1	.2478	.43187
Average production dummy	0	1	.4041	.49086
Low production dummy	0	1	.2838	.45095
Parody type: target dummy	0	1	.3484	.47659
Parody type: weapon dummy	0	1	.3065	.46116
Parody type: mislabeled dummy	0	1	.3451	.47554
Highest severity of critique dummy	0	1	.0152	.12248
Music genre: pop dummy	0	1	.4448	.49708
Music genre: hip hop dummy	0	1	.3121	.46349
Music genre: rock dummy	0	1	.1648	.37107
Music genre: electro dummy	0	1	.0783	.26872
Territory: USA dummy	0	1	.7504	.43289
Territory: UK dummy	0	1	.1838	.38742
Major label dummy	0	1	.8124	.39050
Copied sound recording dummy	0	1	.77	.420
Copied video recording dummy	0	1	.01	.107
Parodist appear in video dummy	0	1	.7847	.41111
Female dummy	0	1	.1203	.32541
Time (Months)	13.00	72.00	59.904	17.507

Annex 2: Cox proportional hazards analysis of the effects of video features on takedown rate

	(1)	(2)	(3)	(4)	(5)
Model:	Commercial	Cultural	Moral/ Artistic	Behavior	All factors
covariates					
Sales rank	1.070 (.736-1.554)				.989 (.673-1.452)
Monetized dummy	1.209* (1.209-1.420)				1.135 (.962-1.340)
Log views	.854*** (.824-.885)				.864*** (.832-.898)
Production values	.901* (0.826-.984)				.898** (.819-.985)
Rock dummy		.600*** (.465-.774)			.560*** (.434-.724)
Electro dummy		1.143 (.859-1.227)			1.058 (.787-1.422)
Hip hop dummy		1.027 (.859-1.227)			1.013 (.861-1.236)
USA dummy		.640** (.471-.868)			.724*** (.604-.867)
UK dummy		1.010 (.720-1.416)			
Major label		.954 (.782-1.163)			.891 (.729-1.090)
Weapon dummy			.613*** (.412-.809)		.908 (.732-1.127)
Target dummy			.776** (.672-.994)		
Severity of critique				.368* (.137-.988)	.504 (.186-1.364)
Mislabeled dummy				1.425*** (1.213-1.674)	1.096 (.908-1.322)
Parodist appears				.976 (.804-1.185)	1.031 (.844-1.259)
Parodist female				1.162 (.917-1.472)	1.028 (.809-1.307)
Copied sound rec				1.472*** (1.202-1.802)	1.237** (1.004-1.523)
Copied video rec				1.761* (.938-3.307)	1.212 (.638-2.302)
Observations	1,839	1,839	1,839	1,839	1,839
Model AIC	8872.71	8959.53	8971.49	8809.66	8691.23

Notes: Values are exp(B) with 95% confidence intervals (lower-upper) in parentheses.
Significance levels: *** p<0.01, ** p<0.05, * p<0.1