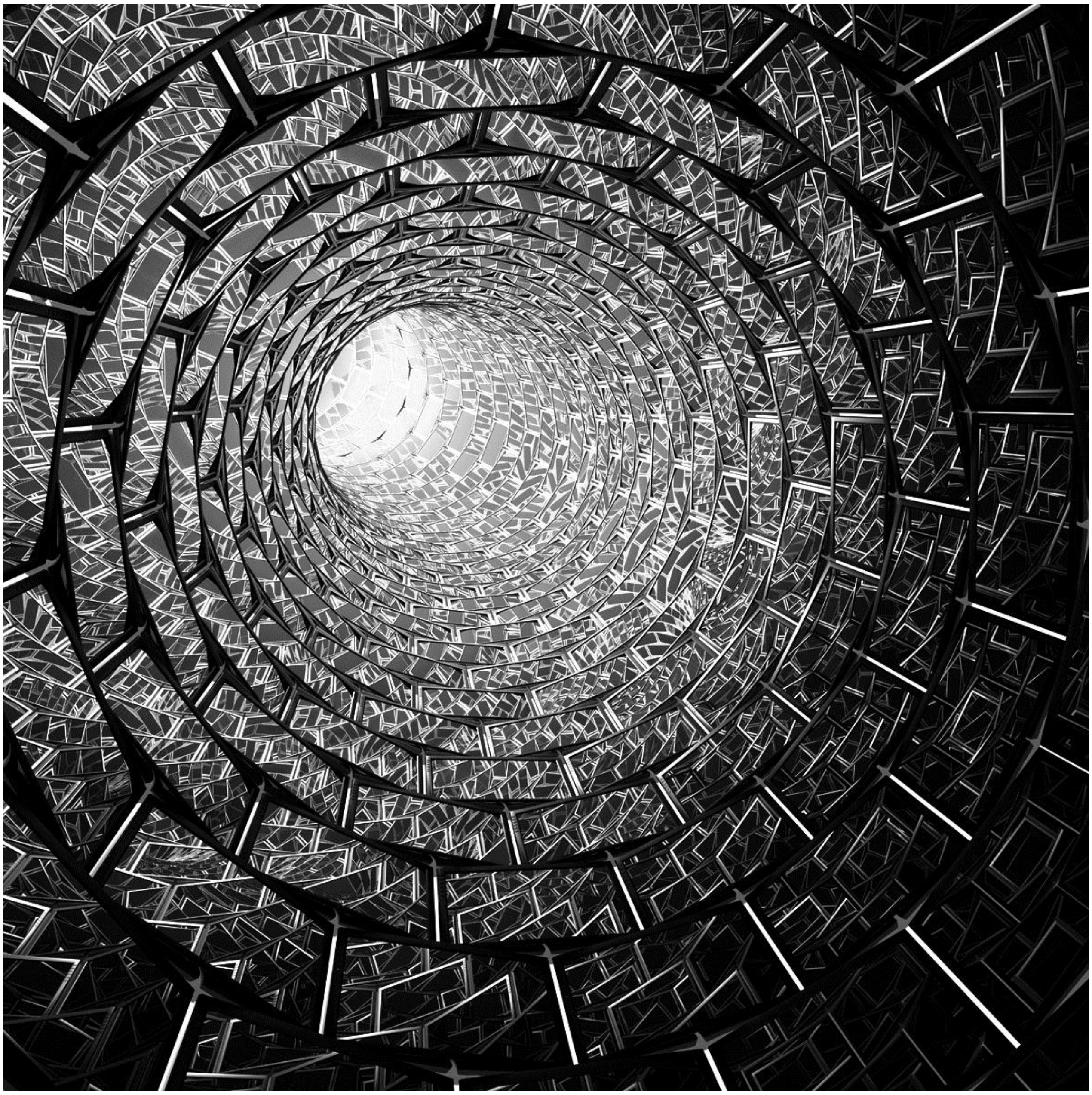

PROFITING FROM FREE: THE SCOURGE OF ONLINE PIRACY AND HOW INDUSTRY CAN HELP

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Executive Summary

An epidemic is haunting our creative economy: an online epidemic of theft-based businesses. It is an epidemic that, in many ways, both undermines our creative economy and impoverishes our culture. The goal of this paper is to explore how industry can help lay the groundwork to confront this epidemic.

This paper begins by reviewing recent data on the Internet's impact, both positive and negative, on artists, performers, and other creators. It then considers the key business models of distributors of stolen online content and examines how these illegal distributors often take advantage of legitimate intermediary services such as search engines, online advertising networks, and payment processors to "profit from free"–that is, to make money from stolen works. The paper then examines both law-based and market-led efforts to combat online infringement and concludes with a list of principles intended to help advance consensus-based, industry-led efforts to eradicate online theft. This analysis leads to three core conclusions:

- **Effective action requires collaboration.** Online intermediaries such as advertising networks, payment processors, search engines and social networks play a valuable role in driving innovation and commerce on the Internet, and they directly benefit from the broad availability of high-quality, legal online content. At the same time, many infringing sites rely on these same services to sustain their illegal operations. Because content theft imposes tremendous harms on the economy and society, content owners and online intermediaries have a shared long-term interest in working collaboratively to combat online piracy.

- **The law is not enough**. While existing laws provide a solid baseline for allocating the rights and responsibilities of content owners and intermediaries in the online environment, they alone have not proven sufficient to substantially curtail online infringement. Given the rapid pace of technological change and the important commercial and social interests impacted by the flow of data across networks, crafting sufficiently flexible but effective changes to laws has proven increasingly difficult. Far preferable at this stage are voluntary mechanisms and industry best practices designed to discourage online piracy.

- **Competition matters.** The fact that a single company, Google, dominates several key markets that are used to facilitate infringements – including online search, video, and advertising – impedes effective voluntary mechanisms. This is a significant problem because Google not only faces an absence of market pressure to change its ways, but may actually have incentives to perpetuate the status quo. Smaller competitors cannot shoulder additional burdens if Google refuses to take them on, and the lack of competition may also thwart the emergence of innovative new technologies, practices, or business models that could be more effective in combatting online piracy.

Recent market-led initiatives that bring together creators and online intermediaries are beginning to show promise in addressing the scourge of online theft. Although it is too early to know which of these will succeed, it is not too soon to draw lessons from them. This paper proposes the following principles as guideposts for further work on developing effective market-led responses to online theft:

1. Copyright owners and online intermediaries have a shared, long-term interest in promoting consumer access to legitimate sources of content and combating online theft.

2. Solutions should be implemented in ways that are consistent with applicable law and respect fair use, privacy, robust competition, free expression, and due process.

3. Copyright owners and online intermediaries should seek solutions that facilitate transparency and enable meaningful, cost-effective action.

4. Graduated responses can increase effectiveness while preserving consumer interests.

5. Market leaders need to lead the charge.

Online Content: The Best and Worst of Times

The Internet has spawned huge growth in consumer access to content

The creative industries are central to our economic and cultural well-being. These industries – which include publishing, film, television, music, photography, and software – represent the central pillars of our knowledge economy. They are key to our 21st century prosperity.

European governments recognise the immense value of the content industry to the economy. As noted in a recent report for the European Commission prepared by the European Observatory on Infringements of Intellectual Property Rights:

> IPR-intensive industries are shown to have generated almost 26% of all jobs in the EU during the period 2008-2010 . . . . On average over this period, 56.5 million Europeans were employed by IPR-intensive industries, out of a total employment of approximately 218 million. In addition, another 20 million jobs were generated in industries that supply goods and services to the IPR-intensive industries. Taking indirect jobs into account, the total number of IPR-dependent jobs rises to just under 77 million (35.1%).
>
> Over the same period, IPR-intensive industries generated almost 39% of total economic activity (GDP) in the EU, worth € 4.7 trillion. They also accounted for most of the EU's trade with the rest of the world, with design-intensive, copyright-intensive and GI-intensive industries generating a trade surplus.[1]

The report also found that EU copyright-intensive industries in particular account for nearly 9.4 million direct and indirect jobs in the EU, contribute nearly €510 million to European GDP, and provide a trade surplus in the EU's economic relations with the rest of the world.[2]

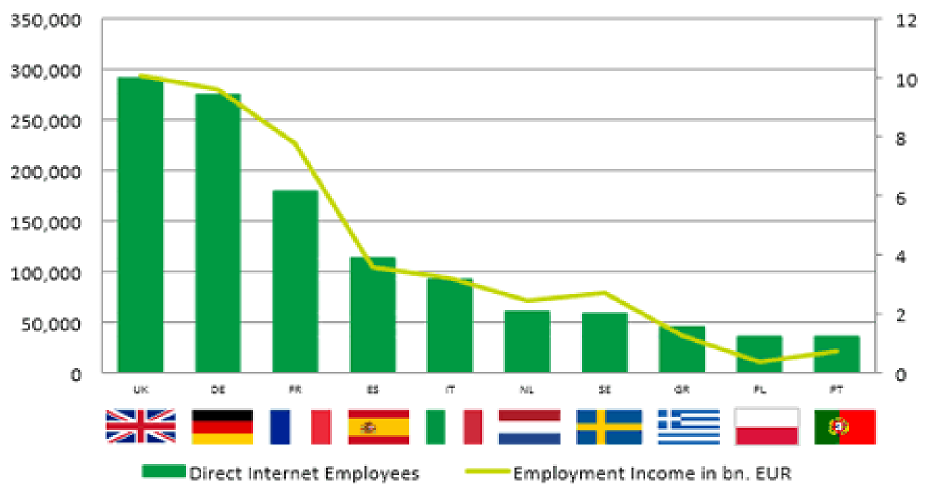
No single technology offers as much potential for the creative industries – or poses as much risk – as the Internet. The Internet has made online content and creativity astonishingly accessible to consumers. Digital music, video, photographs, articles and blogs are ubiquitous. Every second of every minute of every day, 450 pictures are shared online on Instagram, 825 Tumblr blogs are posted, and 15,000 tweets are authored.[3] The economic upsides of this content bonanza are mindboggling. Facebook bought the two-year old Instagram, with its 150 million users, for $1 billion in 2012.[4] Tumblr, with its 130 million individual blogs, was acquired by Yahoo for $1.1 billion in June 2013.[5] The still privately owned Twitter is now valued at around $12 billion and filed paperwork for its IPO in September 2013.[6] These facts show that investors clearly see the commercial value of attractive online content.

Of course, much of the content on sites like YouTube, Instagram, and others is viewed only a few times (if that) and then never again. While the ability of amateur creators to share content efficiently and broadly is part of what makes the Internet unique, it is equally clear that the availability of high-quality, professional content is what drives much of the Internet's economic and cultural value. For this reason, technology companies and content creators co-exist in a virtuous circle: Innovations in technology give consumers new ways to engage with content and thereby drive demand for more and better online content. More online content, in turn, gives consumers more reasons to adopt new technologies and services through which they can access and enjoy such content.

This mutually reinforcing explosion of content and technology has had a significant impact on EU growth, jobs and prosperity. According to a May 2011 study by the McKinsey Global Institute, entitled *Internet matters: The Net's sweeping impact on growth, jobs and prosperity*, which examined 13 economies including those of Germany, France, the United Kingdom, Sweden and Italy, the Internet accounted for 21% of GDP growth in these countries' economies over the past five years.[7] The study estimated that for every 1 job lost because of the legal digital revolution, the Internet creates 2.6 new jobs, and that 75% of the Internet's economic value arises from its impact on traditional industries such as publishing, music, movies and photography.[8]

The economic impact of the Internet is particularly relevant in the European Union. According to a 2013 research report commissioned by the European Interactive Advertising Bureau (IAB) and conducted by the Belgian Vlerick business school, the Internet sector employs 3.4 million Europeans, 1.6% of the active EU workforce, and generates €119.9 billion in economic activity annually, around 1% of the EU's GPD.[9] And in some countries, such as the UK and Germany, the Internet represents an even higher proportion of the economy, as high as 6.3% in the UK, where it employs almost 300,000 people (see figure 1). The IAB study also forecasts that Europe has, in the long term, the "potential" to generate up to 1.5 million new jobs in this sector[10]--with this *potential*, of course, being dependent on the emergence over the next few years of legal European online businesses that can generate real, sustainable jobs for European workers.

Figure 1: Direct Internet Employment and Employment Income in top 10 EU Countries, 2010[11]



Content, in particular video content, increasingly dominates the worldwide web's economy. A 2012 report by Enders Analysis found that, in the European Union, there are 264 licensed online video on demand (VOD) services as well as hundreds of other free-to-air broadcasters, VOD iTunes channels and YouTube channels serving professional content.[12] The metrics on all this video usage are stunning. In December 2012, for example, 182 million users engaged in a total of 38.7 billion video views.[13] Services like Hulu, Netflix, and Apple's iTunes store are providing consumers with easy, inexpensive access to a stunningly broad library of top-quality professional films and programming, and are beginning to generate significant revenues. Indeed, although primarily a content distribution company, Netflix has invested several million dollars in original programming as well, including in such series as "Arrested Development," "House of Cards" and "Hemlock Grove."[14]

Short-form and niche video content services are also thriving. On YouTube, which boasts over a billion monthly unique users in 56 national markets, 100 hours of video are uploaded every minute, and 6 billion hours of video are consumed each month.[15] Google, which owns YouTube, recently opened a "vast hangar-sized studio" in a 41,000 square foot Hollywood building dedicated to the creation of videos for its ever-growing network.[16]

Given the inevitable growth of online video content, such investments make sound economic sense. After all, Cisco predicts that, by 2017, a million minutes of video will cross the Internet network each second.[17] And we will be watching all that video on 50 billion connected devices – from big screens and computers to phones, tablets, and a coming generation of wearable devices.[18]

Online video is even replacing the telephone as our principle mode of communication. On Skype, for example, around 50% of all calls made are video based.[19] That is around a billion minutes a day of video calls – enough time, according to Skype, to travel to the moon and back over 112 thousand times, walk around Earth more than 422 times, or travel to Mars more than 2,700 times.[20]

The growth of quality online video is mirrored across many other content sectors. In music, online businesses are reinventing how consumers access their favourite music, with the number of authorised German online music services – such as the *Ampya* service from ICOMP member ProSiebenSat.1 (see case study) – mushrooming from just 11 in 2007 to 68 in 2011.[21] The 2012 Enders Analysis report found that the EU had 543 licensed music services as well as hundreds of ad-supported webcasting music services.[22] In Britain, the number of authorised music services grew from 14 to 71 in the same period, while in Spain they increased from 9 to 31[23]. The UK also saw a significant increase in online sales, with online music revenues between 2011-12 surpassing physical revenues and resulting in overall growth in total music sales of 2.7% in this period – the first year-to-year increase in the market for a decade.[24] In the first half of 2013, Germany also saw a 1.5% increase in annual overall music sales, the first uptick there in ten years.[25] In France, digital music revenues expanded from $215 million in 2010 to $275 million in 2012, with similarly positive increases in the smaller Spanish and Italian markets.[26]

Case study: Ampya

Ampya, the new German video and music clip streaming service launched in 2013 by ICOMP member ProSiebenSat.1, shows that new voluntary mechanisms, offering attractive legal services to the benefit of industry, consumers and artists, can be found. Supported by the German music industry association's "fair play" initiative, *Ampya* represents a new trend that changes the way music and videos are consumed. *Ampya* offers users a range of options to access authorised copies of over 50,000 high-quality music videos.

Ampya can be accessed either as a free service interspersed with advertising, or through a monthly subscription charge. Consumers who pay the monthly fee gain access to a wider library of content and can also access the service on mobile devices. The success of Ampya, which has 24 million unique users, clearly shows that customers are willing to pay for innovative and user friendly services. It also shows that the availability of innovative services offering access to legal content can make a difference in the fight against online theft.

As the next section warns, however, these increases in digital music sales over the last decade have not made up for the overall collapse in the sales of physical products. But they nonetheless reflect the long-term potential of the online medium to become a viable marketplace for the sale of licensed recorded music.

Other content industries are also seeking to adapt to the digital revolution. UK newspapers like the *Daily Telegraph*, the *Financial Times* and the *London Times* have all built paywalls for their online publications.[27] Sales of ebooks are also growing: in France, the ebook market grew by a 315% between 2010 and 2011, while in Italy it grew by 740% in the same period.[28]

In many ways, then, the signs are optimistic for creators that can find ways to capitalise on the opportunities presented by new online technologies while effectively protecting their content against theft. So how are content companies faring in these efforts?

Legal channels for accessing online content are growing

For many years, those who oppose strong online copyright protections often have justified online piracy by arguing that content owners had failed to provide consumers with attractive, reasonably priced legal alternatives. But even a cursory review of the current online marketplace shows this is no longer true (if indeed it ever was). Anyone with a PC, tablet, or smartphone can now seamlessly and securely purchase, store and enjoy content wherever they are, whether at home, at work, or on the go.

Apple's online iTunes service, for example, which was rolled out in 2001 with the launch of the company's iPod digital music player, has become one of the most popular platforms for enjoying online content.[29] The iTunes motto, *where all your favourite stuff is just one click away,* is more than just slick marketing talk. iTunes content can be accessed on all of the leading software platforms – Mac, Windows, and Android – and on personal computers, tablets and smartphones.[30] The same is true of rival popular services and platforms from companies like Microsoft, Amazon and Google, who – through devices like Amazon's Kindle e-book reader and Microsoft's Surface tablet – have made the purchasing and consumption of legal online content easy, secure, and highly affordable.

It's not just U.S.-based services like Apple, Microsoft, and Google that are powering the creative digital economy. The flexibility of the iTunes service is matched by the consumer friendliness of popular online content services like the French user-generated video service DailyMotion, the UK-based how-to video content network VideoJug, and the U.S. online video service Hulu. Currently available in the United States and Japan but not in Europe, Hulu is both a website and an over-the-top (OTT) subscription service that offers TV shows, classic and contemporary movies, and specially produced web content, as well as trailers, clips, and behind-the-scenes footage from popular works.[31] A joint venture of Comcast, 20th Century Fox, and Disney, Hulu was launched in 2007 and now, along with YouTube and Neflix, boasts one of the largest online audiences for video content.[32] In February 2013, Hulu had over 24.1 million visitors who watched 709.9 million videos and 1.44 billion ads.[33]

Hulu Plus' cornucopia of video content is mirrored by subscription music services like Spotify, France-based Deezer, Rhapsody, and Pandora which, for a monthly subscription price, offer an abundance of licensed musical content. The Sweden-based start-up Spotify, for example, has over 6 million subscribers paying around $10 per month for access to 20 million songs legally supplied by all the major labels including Sony, EMI, Warner Brothers and Universal Music.[34] In addition, another 18 million users of Spotify, instead of paying a monthly subscription fee, listen for free to advertising-supported music. Since its launch in October 2008, Spotify has paid rights holders $500 million in return for access to their music.[35]

Spotify's flexibility in its offerings is reflected right across the digital economy where advertising, branded content, streamed subscriptions, paid apps and traditional single purchase downloads are all used – sometimes simultaneously – to maximise consumer choice. Take the newspaper industry, for example. France's *Les Echos,* the *London Times,* the *Financial Times*, the *New York Times*, and the *Wall Street Journal* all offer monthly subscriptions to their content. The Lond*on Daily Mail* and the *Los Angeles Times* offer free web access and are advertising supported, while the London *Guardian* offers free access but charges its readers to access specially designed mobile content for smartphones and tablets.[36]

Innovative content licensing deals are also helping give consumers attractive alternatives to piracy. One example of this is the 2012 licensing agreement between Getty Images and Yahoo! in which Yahoo! agreed to pay a licence fee to display Getty images. This agreement, which seeks to cater to high-volume, low-value transactions through a technology interface called *Connect*, enables Yahoo! to place ads next to the 20,000 new images posted online each day by news photographers.[37]

In short, there are now a plethora of legal online businesses pursuing a variety of business models and offering every kind of content for every kind of consumer at a wide variety of price points (including "free"). Content creators have, indeed, found a way. They are providing a wealth of legal alternatives to piracy and, to that extent, have lived up to their side of the digital bargain.

Despite these gains, a massive portion of the creative content available online today is stolen

To borrow a Dickensian phrase, today's Internet is both the best of times and the worst of times for the content industry. Yes, the Internet provides a consumer friendly, global marketplace for the efficient distribution and sale of legal content. The problem is that the Internet also provides those same tools and efficiencies for the illegal distribution and theft of movies, books, articles, photographs, songs, video games, software, and every other form of digitally distributed content. These illegal avenues are more than just noise against an otherwise thriving legal economy – rather, they threaten the fundamental financial viability of many legal offerings.

Unfortunately, therefore, the sky is also falling for the content industry. From Napster to Megaupload in years past to Rapidshare and the Pirate Bay today, millions of web sites and online services engage in or enable theft of content on a truly massive scale. Some of these sites – like Napster and Megaupload – have become legal or been forced out of business. But others, like the torrent-tracking site Pirate Bay, which is currently ranked as the Internet's 95th most visited site by the analytics engine Alexa and is still rated as the "top" Torrent site for 2013,[38] remain in operation despite criminal convictions against its founders.[39]

Thus, while the Internet has made online content abundant, it has also made theft of content massively widespread. The Internet has become infested with millions of pirate websites.[40]

In a 2011 report sponsored by the U.S. Chamber of Commerce, Mark Monitor estimated that piracy sites attract 53 *billion* visits a year.[41] More recently, analyst firm NetNames estimated that 432 million unique Internet users explicitly sought infringing online content during January 2013 alone.[42] In September 2013, Google received over 20 million requests by content owners to remove search results that point to infringing content.[43] These requests covered over 36,000 specific domains with names like filestube.com, dilandau.eu and zippyshare.com.[44] Moreover, a growing volume of stolen online content is being distributed not via traditional URLs, but through cyberlockers, walled gardens, and other "dark web" services that are not easily searchable by content owners.[45] These technologies make it much more difficult for content owners to locate infringing online copies of their works—let alone to identify or launch enforcement proceedings against the actual infringer.

But copyright infringement is by no means limited to the dark web. The emergence of Facebook, Tumblr, Instagram, Pinterest, and other highly visible social networking services has spurred significant growth in the unlicensed sharing and distribution of unlicensed content. The photography industry is particularly vulnerable to this.[46] Because much of the content on these sites is not accessible to the general public and instead is shared only between specific groups of individuals, photographers find it nearly impossible to stop this form of unlicensed content use, or even to measure the extent to which their photographs are being uploaded and shared through these services. Photographers also assert that social networks like Facebook and Instagram have done little to warn members about the illegal display and distribution of images.[47]

In short, the piracy problem is pervasive and arguably getting worse. A recent Ofcom study, funded by the UK's Intellectual Property Office, estimated that between May and July 2012, one in six (16%) of all British Internet users accessed at least one piece of illegally streamed or downloaded content, while 4% of these users *only* accessed illegal content.[48] A separate 2010 Nielsen report reached a similar conclusion, estimating that 25% of all active Internet users in Europe visit pirate sites each month.[49] The Ofcom report also found that some of these users are accessing "vast" amounts of stolen content.[50] The top 10% of users viewing stolen video, for example, were estimated, over a three-month period, to have watched an illegally downloaded or streamed film almost every day.[51]

The effects of this infestation of online theft are truly chilling, particularly in Europe. In a 2011 report, the International Federation of the Phonographic Industry (IFPI) estimated that 1.2 million jobs will be lost to European creative industries including music, movies, books and photography by 2015 because of piracy.[52] IFPI further estimated that, between 2008 and 2015, Europe's creative industries will suffer €240 billion in lost revenues due to piracy.[53]

In Europe, Spain – whose economic circumstances are already dire - may represent ground zero for piracy. The 2010 Nielsen report referenced above noted that 44% of all Spanish Internet users – in comparison to 23% in the top five EU markets - accessed unlicensed content on a monthly basis.[54] Despite the growth in legitimate digital services that we've already noted, music sales in Spain fell by around 55% between 2005 and 2010. In 2010 alone, the market declined by a staggering 22%.[55] In 2003, 10 Spanish debut artists featured in the top 50 albums in the Spanish charts; by 2010, that number had fallen to zero.[56] The more ubiquitous piracy has become in Spain, the less Spanish consumers spend on legal content. This vicious cycle is reflected in the sharp decline the sales and rental market for DVDs in Spain, which have decreased every year between 2003 and 2012, and shrank by a stunning two thirds between 2007 and 2013.[57]

While Spain might represent Europe's worst-case scenario for the way in which piracy has decimated the creative industries, the rest of the world is not that much better off. The global numbers, put together by web metrics firm Go-Gulf,[58] are very disturbing:

- $12.5 billion in annual losses from piracy in the music industry.
- 95% of all music downloaded on the Internet is illegal.
- The average iPod is filled with $800 of stolen songs.
- 42% of downloaded software is illegally obtained.
- 22% of all online bandwidth is used for piracy.
- 91.5% of files downloaded onto cyberlocker sites are infringing.
- 98.8% of data transferred through peer2peer networks is infringing.

- More than 75% of all personal computers have at least one illegally downloaded app.
- 71,060 jobs lost annually in the United States because of piracy.
- $2.7 billion losses in workers' earnings lost each year through piracy.
- Only 1 out 100,000 pieces of content on OpenBitTorrent is not infringing.

Yes, the sky is indeed falling when it comes to stolen online content's impact on the creative industries. Consider, for example, the revenues of the global recorded music industry. Back in the late 1990s, before the advent of Napster, the industry's global revenue from the sales of CDs, records and tapes reached $38 billion, with sales in America accounting for $14.6 billion. Today, in spite of the growth of digital sales and services already noted, and despite the slight uptick in overall music sales in the UK and Germany in 2012 and 2013, the music industry's global revenues remain just over $16 billion, with American sales having shrivelled to around $6 billion.[59] In short, despite unprecedented increases in the consumption of music over the past 15 years and the dramatic growth in the availability of legal sources of music—which should logically have been accompanied by equivalent growth in revenues—recording industry revenues have actually fallen by more than 50%.

Given that 95% of all music downloaded is stolen, it's not difficult to imagine where at least part of that missing $22 billion in annual revenue has gone. As Robert Levine, *Billboard*'s former Executive Editor, persuasively argues in his meticulously researched 2011 book *Free Ride: How Digital Parasites are Destroying the Culture Business and How the Culture Business Can Fight Back*, piracy is threatening to kill the music industry.[60] It has decimated the labels and made it more difficult for young musicians and performers that are just starting out to get record deals. It is, in many ways, killing off an important part of our culture.

Figure 2: Decline in U.S. Recorded Music Industry Revenues, 1999-2009[61]

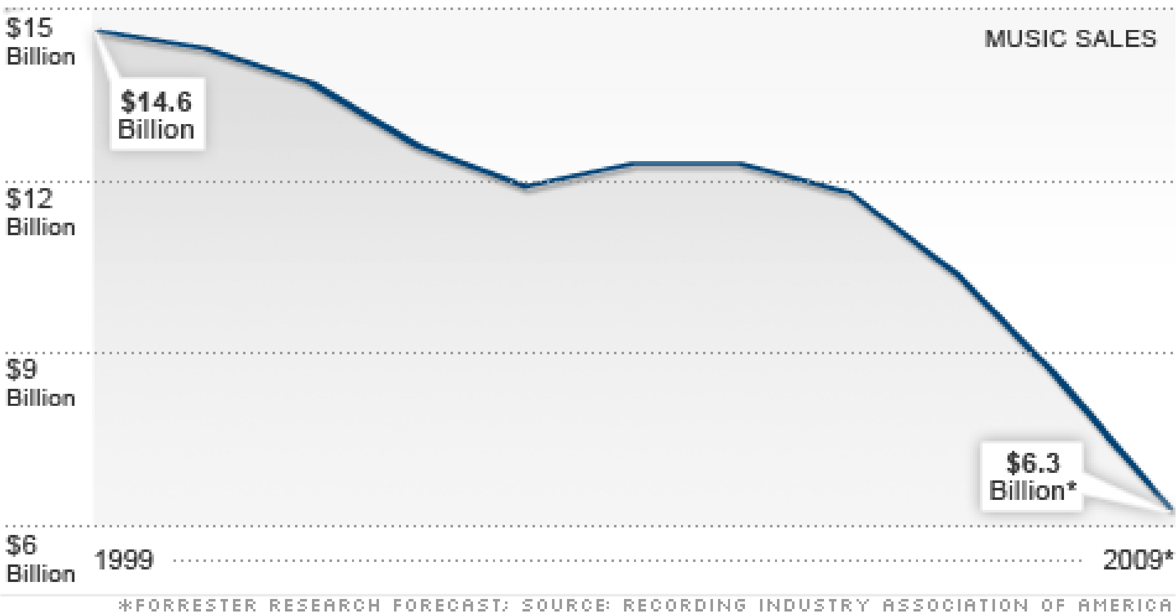
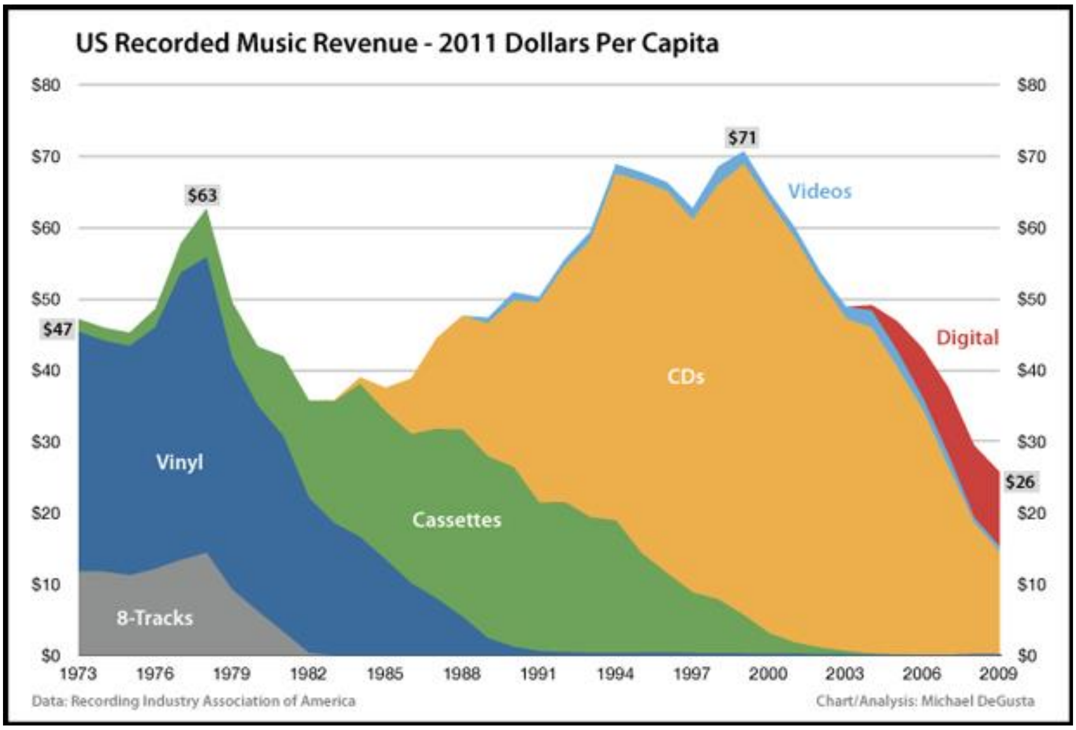


Figure 3: Changes in U.S. Recorded Music Industry Revenue Per Capita, 1973 - 2009[62]



True costs: The proliferation of stolen online content is bad for creators, consumers, and the economy

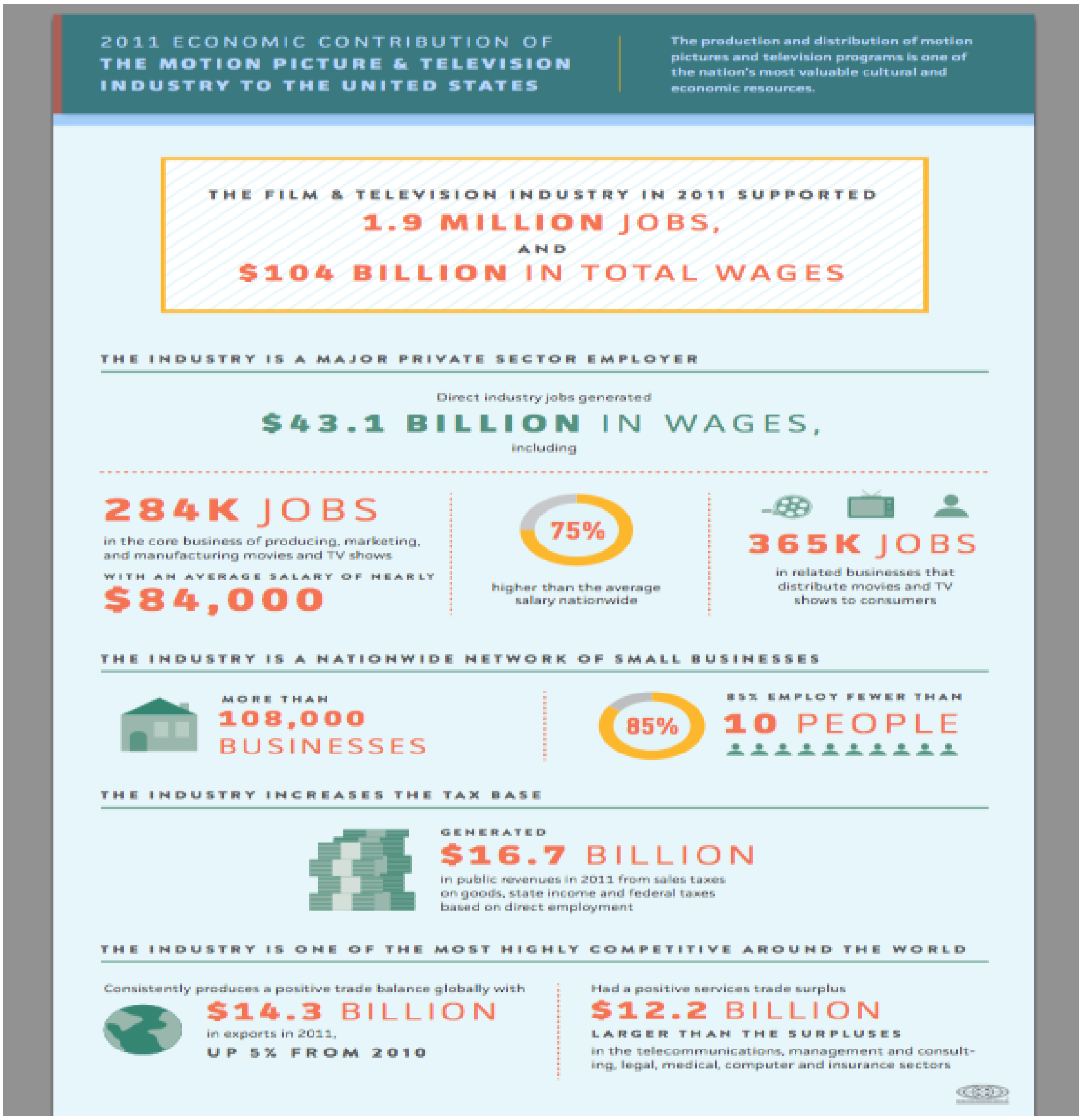
Just as the legal Internet economy has generated hundreds of thousands of new jobs and billions of Euros in new economic opportunities, the continued proliferation of stolen online content is a job and value killer.

The real cost of piracy in Europe in massive -- as the IFPI study warns, online theft of creative content could cost Europe 1.2 million jobs and €240 billion by 2015.[63] The real cost is the decline in the value of the global recorded music industry between 2004 and 2010 attributable to piracy – in spite of a surge of more than 1000% in the digital market for music.

The true cost in Europe, just for one year (2008), was a €10 billion drop in sales revenue for the creative industries and the destruction of more than 185,000 jobs due primarily to digital piracy.[64] The true cost in 2008 was €1.7 billion in lost revenue in both Spain and France, €1.4 billion in both the UK and Italy and €1.2 billion in Germany. The true cost was the loss of 39,000 jobs in the UK, 32,400 jobs in France, 34,000 jobs in Germany, 22,000 jobs in Italy and 13,200 jobs in Spain.[65]

Jobs are key in both Europe and America. As the Motion Picture Association of America (MPAA) reminds us, the 2011 US film and television industry supported 1.9 million mostly middle-class jobs earning $104 billion in total wages. The industry generated $16.7 billion in public revenues from taxes and produced $14.3 billion in exports in 2011 (see figure 4).[66]

Figure 4: Economic Contribution of the Motion Picture and Television Industry to the United States



And as President Obama's Commerce Secretary Penny Pritzker reminded an audience of music executives in Nashville, "Instead of viewing a new album as an expense to our economy, we now view it as an asset because it supports jobs and generates revenue for years to come."[67]

But it's the non-quantifiable costs of piracy that are, in some ways, even more troubling than these astonishingly large economic losses. As already noted, recording industry's fortunes have been cut by more than half over the last 15 years. While there may be as many new bands and as much music as ever, lower revenues means fewer of these new bands can get record contracts or generate enough money to survive – to the ultimate detriment of consumers and society.

The cultural crisis is equally acute in Europe. In Spain, for example, the true cost of piracy is harm to the country's creative class. As the 2011 IFPI Digital Music Report notes, it is local artists who have been "the principle victims of the crisis."[68] Up until 2000, Spain was distinguished by its international musical stars like Miguel Bose and Julio Inglesias. Every year, at least one Spanish act would sell more than a million copies of their albums throughout Europe. Since 2008, however, no Spanish artist has achieved this.[69]

The great European and American musical acts that have given millions of consumers so much joy and meaning – from the Beatles, The Who and Bob Dylan to Johnny Hallyday, Lady Gaga, Kraftwerk, Abba, Luciano Pavarotti and Julio Inglesias – have all benefited from labels able to invest in their talent. Due in significant part to the revenue lost through piracy, those investments barely exist anymore.

Even anti-establishment rockers like the British artist Paul Weller, formerly of The Jam and The Style Council, have been outraged by piracy. “Protecting the rights of artist is not just about the big famous acts, it’s about the thousands of bands you have never heard of who are trying to make a living out of their recordings,” said Weller recently.[70]

Online piracy threatens to slowly strangle our culture. It is making it harder and harder for writers, musicians, actors, filmmakers, photographers and journalists to make a living directly selling their creative work, meaning that consumers are at risk of losing out on a tremendous, untapped source of talent. We all lose as a consequence because the great songs are no longer being recorded, the great movies are no longer getting distributed and the great books no longer being printed.

Most of all, of course, it’s the artist who loses. Because now that artist no longer has the means of leaving a historical legacy. As the American technologist and best-selling writer Jaron Lanier, both a leading critic of piracy and one of Silicon Valley’s most iconic technologists, noted:

> Copying a musician’s music ruins economic dignity. It doesn’t necessarily deny the musician any form of income, but it does mean that the musician is restricted to a real-time economic life. That means one gets paid to perform, perhaps, but not paid for music one has recorded in the past.[71]

Profiting From Free

Business models behind copyright infringement

One of the most misleading myths about online piracy is that it's all a bit of harmless fun - an online rave organised by idealists who just want information to be free.

Nothing could be further from the truth. Online piracy is very big business. Much of it is organised crime operating on a massive, global scale. And like any other highly profitable enterprise, some of its business models, innovations, and technologies are more popular and successful than others.

In June 2012, the data consultancy BAE Systems Detica produced a ground-breaking report entitled *The six business models for copyright infringement* that attempted to "follow the money" generated by online theft businesses.[72] Commissioned by the UK's Performing Rights Society for Music (PRS) and Google, this is one of the first substantial research papers focusing on the business models and operations of copyright infringing websites themselves, rather than on the users of these sites.

The Detica report reveals the troubling degree to which infringing sites have infiltrated the Internet's legal business infrastructure. The report shows that many infringing sites rely for their survival on the services of online intermediaries – on legal businesses such as ad networks, payment processors, search engines and social networks.[73] It is, therefore, a valuable source for shedding light on the ways in which content owners and intermediaries can work together to effectively to reduce the prevalence of infringing content without undermining either online freedom of expression or the consumer experience.

The report reviewed 153 sites believed by major rights-holders to be "significantly facilitating copyright infringement." The goal of the study was to answer the basic questions about these sites: how they function, how they are funded, where they are hosted, what kinds of content they offer, and the size of their user bases.[74]

The report organised the sites under review into six key categories:[75]

1. **Live TV Gateways:** These websites mainly offer links to illegal streams of mostly live free-to-air or pay-TV channels. They are typically free to the user and most rely on advertising to generate revenue: 67% of the sites feature advertising, with 86% of those adverts served by networks that are unaffiliated with the AdChoices program - a self-regulatory scheme of advertisers managed by the UK's Internet Advertising Bureau (IAB).

2. **Peer2Peer (P2P) Communities**: Peer2Peer communities enable the illegal downloading of content via P2P networks of distributed servers. In terms of revenue, these sites have a "heavy dependency on advertisement and donation funding."[76] 86% feature adverts, with 84% of these adverts unaffiliated with the IAB Ad Choices program.

3. **Subscription Communities**: This segment represented only 5% of the sites sampled and, given the paucity of data, the report offers little transparency about UK traffic to these sites.

4. **Music Transaction**: These are transactional sites in which users buy illegal content. Given the transactional nature of their business model, all of these sites have debit and credit card payment logos visible on the payment page. There is a higher than average likelihood that users are referred to these sites from search engines like Google. They also have a high level of social networking presence and referral.

5. **Rewarded Freemium**: The mostly musical content on Reward Freemium sites is uploaded to central servers from which it is then downloaded by users. 61% of these Rewarded Freemium sites featured electronic payment provider logos, with debit/credit card payment options offered on 46% of the sites.

6. **Embedded Streaming**: This final segment allows users to embed streamed content either on their own sites, on third-party sites, or on forums. 89% of the 18 sites studied in the report carry adverts – with none of these adverts served by ad networks affiliated with the IAB Ad Choice scheme.

Advertising, the Detica study notes, "plays a key role in at least three of the segments." In Live TV Gateway, the fastest growing business model, online advertising funds 67% of the sites. The second quickest growing segment, P2P Communities, has an even greater reliance on advertising, with 86% of its sites generating revenue from adverts.[77] Today, Google is the clear market leader in the supply of online advertising. According to some estimates, Google accounts for roughly one-third of all online advertising, and its share is expected to grow significantly in the future.[78]

These businesses were also reliant on payment and card processors to collect subscriptions, transactions and donations. In at least three of the segments, the study notes, the existence of credit card and/or payment processor logos were "significant," with Subscription Communities and Rewarded Freemium sites being particularly dependent on them. There is a "strong likelihood," the report concludes, that these credit card and processor facilities are actually being deployed to collect payment. 36% of the sites revealed payment pages, with credit card logos being present on 69% of them. Given the visibility of these logos, the study concludes that there is a "critical relationship" between the theft-based businesses and the legitimate transactional services that process consumer payments on their behalf.[79]

The study also reveals the role of search engines and social networks like Facebook and Google Plus in driving traffic to these sites.[80] While some of the segments, like Music Transaction sites, may rely on search engine traffic more than others, it is clear that all these sites rely on search engines to varying degrees to drive traffic and thus generate revenue for their theft-based businesses. Google today dominates search and search advertising, capturing nearly 90% of all searches globally and an even higher share in Europe.[81] Google also owns the dominant online video service YouTube, which is often used by commercial infringers to attract users who seek infringing content.

Indeed, among the key over-arching insights of the Detica study is the degree to which copyright infringing sites rely on the very same commercial architecture of the Internet – search engines, payment processors, and ad networks – that legal businesses rely on. These theft-based businesses not only steal content from creators, they also appropriate the services of legitimate technology and financial firms to facilitate their illegal operations. As such, infringing sites pose a direct threat to innovation and creativity—and ultimately to the growth of the online economy more broadly.

The impact of online piracy on innovation, creativity, and competition

We live in an economy fuelled by creativity and innovation. That's the fundamental economic truth of our digitally networked age. Every major thinker about the post-industrial world – from Sussex University's Mariana Mazzucato to the British social activist Jeremy Rifkin to the distinguished French economist Jacques Attali to best-selling European and North American futurists like Charlie Leadbeater, Don Tapscott, Gerd Leonhard, Daniel Pink and Richard Florida – focuses on the centrality of innovation and creativity in generating economic value.

Florida's thesis in his classic book *The Creative Class* is now broadly accepted. As the key to both wealth and status in our knowledge economy, creativity and innovation are king. The pilfering of content, however, is the antithesis of creativity, resulting in massive harm not only to the creators but also to property rights and to society in general. Online thieves undermine market incentives for innovation and wreak havoc on creativity. The piracy of content is therefore profoundly impoverishing. It destroys the core economic, legal and cultural values of our post-industrial economy.

The connection between these economic, legal and cultural values was recently summarised by Michel Barnier, EU Commissioner for Internal Market and Services, at a keynote speech he made at 2010 MidemNet music festival in Cannes. Linking the importance of both "cultural" and "economic and legal" values, Barnier said:

> Yes, music has a cultural dimension, essential to our European identity and heritage. But its economic and legal aspects are also important. Copyright is at the heart of these two aspects, because copyright allows an artist to live from his creations. Because creators are also entrepreneurs. Starting a band, composing a song, producing an album, requires an investment in terms of time, money, talent, without any guarantee of ever recouping that investment. How many creators would take such risks if they could not hope to be rewarded for their creativity in case of success?[82]

Creativity is king in both the cultural and economic realm. And the law reflects this fundamental truth. It recognises that content theft harms content creation, innovation, and competition. The law recognises that artists need the space to master their medium if they are to produce valuable products. And the law recognises that the market is the ultimate platform for distinguishing between the majority of untalented artists and those who have the talent, the luck, and the work ethic to be intellectually and commercially successful.

Of course, intellectual property laws and rules of competition are two quite different beasts. The first relates to the defence of intellectual property rights and the second to the use of those (and other) rights in ways that promote robust market competition. Yet both bodies of law share the same basic objective of promoting consumer welfare, market competition, and an efficient allocation of resources.

Innovation constitutes an essential and dynamic component of an open and competitive market economy. Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition law, by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition rules are necessary to promote innovation *and* to maximise its competitive value in the market.

The rationale for strong laws to protect intellectual property is summarised by Lionel Bentley and Brad Sherman in their 2008 text, *Intellectual Property Law*:[83]

> Without intellectual property protection there would be under-production of intellectual products. This is because, while such products might be costly to create, once made available to the public they can often be readily copied. This means that (in the absence of rights giving exclusivity) a creator is likely to be undercut by competitors who have not incurred the costs of creation. The inability of the market to guarantee that an investor in research could recoup its investment is sometimes called "market failure."

The complementary goals of intellectual property and competition law also provide a strong rebuttal to those who seek to justify IP theft by arguing that "content wants to be free" and that consumers are better off with weaker protection of IP. As competition law recognises, robust protection for IP rights actually *increases* the supply of creative content because it spurs more people to invest more energy and resources into creating and supplying great works. Conversely, a legal regime that fails to provide adequate protection to creative content weakens these incentives, leaving consumers worse off. Moreover, because copyright law in particular only prohibits *copying* of a creative work—not the original creation of a substitute work, regardless how similar to an earlier work—copyright laws do not constrain users or companies from competing vigorously in creating original new works; on the contrary, copyright laws are specifically designed to spur such competition.

This is all very well in theory, of course. But the practice is more problematic. For the owners of intellectual property rights in today's digital economy, the avalanche of infringing online content and the sheer cost of policing it sometimes undermines the very rules established to protect legitimate content and competition. That's part of the challenges that rights holders face in today's digital economy. At least in some cases, the "whack a mole" legal strategy of sending takedown notices for each instance of an infringing online copy does not always work. Some companies find that it's simply too costly and time consuming.

And so the challenge is to rethink intellectual property law in the context of contemporary laws and business practices in ways that will make market competition work more effectively to address the problem of online content theft. Stated differently, the challenge is develop innovative business practices and mechanisms that build upon the existing legal framework so that the combination of laws, voluntary mechanisms and best practices collectively can be used as what PRS CEO Robert Ashcroft called a "policy lever" against theft-based businesses. We undertake that analysis in Part III.

But first, given the important and complex inter-relationship between intellectual property and competition laws, it is worth taking a brief detour to look at the state of competition on online markets. Any such review would be incomplete without a discussion of the company that dominates so many key Internet markets today: Google.

The Google paradox

Some might consider it ironic that Google helped fund the Detica report discussed above. After all, the Silicon Valley behemoth for years has had an ambivalent relationship with the content industry, having been involved in a number of high-profile legal conflicts with content owners. These include:

- Lawsuits by Viacom and others claiming billions of dollars in damages against YouTube for "brazen" copyright infringement.[84]
- Class-action lawsuits by authors, photographer representatives such as the American Society of Media Photographers, and others claiming wilful copyright infringement by Google Books[85]—which prompted German Chancellor Angela Merkel to publicly condemn Google's actions[86] and

led the U.S. Department of Justice to intervene in the lawsuits based on concerns that Google's actions were anti-competitive.[87]

- Claims by numerous vertical search operators that Google illegally "scraped" proprietary content from their sites and used it to divert people to Google's own competing sites—thereby also raising antitrust concerns that are currently under investigation by European Commission competition officials.[88]

Given these and other disputes in which Google has been accused of copyright infringement, some might conclude that Google helped fund the Detica report in part to deflect criticism of its lack of urgency in preventing misuse of its services by content thieves, and the relatively incremental steps it has taken to date. Another reason may have been a legitimate desire to build more effective coalitions of technology and media companies against theft-based online businesses. As Google's UK Policy Manager said of the report, online copyright infringement "can be tackled if we work together."[89]

Google's self-proclaimed commitment to confronting piracy was reiterated in a September 2013 report, written and distributed by Google itself, entitled *How Google Fights Piracy*.[90] The paper, which the American music industry lawyer Chris Castle described as "fallacious" and falling "quite short of both truth and reality,"[91] acknowledges that piracy remains a "challenge" and lays out five rather nebulous principles for fighting piracy – principles which sometimes read like an advertisement for Google's own products and services. For example, in a section on "better legitimate alternatives to piracy," Google promotes its own digital storefront, Google Play, and boasts about the channel partnerships and content ID anti-piracy technology offered by YouTube.[92]

Whatever its motivations in issuing or sponsoring these reports, it is clear that Google's relationship to online content theft is both complex and multifaceted. On the one hand, Google seems to recognise that its own long-term success in search, online advertising, and in many other areas is critically dependent on consumers being able to find compelling, legal online content, and that pervasive online piracy is ultimately antithetical to that goal.[93]

On the other hand, as noted above, Google is a massively powerful player in the Internet economy—particularly in search, online advertising, and online video, but increasingly in social networking, mobile, and other sectors as well. Indeed, competition regulators in Europe and elsewhere have indicated that Google already dominates several of these markets.[94] This dominance makes Google less responsive to market forces that otherwise might lead it to take a stronger stance against online content theft. And whatever its long-term interests, Google *today* generates untold millions, and quite possibly billions, of Euros annually from piracy—both directly (*e.g.*, through Google ads shown on infringing sites) and indirectly (*e.g.*, by placing infringing sites high in organic search results).

In Britain, for example, Google maintains a stranglehold in search, capturing a whopping 91% of all UK searches.[95] As noted in the Detica report, search engines remain a key tool for users to locate sources of infringing online content.[96] Given Google's dominance of search, it necessarily is a key vector of online piracy. Indeed, a recent study by Millward Brown Digital and sponsored by the MPAA found that Google was responsible for a whopping 82% of U.S. search queries that directed users to infringing online video content – a far higher percentage than Google's share of the U.S. search market.[97]

Many legitimate businesses, of course—including many content owners—rely on Google search, YouTube, Google's advertising networks, and other Google services to attract customers and generate revenue. Yet it is clear that the scale of online copyright infringement would be magnitudes smaller than it is today were it not for the fact that these same Google services are routinely used by infringing websites as well—and that many of these sites might not even be able to survive without Google. Yet Google has repeatedly deflected calls to remove, or even meaningfully demote, infringing web sites or content from its search results or to take other proactive steps that would diminish the ability of infringing sites to profit from Google services.[98] Indeed, content owners have complained that Google's actions in fighting piracy lack urgency at best, and may in fact reflect a greater desire to preserve its existing revenue streams than to tackle online theft.

How long Google can continue along this path is uncertain. In 2011, Jeremy Hunt, the British Government's then Culture Secretary, warned Google that unless it acted to demote illegal sites in its search results, the government would institute new laws in its then forthcoming Communications Act to force it to do so.[99] Perhaps in response to this warning, Google did indeed announce a new policy to downgrade theft-based web businesses in its search algorithm in August 2012:

> Starting next week, we will begin to take into account a new signal in our rankings: the number of valid copyright removal notices we receive for any given site. Sites with high numbers of removal notices may appear lower in our results. This ranking change should help users find legitimate, quality sources of content more easily – whether it's a song previewed on NPR's music website, a TV show on Hulu or new music streamed from Spotify.[100]

In its September 2013 piracy paper, Google also boasts of downgrading or removing infringing sites from its search engine.[101]

Unfortunately, this algorithmic change seems to have had little impact. Three months after Google announced this new signal in its algorithm, Richard Mollet, CEO of the UK Publishers Association, told the Guardian that "we are yet to see evidence for a significant reduction in their presence in search results."[102] Mollet's views were echoed by Kieron Sharp, of the UK's Federation Against Copyright Theft, who stated, "Google claims to have taken steps to make infringing websites and the pirated content they promote less accessible, yet is seems that its search engine is still promoting these sites which are often making money from advertising or other payment mechanisms."[103]

These findings were confirmed by the RIAA's *Six Months Later - A Report Card on Google's Demotion of Pirate Sites*, published in February 2013. "Google's search rankings for sites for which Google has received large numbers of instances of infringement do not appear to have been demoted by Google's demotion signal in any meaningful way," the RIAA report concluded.[104] 98% of Google searches for music conducted by the report, for example, resulted in the appearance on the first page of search results of an infringing site with more than 10,000 removal requests. The American publication *Billboard* came to the same conclusion as the RIAA, finding in February 2013 that legal digital music stores like Amazon were actually more deeply "buried" beneath illegal sites than they were in November 2012.[105]

Another part of the RIAA report examined the number of instances that an offending site with more than 100,000 removal requests appeared in the top 5 search results. Rather than seeing an improvement in the takedowns of these theft-based sites, the RIAA found these sites actually showing up in the top 5 search results *more often* than before the August 2012 algorithm changes.[106]

The ineffectiveness of Google's algorithm change was reiterated recently by RIAA Executive Director Cary Sherman in testimony before U.S. lawmakers. Sherman testified that RIAA's members "have seen no difference whatsoever" from Google's algorithm change. As an example, he noted that the RIAA has sent over 1.25 *million* takedown notices to Google with respect to a single website, mp3skull.com, but that the site still appears on the first page of Google search results in response to a search for the term “mp3.”[107]

Given these data, it seems clear that Google could still be doing more to ensure that its services do not facilitate content theft. Indeed, in a July 2013 report, the U.K.’s Department for Culture, Media & Sport acknowledged Google’s algorithm change described above but underscored that it “expect[s] to see Google, as well as other search engines, working with copyright owners to explore additional improvements.”[108]

In light of Google’s market power, its role in the success of any such voluntary mechanisms cannot be understated. Furthermore, given the “special responsibility” of dominant firms under EU competition law to ensure that their actions do not distort market competition,[109] some contend that Google has more than just a moral responsibility to ensure that its search engine, ad networks, and other services do not facilitate IP theft or other conduct that distorts legitimate competition.

What are the boundaries of this responsibility? More broadly, what steps can or should a dominant firm—or any online intermediary—take to address these concerns? The next section provides an introduction to these issues by exploring efforts by copyright owners to use both existing laws, and new laws aimed specifically at online infringement, to tackle the problems created when serial copyright infringers use legitimate online services to advance their illegal businesses.

The Legal Framework

Using existing law

Recently, content owners have seen at least some success is in partnering with law enforcement to take action against major infringing businesses under existing laws. A recent European example of this was the creation, in September 2013, of the special IP crime unit by the City of London Police.[110] First announced by Business Secretary Vince Cable and funded with £2.5 million from the UK's Intellectual Property office, this special unit will partner with content owners to specifically target infringing businesses. As City of London Police Commissioner Adrian Leppard noted about this unit in June 2013[111]:

> We are creating an operationally independent police unit that will co-ordinate the national and international response from law enforcement and public and private sector partners so we can effectively target those who continue to illegally profiteer on the back of others' endeavours.

This is not the first example of close cooperation between British law enforcement and the creative content community. As discussed further below, the British Police were instrumental in helping give effect to a voluntary agreement between payment processors and content owners, including by taking action against illegal Russian and Ukrainian online music services that were using credit card services to charges users for illegal content.[112]

These types of close partnerships between law enforcement agencies and online content companies also have a transatlantic dimension. For example, a June 2013 initiative by the European Police Office (Europol), which brought together the U.S. Immigration and Customs Enforcement's (ICE) Homeland Security Investigations (HIS) with a number of European law enforcement agencies, resulted in the seizure of 328 domain names associated with the illegal online sale of counterfeit merchandise.[113]

Another joint US-European operation, known as American Icon, or Transatlantic Two, involved not only U.S. and European police forces, but also the online payment processing company PayPal. Coordinated by the National Intellectual Property Rights Coordination Center in Washington, D.C., Transatlantic Two resulted in the seizure of 151 foreign-based top-level domains and more than $150,000 of illegal payments.

"American Icon/Transatlantic Two is a great example of the tremendous cooperation between ICE, our international partners at the IPR Center and the Department of Justice," said Mark Witzal, deputy director of the IPR Center. "In order to go after these criminals who are duping unsuspecting shoppers all over the world, these international partnerships are vitally important."[114]

While joint cooperation between content owners and law enforcement is an important tool in combatting online piracy, one should not overstate their impact. For instance, a recent report by analytics firm NetNames found that, although law enforcement action against MegaUpload and other cyberlockers appears to have had a substantial and lasting impact on the use of cyberlockers by content thieves, there is strong evidence to suggest that much of the infringing conduct that previously occurred through cyberlockers has simply migrated to other online distribution avenues:[115]

> The closure of MegaUpload also involved the closure of the streaming cyberlocker MegaVideo, an incident which in turn affected other popular streaming cyberlockers. Yet

this disruption did not have a similar permanent impact on infringing use of video streaming as for the direct download cyberlocker ecosystem. . . . Video streaming bandwidth consumption of all kinds has exploded over the last few years, increasing by over 170% between 2010 and 2012 in North America, Europe, and Asia-Pacific. Infringement through video streaming has increased even more dramatically: the amount of bandwidth devoted to infringing video streaming has grown by more than 470% over the same period, despite the loss of well-known hosts such as MegaVideo.

This demonstrates clearly how quickly online piracy can react to system events such as site closures or seizures. User behaviour is modified, often in moments, shifting from locations or arenas impacted by events to others that offer a comparable spread of infringing content via a similar or different consumption model. The practise of piracy itself morphs to altered circumstances, with use of video streaming and bittorrent escalating as direct download cyberlockers fell away.[116]

Recent legal reform efforts

In addition to these law enforcement efforts, lawmakers have adopted laws designed to confront the problem of theft-based online content businesses head-on. Two recent European experiments are particularly pertinent: The French HADOPI legislation and the UK Digital Economy Act, each of which builds to some extent on the EU E-Commerce Directive's efforts to articulate the balance of responsibilities between content owners and intermediaries in the online environment. On the one hand, each of these laws appears to have had at least some positive effect in dissuading users from stealing content and education them about the importance of copyright. On the other hand, neither law has achieved the level of deterrence hoped for, and both have raised concerns that, if not applied carefully, they might impinge on other critical values, such as freedom of expression, user creativity, and digital trade.

HADOPI

HADOPI is the acronym of the government agency created to administer the French law's "graduated response" to copyright infringement. Article L. 336-3 of the law provides that Internet subscribers themselves have an obligation to "screen their Internet connections in order to prevent the exchange of copyrighted material without prior agreement from the copyright holders."[117]

The first version of the French law (HADOPI 1) was passed by the French National Assembly and the French Senate in May 2009. After the French Constitutional Council ruled that the law contravened the 1789 Declaration of the Rights of Man, a second, slightly amended HADOPI law was passed in October 2009 (HADOPI 2).[118] Described as the "toughest anti-piracy legislation in the world,"[119] HADOPI 2 established a three-strikes mechanism for offending parties, which concluded with a fine of up to €1500 and suspension of the Internet connection for 3 to 12 months for users found to have downloaded infringing materials after two initial warnings.[120]

In 2011, the United Nation's "Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression"[121] labelled Internet access a human right[122] and held that HADOPI's three strikes mechanism was disproportionate. Such statements have made it difficult for elected French officials to aggressively support HADOPI. "Today, it's not possible to cut off Internet access," Fleur Pellerin, the French minister in charge of Internet policy confessed. "It's something like cutting off water."[123]

There is no doubt, however, that HADOPI has had a positive impact in reducing piracy and increasing sales of legal content. One research paper, by a group of economists from Wellesley College and Carnegie Mellon University, found that the increased French consumer awareness driven by HADOPI resulted in iTunes song sales increasing by 22.5% and album sales by 25%.[124] Interestingly, the paper found that the sales increase was much larger in genres that, prior to HADOPI experienced high piracy levels, such as Rap and Hip Hop, than in less pirated genres like Christian music, classical, and jazz.

HADOPI also seems to have had some positive impact on dissuading end users from accessing illegal content. A study by Peer Media Technologies suggests that HADOPI caused a 43% drop in the sharing of infringing works by French users on peer-to-peer networks during 2011. Meanwhile, 95% of first-time HADOPI offenders did not require a second notice. And 71% of French peer-to-peer users surveyed indicated that they would stop downloading illegal content if they received a HADOPI warning.[125]

Despite these successes, some have portrayed HADOPI as costly and ineffective, while others have raised concerns about the impact that temporarily suspending Internet access may have on users' ability to engage in free expression and access information. In light of these concerns, the French government announced in July 2013 that it would continue sending notices to users (as these had proven to be quite effective) and fining persistent infringers, but was dropping the criminal punishment of suspending users' Internet access.[126]

UK Digital Economy Act

Like the French HADOPI law, the UK's 2010 Digital Economy Act was designed to punish users accused of downloading pirated content.[127] Also like the HADOPI law, the UK legislation was originally conceived as a "three strikes and you are out" mechanism for blocking Internet access for persistent offenders – although the final legislation provides that implementing measures for such sanctions require the approval of both Houses of Parliament, a measure known as the 'super-affirmative procedure.'[128] And, like HADOPI, the logistics and fairness of the Act have been controversial, and the government has struggled to implement it.

It was revealed in the minutes of a May 14, 2013 meeting[129] attended by Ed Vaizey, the UK Minister responsible for the legislation, Google, ISPs, and copyright owners and associations that the "three strikes" warning letters under the Act would not be sent out until 2015 at the earliest. These letters were originally planned for 2011, thereby reflecting the implementation challenges of the legislation. In the meantime, copyright holders in the UK are now resorting to court orders to force ISPs to block infringing websites such as Pirate Bay – although none of the leading content owners view these costly and time-consuming procedures as a substitute for government-issued warning letters or related measures.[130]

The mixed experiences of the French HADOPI law and the UK Digital Economy Act underscore the challenges of crafting legal responses to the scourge of online piracy in ways that respect consumer interests and do not stifle innovation or investment. They also demonstrate the importance of educating consumers about the underlying values at stake and in crafting responses that are balanced yet effective.

Although time will tell whether experiments like HADOPI and the UK Act are ultimately successful, the experiences of these efforts suggest that legal reform is not the best—and certainly not the fastest—way to address online piracy.

So if legislation like HADOPI and the Digital Economy Act have not completely achieved their goals, what are the alternatives? For many, the most promising alternative is market-led solutions voluntarily entered into by leading companies across the content and technology sectors. And it is here we will next turn to review reforms that may represent the most viable strategy—at least in the short term—to curb theft-based businesses on the Internet.

Voluntary, Market-led Solutions: An Overview

Fortunately, leading companies across the Internet economy – including content creators, ISPs, search providers, payment processors, and others – have come together in several instances to adopt market-led solutions and best practices designed to combat the problem of theft-based online businesses. These market-led solutions should not be seen as competing with government-led schemes; rather, they complement and build upon government legislative solutions and enforcement. Indeed, many governments are enthusiastic about these types of market-based, industry-led solutions.

For example, Victoria Espinel, the former U.S. Intellectual Property Enforcement Coordinator (IPEC), embraced initiatives by private companies to voluntarily adopt best practices designed at reducing online piracy and counterfeiting, including:

- The voluntary 2011 agreement by AT&T, Cablevision, Comcast, Time Warner Cable, Verizon and both major and independent music labels to reduce online music piracy.[131]
- A best practices agreement signed by American Express, Discover, MasterCard, PayPal and Visa to withdraw card payment services to online businesses that sell or distributing infringing content.[132]
- A pledge by the Association of National Advertisers and the American Association of Advertising Agencies to oppose supporting online piracy and counterfeiting with advertising revenue.[133]

These and other voluntary initiatives are described in the sections that follow.

The Copyright Alert System

The U.S. Copyright Alert System (CAS) is the result of a Memorandum of Understanding (MOU) signed in July 2011 by ISPs including Verizon, AT&T, Comcast, and Time Warner Cable, and content industry organizations including the Motion Picture Association of America (MPAA) and the Record Industry Association of America (RIAA), as well as individual copyright owners such as EMI, Walt Disney, Sony, and Universal. The CAS is designed to address one specific form of online piracy: the use of peer-to-peer networks to distribute infringing video and audio content.[134]

The MOU established the Center for Copyright Infringement (CCI), launched in February 2013, which is tasked with developing an educational programme to inform the public about laws prohibiting copyright theft and encourage the use of legal content. The CCI states that "subscribers are responsible for making sure their internet account is not used for copyright infringement" and urges ISPs to restrict access to the Internet connections of repeat infringers.

Under the proposed system, content owners take on the responsibility of monitoring P2P sites to see if infringing copies of their works (*e.g.*, music, films, and TV shows) are being made available through the P2P network. If so, they notify the appropriate ISP and that ISP, in turn, passes on that notice to the individual subscriber as a Copyright Alert. Informally dubbed the “six strikes” initiative, the alert system comprises several steps. One of the noteworthy aspects of the system is that the initial steps focus on educating the consumer about the ramifications of their infringement, while the latter steps involve increasingly strong measures.

Specifically, where a user continues to infringe even after repeated warnings, member ISPs can take steps that temporarily affect that subscriber's Internet experience, including: a temporary reduction in Internet speed; a temporary downgrade in Internet service tier; or redirection for a set period of time to a landing page warning the subscriber about the consequences of copyright infringement, until the subscriber contacts the ISP or until the subscriber completes an online copyright education program.[135]

CAS may also deploy the latest technology in not only fighting unlicensed content but also providing content owners with tools to convert users seeking illegal downloads into legal transaction opportunities. In August 2013, the U.S. entertainment publication *Variety* reported that one of the MOU signatories, Comcast, has developed technology that would provide users of unlicensed content with transactional opportunities to access legal versions of copyright-infringing content that they are downloading.[136] *Variety* notes Comcast's new technology may or may not become a formal CAS or CCI initiative. However, "CCI has been notified of Comcast's interests," Variety reports, "and could step in to become part of its implementation."[137]

Although it is too soon to evaluate whether the CAS will lead to a meaningful reduction in content theft over peer-to-peer networks, one notable feature of the system is its creative use of graduated responses—relying on education for first-time infringers but providing the possibility of stronger measures against serial infringers. The system also provides a platform for greater collaboration and transparency between ISPs and content owners, while giving ISPs significant flexibility in their implementation of the system.[138]

Voluntary best practices for payment processors

As noted, many infringing websites rely on payment and card processors to collect subscriptions, transactions and donations. As noted in the Detica report discussed in Part II.A, the use of card processing services is particularly common on illegal music transaction sites.

In an effort to address this problem, several major credit card companies, such as American Express, Discover, MasterCard, PayPal, Visa, working in coordination with the City of London Police, voluntarily agreed to a set of best practices in June 2011 designed to cut off payment processing services to sites that distribute infringing content and goods.[139] The best practices include procedures for investigating complaints from rights holders and discontinuing payment services for sites that continue to operate unlawfully. The procedures adopted pursuant to the agreement also enable rights holders to interface directly with the payment processors and send a complaint specifying:[140]

- The website address and locations on that site where allegedly infringing material is being sold, clearly identifying the infringing material.
- Evidence that the payment processor's services are being used to purchase the allegedly infringing material.
- If available, copies of either a Digital Millennium Copyright Act (DMCA) notice or cease-and-desist letter to the allegedly infringing merchant.
- A statement that the rights holder in fact owns the rights to the infringing material.

Many, including in the content community, have praised this voluntary agreement for creating more communication and transparency between payment processors, rights holders and law enforcement agencies and for simplifying the process of taking meaningful, cost-effective actions against infringing businesses without imposing undue burdens on the payment processors themselves. For instance, the IFPI has said of the initiative:

> It is extremely positive for the recorded music industry that the world's largest payment systems are taking steps to prevent their services being abused by illegal websites that infringe the rights of artists, songwriters and producers. Intermediaries, such as MasterCard and Visa, can play a key role in tackling online piracy wherever it originates around the world. We commend the City of London Police for the key role it is playing in coordinating the programme. This demonstrates that it understands the damage these rogue websites are inflicting on jobs and growth in the UK and around the world.[141]

Payment card processors endorsed the initiative as well. As noted by Elieen Simon, MasterCard's World Chief Franchise Development Officer, "[a] coalition approach such as this will enable us to prevent our system from being used to carry out this illegal activity and will help protect the livelihoods of artists, legal rights holders and legitimate e-commerce merchants selling properly licensed material."[142]

Best practices guidelines for ad networks

As explained in the Detica report discussed in Part II.A, many infringing websites rely on advertising to generate the revenues needed to fund their illegal operations. Advertising plays "a key role" in at least three of the segments investigated by the report. In Live TV Gateway, the fastest growing business model, advertising was found to fund 67% of the sites, while in P2P Communities, the second-fastest growing segment, 86% of sites were found to generate revenue from ads.[143]

Given that advertising and online ad networks are financial enablers to so many infringing websites, the coming together in July 2013 of a coalition of eight advertising networks and technology companies with leading content owners was welcome news. Coordinated by former U.S. IPEC Victoria Espinel and the U.S.-based Interactive Advertising Bureau (IAB), the *Best Practices Guidelines for Ad Networks* has been signed by several leading online advertising suppliers, including 24/7 Media, Adtegrity, AOL, Conde Nast, Google, Microsoft, SpotXchange and Yahoo![144]

As Ms. Espinel noted in a recent blog post, these best practices are designed to "address online infringement by reducing the flow of ad revenue to operators of sites engaged in significant piracy and counterfeiting."[145] Ad network signatories agree to adhere to four best practices:

1. Maintain policies prohibiting websites that are principally dedicated to selling counterfeit goods or engaging in copyright piracy and have no substantial non-infringing uses from participating in the ad network's advertising programs and post such policies on the ad network's website.
2. Maintain and post these best practices guidelines on the ad network's website.
3. Include language in the ad network policies indicating that website customers should not engage in violations of law.
4. Participate in an ongoing dialogue with content creators, rights holders, consumer organizations, and free speech advocates.[146]

Advertisers and online intermediaries generally praised the best practices. Randall Rothenberg, the CEO of the IAB, noted that by "bringing these disparate parties together at the same table, we have been able to establish guidelines that strictly protect copyrights, while allowing the digital economy to flourish."[147]Susan Molinari, VP of Public Policy and Government Relations at Google, concurred, stating that, "[b]y working across the industry, these best practices should help reduce the financial incentives for pirate sites by cutting off their revenue supply while maintaining a healthy Internet and promoting innovation."[148]

The content community's reaction, by contrast, has been less enthusiastic. Content creators note that those ad networks most guilty of displaying ads on illegal sites are not involved in the coalition.[149] They also argue that the Best Practices place too much burden on rights holders to identify websites selling pirated content and do not require enough from ad providers, and therefore that the practices represent only "an incremental step forward" in the struggle against online piracy.[150] It also is noteworthy that in this initiative—in contrast to the CAS and payment processor initiatives described above—the market is dominated by Google, which by all accounts has been quite reluctant to take on any responsibilities beyond those required by law.

An alternative and, perhaps, more effective strategy is the Online Brand Safety Initiative pioneered in 2013 by the UK's Institute of Practitioners in Advertising (IPA) and The Incorporated Society of British Advertisers (ISBA).[151] This ISBA/IPA initiative involves a trial group of 13 intermediary advertising businesses – including Glam Media, Quantcast and Adap.tv – who have committed to independent verification of their brand safety policies. This promising initiative promotes the use of third-party technology such as the online risk assessment tool White Bullet, which alerts advertisers when their brands appear on IP infringing websites.

Technology solutions

Another area where voluntary, market-led actions may lead to progress is technology solutions. For instance, companies such as Audible Magic, Vobile, and others today offer automated tools and services that can help online content networks efficiently identify files that appear to infringe copyright. Using a combination of digital fingerprinting and other technologies, these services are designed to enable network operators to scan content stored or made available on their networks, and then block access to infringing content or take other appropriate action.

The efforts of ICOMP members CEPIC (Centre of the Picture Industry) and the American Society of Media Photographers (ASMP) provide another useful example of how technology solutions combined with voluntary initiatives can achieve measurable results (see case study). These and similar technology solutions may well be the best counter to the misuse of technology by content thieves.

Case study: CEPIC and ASMP

Great photos and images have the ability to inform, amaze, and delight. They bring life to words and turn facts into stories. They are part of the fabric of our cultural heritage. Copyright is the engine that drives professional photography. Without effective copyright protection, photographers cannot control re-use of their works and thus cannot capture their full commercial value. Today, however, unlicensed copies of images are among the most frequently shared works online.

For decades, ICOMP members CEPIC and ASMP have represented the interests of photographers in Europe, the United States, and around the world. In an effort to combat online image theft, CEPIC and ASMP are introducing a number of innovations and best practices to enable photographers to track and monetise their copyrighted images, including secondary uses. These CEPIC and ASMP efforts have been in cooperation with the European Commission, the UK Copyright Hub, the PLUS Coalition, the Linked Content Coalition, the US Copyright Office, and other European and US trade associations.

The Linked Content Coalition ("LCC") is an alliance of content partners such as Axel Springer, Hachette Livre, Gruppo Expresso and Pearson. In an effort to promote the automated management of online rights, LCC has developed a Rights Reference Model that identifies online works and establishes a kind of digital copyright exchange, and a set of best practices for identifying and messaging how users can access rights data and acquire licenses. The LCC does not itself create new standards, but supports an interoperability infrastructure for the creative industries to use their own standards. This model is currently being tested through a project called Rights Data Integration, co-funded by the European Commission.

The importance of market competition

Today, key sectors of the Internet are dominated by a single firm with market power, whose actions have inordinate influence on other market participants. These actions leave creators with little leverage to press for voluntary solutions and reduce incentives for smaller players to undertake new obligations. The lack of market competition also may prevent the emergence of new technologies or business practices that could foster more effective responses to online theft.

As already noted, Google dominates online search, including in almost all major markets in Europe. YouTube is the market leader in online video and has very little competition in user-generated video. Google is also increasingly dominant, perhaps even a near-monopolist, in online advertising.

So while market-led solutions are a good step forward, it is important to remind ourselves that, in those markets where competition is lacking, it may prove challenging to convince the dominant firm to meaningfully participate in voluntary arrangements, or for such arrangements to achieve effective outcomes. The problem is twofold. First, given their market power, dominant firms generally feel less market pressure to adopt responsible business practices, particularly where these practices may impose additional costs or reduce revenues. Second, no other company can afford to take on such responsibilities if the market leader refuses to do so, since that will make any prospect of real competition just that much slimmer.

This is, of course, one more argument in favour of antitrust enforcement. It also underscores the important role that officials like the City of London Police and the IP Enforcement Coordinator in the United States may play. Industry and trade associations likewise have an important role in putting pressure on dominant firms to change their ways. While these market-led coalitions are, by definition, voluntary, it is vital that market leaders actively participate in them and lead the charge in finding mutually agreeable solutions.

But while a lot of positive work has been accomplished by voluntary mechanisms and best practices, there still remains much to be done if we are to truly counter the infestation of online piracy. And so our concluding section lays out five initiatives which, we believe, can most effectively build on the achievements of market led solutions laid out in this section.

Principles for Further Work

The initiatives described above demonstrate important progress in the effort to combat online content theft. Yet each, to varying degrees, is still in its infancy, and it is too early to say which of them will be effective.

It is not too soon, however, to draw lessons from them and to derive some guideposts for the future. The following principles seek to distil what is best from the existing universe of voluntary initiatives and best practices. They are not intended to mark the end of the discussion, but rather a beginning. Ideally they will provide a platform to help build consensus across the Internet ecosystem, provide a basis for future work on voluntary mechanisms, and ultimately benefit consumers by spurring innovation in online services while expanding access to the best films, music, books, and other creative works the world has to offer.

1. ***Copyright owners and online intermediaries have a shared, long-term interest in promoting consumer access to legitimate sources of content and combating online theft.***

Copyright owners and online intermediaries—including search engines, payment processors, and ad networks—exist in a virtuous cycle: Innovations by intermediaries afford consumers new ways to engage with content, which drives demand for new content from the creative industries. More content, in turn, gives consumers more reasons to adopt technologies and services through which they can access such content. Copyright owners and intermediaries thus have a shared long-term interest in promoting access to legitimate sources of online content and combating online theft.

2. ***Solutions should be implemented in ways that are consistent with applicable law and respect fair use, privacy, robust competition, free expression, and due process.***

All online actors have a shared interest in preserving fair use and similar exceptions to copyright, as these often give consumers the “breathing room” they need to enjoy lawful copies of works to their fullest. Voluntary solutions should also be sufficiently flexible to promote robust competition and preserve user interests in privacy, freedom of expression, and due process.

3. ***Copyright owners and online intermediaries should seek solutions that facilitate transparency and enable meaningful, cost-effective action.***

A common trait of successful voluntary initiatives is that they facilitate communication and transparency between content creators and online intermediaries. Transparency builds trust and helps avoid either side taking actions that are ineffective or impose undue burdens on others.

4. ***Graduated responses can increase effectiveness while preserving consumer interests.***

Some online theft occurs casually, while other theft—particularly by commercial actors—is undertaken intentionally and repeatedly. For users in the former category, initiatives undertaken to date show that education often may be enough to change behaviour, especially when combined with opportunities to access lawful content. At the same time, many creators are finding it difficult to deal effectively with serial infringers, especially those who infringe for profit. More work needs to be done on developing solutions that diminish the ability of repeat infringers to use online intermediaries in support of their illegal activities.

5. ***Market leaders need to lead the charge.***

Market-led solutions can't work without an open market. The problem with certain sectors of the Internet economy is that they have come to be dominated by a single firm with market power. Voluntary-led solutions will succeed only if market leaders actively participate in them and lead the charge in undertaking practices that minimise the misuse of their services by copyright thieves.

Conclusion

As described in this report, the Internet represents both the best and the worst of times for the creative economy. On the one hand, the Internet has sparked unprecedented growth in consumer access to and enjoyment of content; on the other, it has unleashed an epidemic of theft-based businesses that are weakening the economic viability of critically important sectors such as recorded music, films, book publishing, photography and newspapers.

So what is it to be? Are we on the verge of a cultural Renaissance or a cultural Dark Age?

Both scenarios are possible. But this paper is optimistic about the prospects for our creative economy in the Internet age. As the destructive consequences of theft-based businesses have become increasingly self-evident, responsible industry leaders—from media and technology companies to law enforcement agencies and advertising coalitions—are beginning to recognise that the law itself, while providing an important baseline of rules, is insufficient on its own to counter this scourge. In many case, these sectors have come together to create voluntary mechanisms and best practices to address the problem of theft-based online businesses.

Yet our optimism remains tentative. We recognise that much more collaboration is still required, especially in harnessing the power of dominant firms to fight the epidemic of online piracy. As with the Internet economy itself, we believe that innovation is key. This war cannot be won by clinging to the status quo. To beat online theft, the creative and technology industries need to collectively change the rules of the game. They need to outwit the pirates through perpetual disruption. And market leaders need to lead the charge.

The stakes could not be higher. It is a battle that will determine the economic and cultural fate of creativity for the 21st century and beyond. If theft-based businesses win, then millions of people will lose their jobs and many millions more consumers will lose the opportunity to enjoy great books, songs and movies. No, the stakes certainly could not be higher. This is a war that must be won.

About the author

Andrew Keen is an Internet entrepreneur who founded Audiocafe.com in 1995 and built it into a popular first generation Internet company. He is currently the host of the “Keen On” show, the popular Techcrunch chat show, a columnist for CNN and a regular commentator for many other newspapers and radio and television networks around the world. He is also an acclaimed speaker, regularly addressing the impact of digital technologies on 21st century business, education and society. He is the author of the international hit *CULT OF THE AMATEUR: How The Internet Is Killing Our Culture*, which has been published in 17 different languages, and *DIGITAL VERTIGO: How Today’s Social Revolution Is Dividing, Diminishing and Disorienting Us*, his controversial critique of contemporary social media.

About ICOMP

The Initiative for a Competitive Online Marketplace (ICOMP) is a world-wide industry initiative for businesses and organisations involved in Internet commerce. Our overall mission is to encourage widespread support for the principles that are essential to a healthy and competitive online marketplace. To this end our work focuses on four main pillars: privacy; data security; respect for intellectual property; and competitive markets.

Our world-wide membership is drawn from over 70 companies, trade associations, consumer organisations and individuals based across Europe, the United States, South America and the Middle East. The ICOMP Council is comprised of international organisations: such as ProSiebenSat.1; the FA Premier League; Microsoft; Nextag; Buscapé; and Mediaset, membership organisations: such as CEPIC; PPL; ASSOFT; ASMP; VIR; as well as small and medium sized businesses: such as Foundem; Streetmap; Bottin-Carto; Emarketing Experts; and One News page. Thirty companies and organisations make up the ICOMP Council.

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