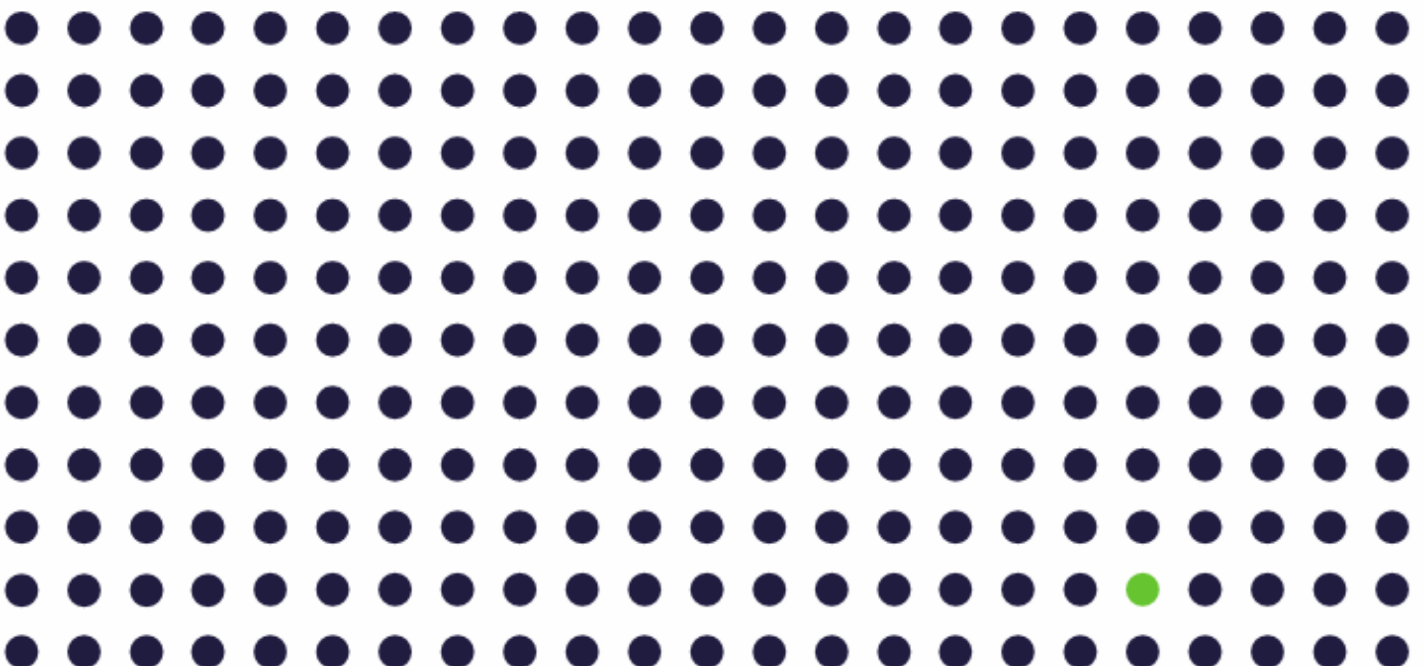


The revenue sources for websites making available copyright content without consent in the EU

March 2015



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Executive summary

Incopro was commissioned by the Motion Picture Association (MPA) to conduct this study into the revenue sources for websites making available copyright content without consent in the EU. Incopro has worked on this in co-operation with MediaLink LLC, who have undertaken a thorough review of the data collected and the report findings.

This report analyses the revenue sources for the 250 most popular websites accessible to users in key territories in the European Union (Germany, Spain, France, Italy and the United Kingdom) as of September 2014 when the data was collected. These websites are identified by Incopro's Infringement Index; sites that either infringe copyright or that facilitate infringement of copyright (whether knowingly or not), by making available films and television programmes to the public, without the licence or consent of the owners of the copyrights in those works ("top 250 unauthorised sites/sites").

Key findings

This study has found that there are a number of intermediaries that are the clear "leaders" in ensuring a steady flow of advertising revenue to sites scrutinised by Incopro. Moreover, the advertising is often itself unwanted and potentially harmful to users, including in particular the most vulnerable members of society. For example, just under one-third of the total number of "adverts"¹ viewed in this study were in the trick button/malware category, where a click on the "advert" could potentially infect the user's computer with malware and bots, potentially perpetrating fraud and possibly compromising user data. Often, removing such malware requires expertise that necessitates the consumer spending money in repairing his or her computer. The next most prevalent types of adverts featured on the unauthorised sites identified in this report were gambling and adult content, both of which are high risk categories in terms of the potential impact on visitors to the websites, particularly those users who are most vulnerable, such as minors. Furthermore, in some cases, the well-known brands of major corporations are advertised on the sites identified in this report, to the detriment of their image, and at the same time the sites are damaging the creative sector and consumers. Given the reliance on advertising, concerted effort should be made by brands, agencies, and where possible, the authorities, to work together to take action against the various intermediaries to degrade the sites' revenue streams and threaten their continued operation.

This study also demonstrates that more could be done by leading payment providers, as they are still featuring as payment providers for sites in the top 250 unauthorised sites in each of the following key countries in Europe; France, Germany, Italy, Spain and the UK².

The following are the key findings from this study:

- 570 out of the total 622² sites (91.6%) examined in this study have at least one source of revenue;
- Advertising is the predominant revenue source for the top 250 unauthorised sites and is the most important issue to tackle to have an impact on the revenue generated by the top 250 unauthorised sites in Europe;

¹ The term "adverts" has been used in this context to refer to those adverts which to the user do not look like they are advertising goods and services. They appear as buttons allowing user interaction and they are served in the same way as all other advertising.

² The top 250 unauthorised sites from each country overlap due to their widespread popularity, and when combined create a total of 622 sites examined for this study.

- Payment methods are also a key concern, especially in relation to hosting sites;
- AdCash, PropellerAds/OnClickAds³ and DirectREV are the top three intermediaries to serve adverts across all unique sites in this study;
- When looking at the complete dataset broken down by country, it is clear that the same two intermediaries serve the greatest volume of adverts across all five countries - AdCash and PropellerAds/OnClickAds. Two different intermediaries emerge in the top 10 in Italy, Germany and the UK - Exoclick and Zedo. In France, Pubdirecte and Affiliation France appear in the top 10 by volume;
- PropellerAds/OnClickAds and AdCash are the most frequently occurring intermediaries on both Hosting sites and Linking only sites. For Public P2P portals, the top 3 most frequently occurring intermediaries are slightly different, DirectREV, AdCash and PropellerAds/OnClickAds.
- Given that Incopro has identified that users will typically encounter potentially harmful software from trick button/malware adverts when using a number of the sites in this study, awareness and outreach campaigns around this issue could be further undertaken to help to discourage the use of these unauthorised sites.

The advertising ecosystem has become increasingly complex over the years and a deeper understanding of it may present additional opportunities for disrupting revenue streams. The data collection for this report concentrated on the intermediaries delivering adverts on the website, but there is opportunity to explore working with other ecosystem players to disrupt the flow of ad revenue. One possible approach to this would be to engage with the Content Delivery Networks (CDNs), which do not serve the adverts independently but cache the creative elements that are called by ad tags served by other intermediaries. Consideration should be given to approaching the leading CDNs and working with them to explore their involvement and where possible to block adverts served to unauthorised sites.

With regard to direct payment, the following should be noted:

- 108 test purchases were conducted across 30 of the 142 sites identified as having payment methods available. Payments were made successfully by the originally requested method (i.e. requesting to pay by Visa payment card for example, and ultimately completing payment with that Visa card) for 27 of these websites. However, there are multiple methods of completing these purchases, described below, which add complexity to the effort of blocking the flow of revenue;
- One third of the test purchases were completed directly through the requested payment method and the remainder were completed by one of 3 different ways as described below; processed via a third party, by a virtual wallet, or by a reseller. The 3 websites where payments differed from the original method was due to the involvement of resellers and virtual wallets not accepting the original purported method of payment;
- A third of sites in the sample processed payments directly via programmatic requests and, for these sites, the identified payment processor could be contacted, and details of the site provided. Visa and MasterCard, the most observed payment service providers in this study, have been reactive to notifications in the past but a more proactive approach may stop merchant accounts being set up in the first place. In the same way that the major global Brands clearly do not wish to be associated with infringing websites because it affects their reputation, these companies may feel the same;

³ For the purposes of this report PropellerAds and OnClickAds are classed as one intermediary, as they are part of the same company.

- Payment processors such as Liqpay handle the transaction on behalf of the site rather than the site operator having to implement the payment programmatically, and this method was available on 12 out of the 30 tested sites. A suspended merchant account was observed during this type of transaction, indicating that there are also steps that can be taken to prevent payment processing.
- Another type of transaction observed was that carried out via virtual wallets, including services such as Google Wallet, RoboKassa and PayPal (the top three most observed) also an option available on about a third of the sample of websites. These services allow users to add funds to a virtual wallet, which stores the value and can then make a payment to someone else's wallet. These sorts of wallets are potentially harder when trying to link payments to a specific site as a site operator could register as an individual, rather than a business, to receive payments. The use of an intermediate step, such as a fake charity website, may indicate that these donations are being deliberately disguised, to hide the true recipient of the money from PayPal itself. In this instance, sites would need to be investigated and the intermediate accounts disrupted on a site-by-site basis.
- Resellers make a business out of selling access to the hosting sites that are key to infringement of copyright. The resellers group is therefore different from the previous scenarios described above, as they are not a payment processor themselves and should be looked at as a separate issue outside the scope of this report. Resellers were also in use on approximately a third of the sites in this sample.

Introduction

The harm occasioned by the large-scale infringement of copyright occurring in the use or operation of the unauthorised sites that are considered in this study accrues to the entire creative sector including creators and others that are employed by the creative industries. Furthermore, the harm accrues to governments, through lost tax revenues and illegality online, and to the general public, through a decrease in choice and through exposure to other dangers that are commonly associated with many of the websites examined in this study (such as malware) and a lack of control over the age range of consumers who have access to these sites).

Advertising revenue and monies received from site users are the lifeblood of the sites in the key territories considered in this study. These revenues provide the economic incentive for the operators of these sites. Understanding how these revenues are derived is critical in identifying appropriate means to undermine such revenue sources and thereby to undermine the operation of sites like those considered in this study.

Incopro has undertaken an analysis of two key revenue sources for websites that infringe and/or facilitate infringement of copyright:

1. Monies received from companies whose advertisements appear on the sites, whether inadvertently or intentionally.
2. Monies received from users who are either paying for a service offered by the site or making a donation to the site's operator(s) via payment methods such as Visa, MasterCard or Bitcoins.

This report analyses the revenue sources for the 250 most popular websites by estimated usage, accessible to users in key territories in the European Union (Germany, Spain, France, Italy and the United Kingdom) as of September 2014 when the data was collected. These websites are identified by Incopro's Infringement Index (using the criteria identified in Appendix A) as sites that either infringe copyright or that facilitate infringement of copyright (whether knowingly or not), by making available films and television programmes to the public, without the licence or consent of the owners of the copyrights in those works ("top 250 unauthorised sites/sites"). In total, 622 unique sites were considered in this study.



In analysing the key advertising and payment intermediaries involved, together with the industries and companies advertising on the top 250 unauthorised sites, the purpose of this report is to highlight the following:

- Sources of revenue for the sites in each country and the source of revenue for each category of site in each country;
- Top 10 advertising intermediaries in each country and their roles within the advertising ecosystem;
- Companies advertising on the top 250 unauthorised sites, by industry (vertical) and brand;
- Payment methods offered and which ultimately facilitate payment on the top 250 unauthorised sites;

Methodology

A full methodological note is contained in Appendix A for reference.

Site selection and categorisation

The sites chosen for the study comprised the top 250 unauthorised sites in each country as determined by their popularity in August 2014. This measure of popularity is based on Incopro's formulation of an estimated usage metric based on Alexa data. This is Incopro's translation of Alexa data into a metric suitable for showing trends in the usage of sites over time (see Appendix A for further detail). This has been calculated for this set of sites using data for the month of August 2014 for the five largest European Union Member States: Germany, Spain, France, Italy and United Kingdom ("UK"). The top 250 unauthorised sites from each country overlap due to their widespread popularity - the total number of unique websites in this study was 622 (see Appendix B for a full list of sites).

The 622 sites were categorised in terms of their type: Hosting, Linking only and Public P2P portals (definitions of these three categories can be found in Appendix A). These three categories have been used because sites in these groups have different business models and make content available in different ways. It is therefore helpful to see if there are particular intermediaries that should be prioritised when analysed in relation to a particular site type.

Advertising intermediaries

Advertising intermediaries were categorised according to their primary role in the industry, for example Ad Network or Ad Exchange, to enable a more accurate analysis of the type of company serving the adverts.

Where possible, Incopro has identified the advertising intermediary responsible for delivering a particular advert (also referred to as the "creative") to the unauthorised sites that have been examined in this report. This has been done by manual analysis of the web pages displaying the advertising and also by using tools to examine the calls that have been made to the various servers involved in the process of serving the advert. This has ensured that Incopro has analysed what is believed to be the intermediary directly serving the creative to the website. Advertising intermediaries were then categorised according to their primary role in the industry, for example Ad Network, or Ad Exchange, to enable a more accurate analysis of the type of company serving the adverts (descriptions of the various intermediaries can be found in the section "Advertising on the top 250 unauthorised sites").

This analysis is intentionally "non-behavioural", which means that the advertising that Incopro detected was not based on retargeting prompted by any cookie on the computers or proxies used to access the sites covered by this study. Each site was accessed in a way that ensured no preferences or interests were revealed by Incopro to the website in question. When Incopro recorded the advertising on a site, this was not prompted by any particular interest. The reason for this approach is to ensure results that are neutral and

unbiased. Cookies can track what terms a user entered into a search engine, items that the user browsed on a page, and whether a user left a page without buying anything, so the advertiser can later retarget the user with adverts from the site the user visited.⁴

Advertisers may also deliver adverts based on a user's suspected geography through 'geotargeting'. A user's IP address communicates some geographic information (at a minimum, the user's country or general region). The geographic information from an IP can be supplemented and refined with other proxies or information to narrow the range of possible locations. Therefore, for this study, proxy servers were used in each country to ensure that access to the unauthorised sites was clearly perceived by the target websites as access from the country in question. This ensured that Incopro could identify if there were any differences in adverts and intermediaries for the websites accessed from the different countries covered by this study. Whilst this method is very effective for the vast majority of sites, it is possible that the site may still have blocked access if it suspected the user was hiding their location.

It is important to note that the methodology employed by Incopro replicates what a user would experience when making a single visit to the unauthorised site. All data is a once in time view of the sites visited and does not account for all possible adverts served.

The adverts observed in this analysis have been categorised according to industry standard verticals, as used by comScore, such as Entertainment, Adult and Retail. Due to the high volume of deceptive adverts observed during this process, an additional category called 'Trick button/PUP'⁵ was added to capture this element of activity separately.

⁴ "What is retargeting and how does it work?", ReTargeter - <https://retargeter.com/what-is-retargeting-and-how-does-it-work> [accessed 19 December 2014]

⁵ Potentially Unwanted Programs (PUPs) is a term coined by the internet security company McAfee to describe bundled software that may include programs not wanted by the user. These unwanted programs can exhibit malware-type behaviour but their installation has been agreed by the user.

Payment intermediaries

Regarding the payment methods used for the sites in this study, Incopro has used a two-stage approach to determine those payment intermediaries facilitating payment to the sites. The first stage was to look at all sites in scope from each of the five countries and determine the payment methods featured by the websites themselves. The second stage took a statistically robust sample of 30 sites that purported to take these payment methods (28 were Hosting sites, 2 were Linking Only and there were no Public P2P Portals). This is accepted as a valid sample for a population of this size⁶ (142 sites) and made the analysis proportionate in terms of cost and time. Purchases were made from this sample to determine the actual payment method used in the transaction.

Data limitations

The following points should be noted in relation to the data used for this report:

- The data was collected in September 2014, and so newer, popular sites may not have been captured in this study.
- In order to determine the top 250 sites for this study the measurement of usage of websites according to Alexa data was used, so the most popular sites were determined based on the highest usage. The top ad networks were determined based on volume of adverts served as well as the number of sites served. No correlation has been made between those two metrics in this report.
- Occasionally there are no adverts displayed on link sites. This may be due to the link site redirecting users towards a hosting platform where advertising is displayed. It is possible that a relationship exists between the link site and the hosting site that ensures a revenue flow back to the link site and therefore removes the need for the link site to carry advertising. This association may not be obvious without additional research or investigation.
- When a user clicks on a link that is provided on a link site, they may be redirected via a service such as AdFly or LinkBucks. The purpose of these sites is to display advertising prior to the user reaching the host site. This provides revenue to the link site on a per click basis, but therefore negates the need to display advertising directly on the site. This type of advertising has not been taken into account for this study. The same is true where links posted on a site may be protected via a URL shortening, or link protector service such as TinyURL.com or dl-protect.com.

⁶ Please see "Mathematical Statistics and Data Analysis", John A. Rice (3rd Ed., 2007), Chapter 7, page 218



Analysis and findings

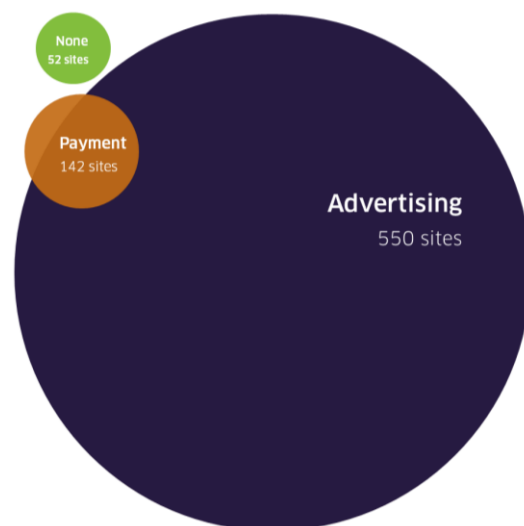
This section of the report sets out the analysis undertaken by Incopro and the conclusions that can be drawn from the data collected.

The analysis is set out in three main parts. Firstly, an overall analysis of the sources of revenue for the top 250 unauthorised sites showing the nature and scale of the two key revenue streams, advertising and payment methods. Secondly, an analysis of the advertising intermediaries, which focusses on the key advertising intermediaries and their roles within the ecosystem, the types of industries (“verticals”) and companies advertising on the unauthorised sites. Following that, the third section examines the payment methods proffered on the unauthorised sites and those ultimately processing the payments on the sites.

Overall analysis of revenue sources

The top 250 unauthorised sites for the five European Union countries in scope for this report constituted a total of 622 unique sites (the full list of sites can be viewed in Appendix B). Analysis of sites where at least one advert or one payment method was observed shows that the vast majority of sites carry advertising. As illustrated by the diagram on the right, 550 sites out of the 622 (88.4%) carried advertising and 142 sites offered at least one form of payment method. The overlap between the two groups gave a total of 122 sites that contained both advertising and payment methods. 52 sites did not carry either advertising or accept payment.

This means that 570 out of the total 622 sites (91.6%) examined in this study have at least one source of revenue.



When looking at each country’s top 250 unauthorised sites, advertising still dominates with at least 219 sites in each country carrying advertising. The following bar chart shows the breakdown by country, with the light blue area showing where there is an overlap of both advertising and other payment methods:

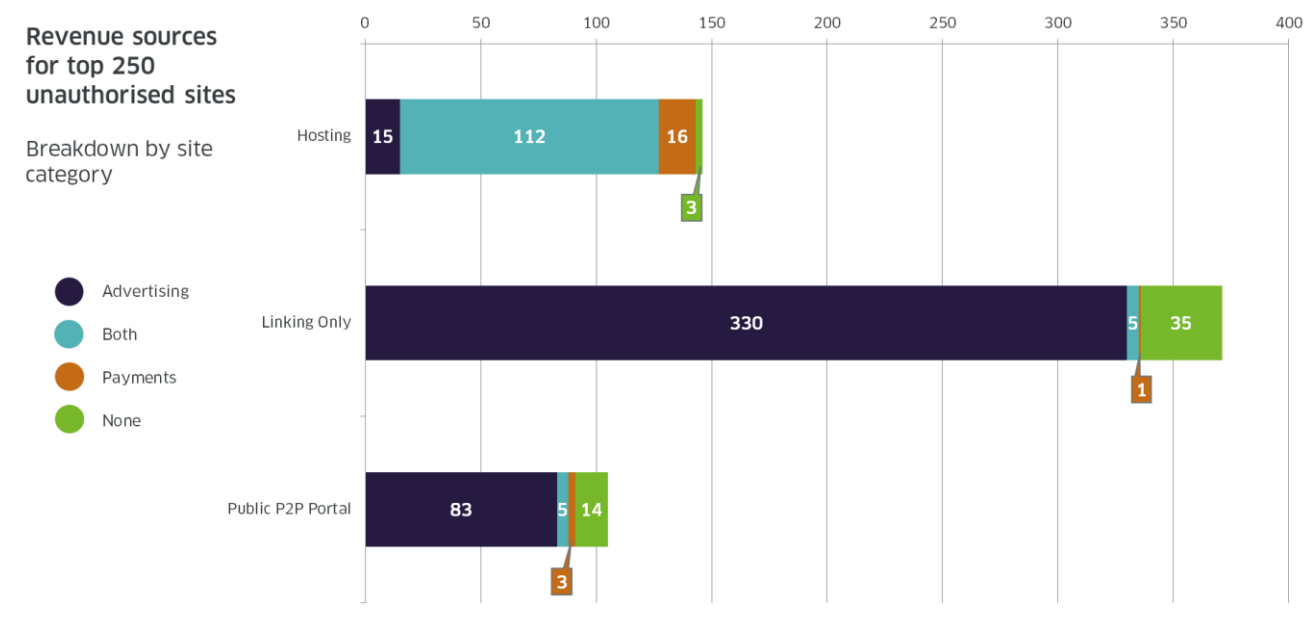


France and Italy stand out as the two countries with the most sites carrying advertising only. This is a result of a higher proportion of Linking Only sites in the top 250 unauthorised sites for these two countries. We will examine the landscape in relation to site category below.

Whilst advertising is the largest revenue source across all countries, the cross-over with sites also offering payment methods should be noted. Sites offering payment methods only are a very small proportion of the total, with no more than 11 sites in each country falling into this group. At least 62 sites per country have an overlap between the two revenue streams.

There are no more than 20 sites (8%) in each country that do not have one of these two revenue streams (52 out of 622 in total, listed in Appendix B). Looking at these sites, the vast majority have a low Alexa estimated usage of below 30,000 (this means the site is considered relatively low in popularity - a full Alexa usage methodology can be found in Appendix A). The exception to this are three German language forum sites, Boerse, MyGully and HD-Area, which are very popular in Germany with Alexa Estimated usage as high as 911,278 in the case of Boerse. Most of the 52 sites are Linking Only sites, which appear to be forums or blogs with a small community of users. The absence of adverts and payment methods on these sites may suggest other factors are involved in supporting the sites, such as buying VIP access to a forum once you have been a member for a period of time, or the community carrying out the necessary technical support and hosting needed to run the site.

Turning to look at the categories of site and the revenue streams associated with them, the following chart shows the breakdown of revenue source by site category:



The chart clearly shows that for hosting sites, both advertising and payments are utilised, with 112 sites having both revenue streams. All but 3 hosting sites had a revenue source. Linking Only and Public P2P Portals show a very different picture, with sites having a predominantly advertising only model.⁷ These findings are to be expected when thinking about the features of each site category. This is because Hosting sites often give users the chance to sign up for ‘premium’ access to download faster, or with no bandwidth or data limits, or to avoid seeing advertisements, so a high proportion of payment methods would be expected. Likewise, the other two categories do not charge anything for access or to make use of the links posted. Their revenue therefore comes largely from advertising, given the high numbers of visitors that will be attracted to the sites.

From the above analysis, it is clear that advertising, as the predominant revenue source, is the most important issue to tackle to have an impact on the revenue generated by the top 250 unauthorised sites in Europe. Payment methods are also a key concern, especially in relation to hosting sites. The further analysis in this report will assist in understanding these two problems in more detail.

⁷ Although out of scope for this study, private P2P portals are quite different in their revenue generation as they tend to sell VIP access or privileges and/or ask for donations. This is usually done via payment processors and negates the need for advertising on their pages.

Advertising on the top 250 unauthorised sites

Internet advertising is widely used across virtually all industry sectors with global revenue predicted to increase to US\$194.5bn in 2018. This represents a 10.7% Compound Annual Growth Rate based on the 2013 figure, which stood at US\$117.2bn.⁸ Online advertising revenues in Europe totalled €27.3bn in 2013, an increase of 11.9% from €24.4bn in 2012.⁹ It is clear therefore that there is strong growth in this area and revenue to be made by all involved in the advertising ecosystem.

This ecosystem has become increasingly complex over the years.¹⁰ As business models have evolved, the need for new roles within this ecosystem (such as Ad Exchanges) has emerged. Historically, there were simple relationships between website owners (“publishers”) and the Ad Networks they used, which made it easy to identify those facilitating revenue generation. As this ecosystem has become more complex, so it has become more challenging to establish the parties with knowledge of the adverts delivered and that can therefore be approached in order to frustrate the supply of revenue to operators of unauthorised sites.

An Ad Network is a company that aggregates ad space inventory from a number of publishers and makes it available to advertisers. The network collects payments from the advertisers - whether directly or indirectly through agencies or other intermediaries - and in turn pays the publishers, taking a fee that typically is based on the number of adverts served. There are many different types of Ad Networks, some specialising in advertisers from particular industries or perhaps in particular platforms or media, i.e. mobile or video. The creative will often be served by the Ad Network’s servers, in some cases augmented by a Content Delivery Network (CDN) used by the Ad Network to speed up the process of serving the advert to the page.

Ad Exchanges developed in response to the plethora of Ad Networks that traded and sold inventory in different ways. They aggregate Ad Network inventory in order to solve the risk of an advertiser buying the same audience via several different Ad Networks, and facilitate automated auction-based pricing and real-time buying of adverts. With integration of additional data sources, Ad Exchanges provide an efficient way of targeting audiences in addition to simply buying inventory. This brought some choice into the market and advertisers could therefore choose how they wished to carry out their advertising campaigns.

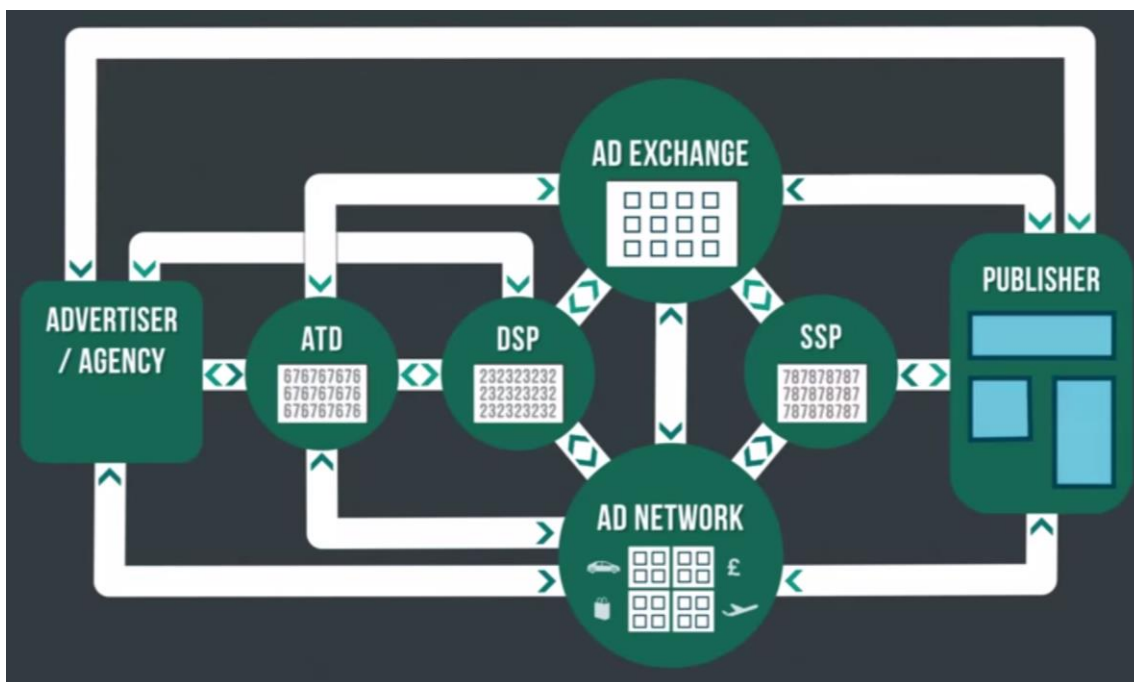
An Ad Exchange may also be responsible for the serving of adverts to websites as advertisers can choose to use tags within the platform to cut down on the need for a third party such as an ad server or Ad Network to host the creative. As the bidding process for the advert is internal to the Ad Exchange and the creative may be hosted by the same platform or others, it is not always possible to tell independently which Ad Network may have been involved in the transaction. This has led to Ad Exchanges appearing as top advertising intermediaries as Incopro has aimed to trace the intermediary directly serving the advert to the website. In order to remove this layer of aggregation, and to clearly represent the Ad Networks involved, Ad Exchanges have been excluded from analysis of the top intermediaries.

⁸ “Internet advertising: Key insights at a glance”, PwC - <http://www.pwc.com/gx/en/global-entertainment-media-outlook/segment-insights/internet-advertising.jhtml>

⁹ “IAB Europe AdEx Benchmark 2013 Full Report”, IAB Europe (11 July 2014) - http://www.iabeurope.eu/files/8014/1111/3050/IAB_Europe_AdEx_Benchmark_2013_Report_v3.pdf

¹⁰ There are some helpful resources provided by the IAB (<http://www.iab.net/>) and by Luma Partners such as the Display LUMAScape (<http://www.lumapartners.com/lumascapes/display-ad-tech-lumascapes/>) which aid understanding of this complex ecosystem. A glossary of terms can also be found on IAB’s website: <http://www.iab.net/wiki/index.php/Category:Glossary>

The following diagram is taken from an IAB video explaining the evolution of the display advertising ecosystem.¹¹ It shows how the main intermediaries involved in delivering advertising to websites interact:



Given the complexities of the landscape today, the main focus of the research has been to identify the advertising intermediaries that are believed to be responsible for the actual delivery of adverts to the website.¹² As previously mentioned, Incopro has sought to identify the advertising intermediaries responsible for delivering the creative to the unauthorised sites. This has been done by manual analysis of the web pages displaying the advertising and also using tools to examine the calls that have been made to the various servers involved in the process.

By examining the intermediaries involved in the actual delivery of adverts to the unauthorised sites insight can be gained as to the importance of this source of revenue to these sites and whether there are any significant trends. Furthermore, opportunities may become apparent for ways in which to reduce the revenue generated by this method.

Top advertising intermediaries

Given the importance of advertising as a revenue source for the top 250 unauthorised sites, the first key point to identify is which advertising intermediaries are responsible for delivering adverts to the unauthorised websites. The term ‘advertising intermediaries’ has been chosen to reflect the fact that both Ad Networks and Ad Exchanges have been observed delivering adverts to the page.

Incopro visited five pages per site per country in order to collect data for this study. This produced a total of 3,544 adverts observed across all sites and countries (“complete dataset”) delivered by 279 unique intermediaries. In order to determine a single instance of

¹¹ <http://www.iabuk.net/video/the-evolution-of-online-display-advertising>

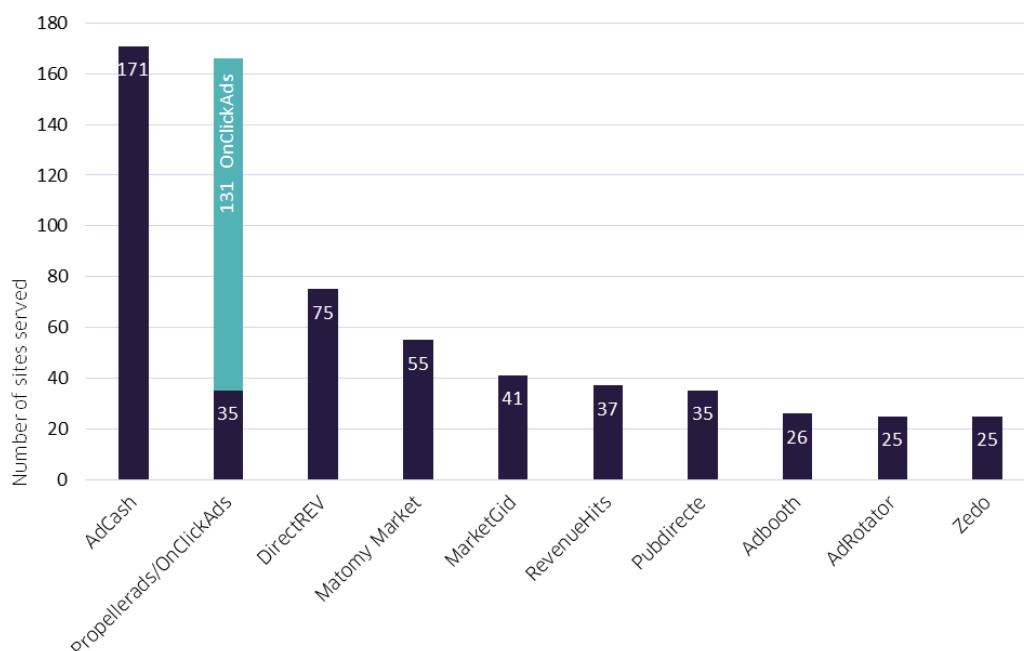
¹² The IAB has published its Quality Assurance Guidelines (see Appendix C), which may be useful in terms of ensuring best practices of intermediaries.

an advertising intermediary delivering an advert to the page, the data has been processed in two ways. Firstly, for the overall analysis of the five countries together, one instance of each intermediary per site has been retained (“unique intermediaries dataset”) regardless of country. For example, if an intermediary served five adverts to a site, this counted as one appearance of the intermediary, not five. It would, however, count as five adverts for the purposes of calculating the overall volume of adverts served per intermediary. The “unique intermediaries dataset” reflects how many sites an intermediary appeared on, while the complete dataset also reflects how many ads the intermediaries serve. Secondly, for the country analysis, one instance of each intermediary per site and per country has been retained (“unique intermediaries by country dataset”). In this context, that means that the same intermediary could be detected as serving adverts to the same site but in a different country. Incopro believes this to be in line with the counting methodology used by other studies in this area.

The following chart shows the top 10 advertising intermediaries for all countries combined using the unique intermediaries’ dataset:

Top 10 advertising networks

All European countries combined



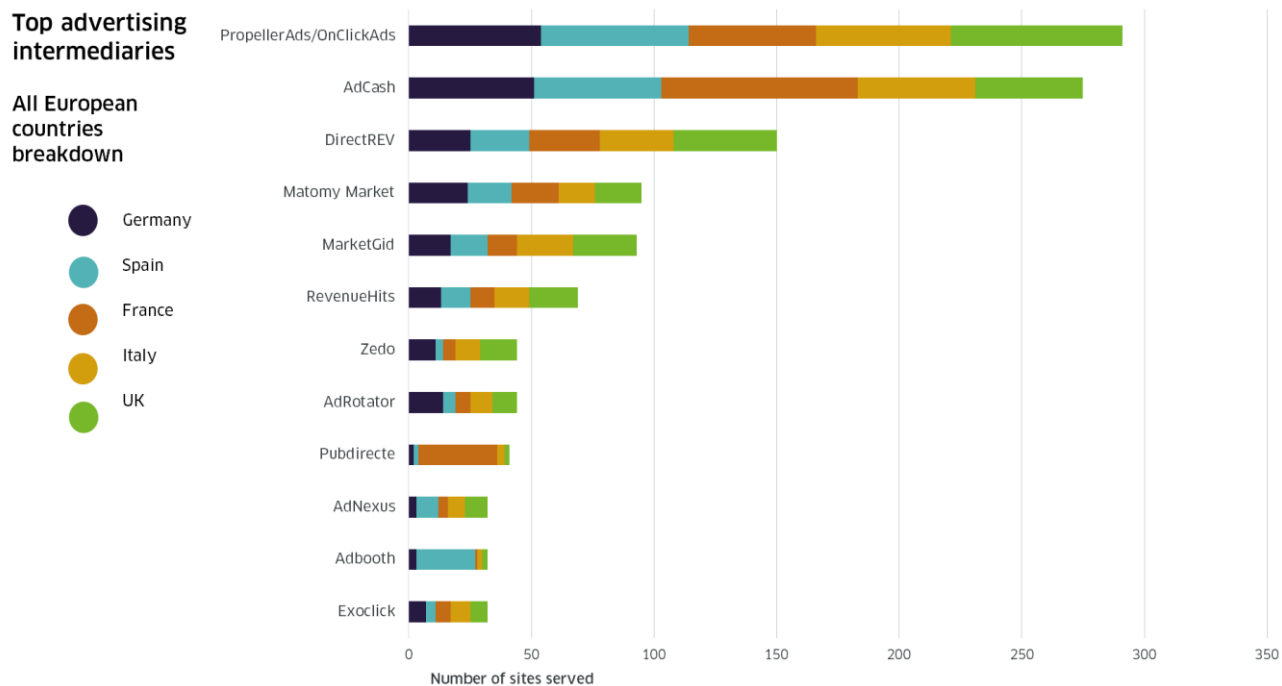
Analysis found that AdCash, Propellerads/OnClickAds (Propellerads is a media company which provides both publishing and advertising, and uses the domain onclickads.net solely to serve adverts promoting products from third parties) and DirectREV were the top three intermediaries to serve adverts across all unique sites in this study.

As acknowledged previously, the advertising ecosystem has become increasingly complex over the years and a deeper understanding of it may present additional opportunities for disrupting the revenue stream of the unauthorised sites in this study. The data collection for this report concentrated on the intermediaries delivering adverts to the website, but there is opportunity to explore working with other ecosystem players to disrupt the flow of ad revenue to the unauthorised sites in this study. One possible approach to this would be to engage with the Content Delivery Networks (CDNs)¹³ which do not serve the adverts independently but cache the creative

¹³ Please see the section “advertising on the top 250 unauthorised sites” for further context about this area of the advertising ecosystem.

elements that are called by ad tags served by other intermediaries. Consideration should be given to approaching the leading CDNs and working with them to block adverts served to unauthorised sites.

The following chart uses the unique intermediaries by country dataset and shows the top ten advertising intermediaries observed across all five countries in the study, broken down by country (12 intermediaries are displayed because there are 3 with a total of 32 in tenth position):



The top three intermediaries in this dataset were PropellerAds/OnClickAds, AdCash and DirectREV.

When looking at each country individually, all countries except France show the same three intermediaries as above in the top three. France has AdCash, then PropellerAds/OnClickAds in the top 2 but with Pubdirecte in third place.

A higher proportion of AdCash adverts are delivered in France than in other countries. Research into this reveals that the company has targeted the French market as a result of the two co-founders being French and knowing that market very well. They recognised that many multinational corporations were looking to claim their share of the French online advertising market.¹⁴ According to the company CEO, the reason for its success was behind the decision to *“Bring in friends and foreign advertisers that were looking for French traffic. We started in France and 20-30 percent of the turnover is in France.”*

Based on analysis of the complete dataset, the overall European picture is broadly the same, with the same top three intermediaries. These three intermediaries accounted for 34% of adverts by volume, with the top 10 advertising intermediaries delivering 61% of the total adverts served. This is very similar to the picture stated above and indicates that there is no single advertising intermediary responsible for delivering a greater proportion as against other networks.

¹⁴ <http://www.arcticstartup.com/2013/09/26/the-estonian-startup-with-e25-million-turnover-you-havent-heard-of>

When looking at the complete dataset broken down by country, it is clear that the same two intermediaries serve the greatest volume of adverts across all five countries - PropellerAds/OnClickAds and AdCash. However, two different intermediaries to those seen previously emerge in the top 10 in Italy, Germany and the UK - Exoclick and Zedo. In France, Pubdirecte and Affiliation France appear in the top 10 by volume.

The sites in scope for this study were categorised in terms of their type: Hosting, Linking only and Public P2P portals. These categories have been used as sites in these groups have different business models and make content available in different ways. It is therefore helpful to see if there are particular intermediaries that should be prioritised when analysed in relation to site type. The data set used here was the “unique intermediaries dataset”.

For Hosting sites, the top three intermediaries are: PropellerAds/OnClickAds, AdCash and Matomy Market. These three intermediaries accounted for 33% of all unique intermediaries serving adverts to sites classified as Hosting sites.

Linking Only sites were served by the following top three intermediaries: AdCash, PropellerAds/OnClickAds and Matomy Market. These three intermediaries accounted for 27% of all unique intermediaries serving adverts to sites classified as Linking Only sites.

Lastly, for Public P2P Portals, the top three intermediaries by total volume of adverts were DirectREV, AdCash and PropellerAds/OnClickAds and accounted for 25% of the total on public P2P portals within this study.

As might be expected from the previous analysis, AdCash and PropellerAds/OnClickAds are the most frequently occurring intermediaries on both Hosting and Linking Only sites.

Advertising categories

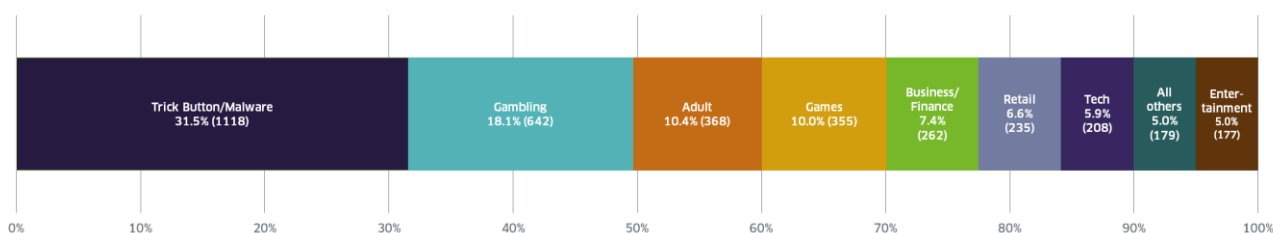
The analysis in the previous section demonstrates that particular advertising intermediaries dominate the landscape and should form the focus of a strategy to frustrate the revenue generating abilities of the top 250 unauthorised websites. It is therefore helpful to turn to the reputable industries advertising on these sites to see whether the brands and companies advertising there, where they have knowledge, could be engaged with to ensure that their advertising is not served on these infringing websites.

Breakdown by vertical

The adverts observed in this analysis have been categorised according to industry standard verticals, as used by comScore. Due to the high volume of deceptive adverts observed during this process, an additional category called ‘Trick button/Malware’ was added in order to capture this element of activity separately. This category captures adverts that may entice the user to download Potentially Unwanted Programs (PUPs) or click through to adverts where payment is requested, which may result in financial loss.

The following chart uses the complete dataset and shows the verticals for all adverts detected across the five countries, and highlights the fact that the Trick button/PUP category is significantly higher than all other categories. It is then followed by the gambling, adult and games verticals.

ComScore advertiser category breakdown | All observed ads (3,544)



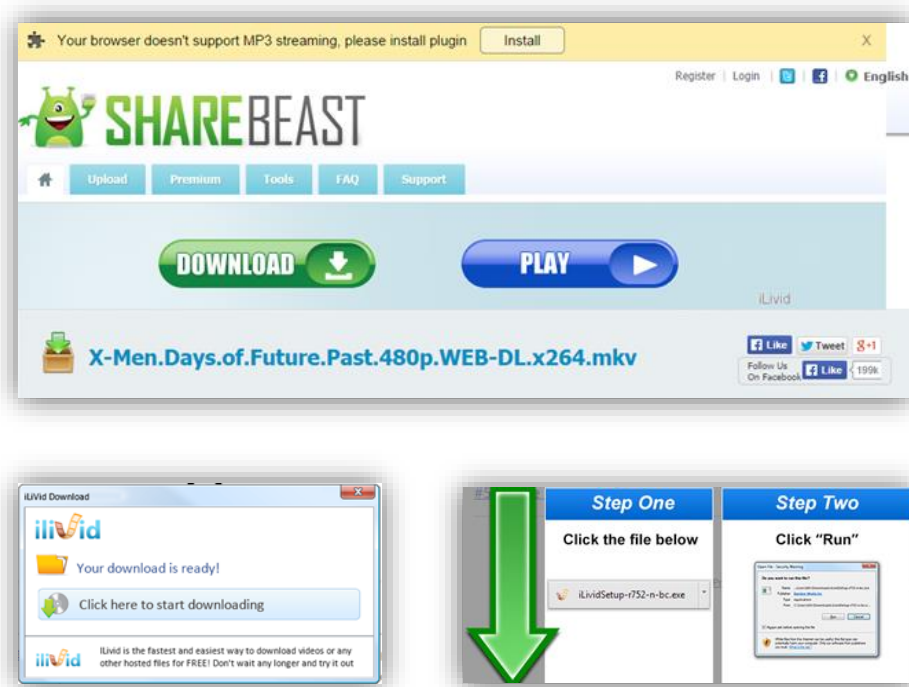
Just under one-third of the total number of adverts viewed in this study were in the Trick Button/Malware category, followed by Gambling and Adult content ads, all of which are high risk categories in terms of the potential impact on visitors to the websites, particularly those users who are most vulnerable, such as minors. With Trick Button/Malware ads a click could potentially infect the user’s computer with malware and bots, which could turn their computers into part of botnets that perpetrate fraud and potentially compromise user data. These Trick Buttons are a common feature of unauthorised sites and are worth looking at in more detail given the potentially damaging financial and emotional effect on the user. Gambling and Adult sites are also of concern because of the possibility that younger users will be exposed to these sites (without appropriate age restrictions and controls).

The Trick Button/Malware types of advert typically do not mention the advertiser in the initial ad, and thus they are a form of ‘bait-and-switch.’¹⁵ Deceptive banners commonly attract a higher-than-average click-through rate, but it has been suggested that users may resent the advertiser for deceiving them¹⁶. Although experienced users may know which link to click to access the content, they too will have to navigate round these deceptive buttons and may still inadvertently click on one of these adverts. Typically, the user is presented with a button that says ‘download’ and/or ‘play’. Believing that these will lead to the desired file, the user then clicks the button. Once clicked, the user is prompted to download an executable file containing a potentially unwanted program.

¹⁵ <http://en.wikipedia.org/wiki/Bait-and-switch>

¹⁶ http://www.marketingterms.com/dictionary/trick_banner

The below screenshot shows an example of a deceptive play and download button on *sharebeast.com* and the resulting download initiation, as well as a misleading browser update installation banner (malware).



Other types of deceptive adverts observed on the sites in this study include bogus software update and installation notifications, warnings that the user's computer is infected with malware and fake chat windows.

The high instance of this form of advertising suggests that advertising intermediaries are not preventing these types of deceptive adverts from being placed by advertisers. Inspection and testing of every tag served would have to be carried out in order to determine the nature of the creative, and while possible might still not catch every instance. Within the top ten identified advertising intermediaries, RevenueHits delivered at least 89% of Trick Button/PUP adverts by volume to the sites they served and Matomy Market served adverts of this nature in 78% of the adverts it served by volume. In contrast, all other advertising intermediaries identified earlier in this report served less than a third of their adverts by volume in this vertical, the lowest being MarketGid with 0%.

Turning to the number of gambling adverts served, two advertising intermediaries stand out in the top 10 list, DirectREV and PropellerAds/OnClickAds, with 62% and 32% of adverts served by volume falling into this vertical. For the adult vertical, AdCash served 24.5% of its adverts by volume in this vertical.

Looking at the breakdown by site type we can see that the majority of categories are fairly uniform across all three site types. Public P2P portals serve a greater proportion of adult, entertainment (media) and sports adverts. Hosting sites serve slightly more gambling and trick button/PUP adverts.

Given the likelihood that end users will encounter potentially harmful software from these types of adverts across all types of site, awareness and outreach campaigns around this issue could be reinforced to help to discourage use of unauthorised sites.¹⁷

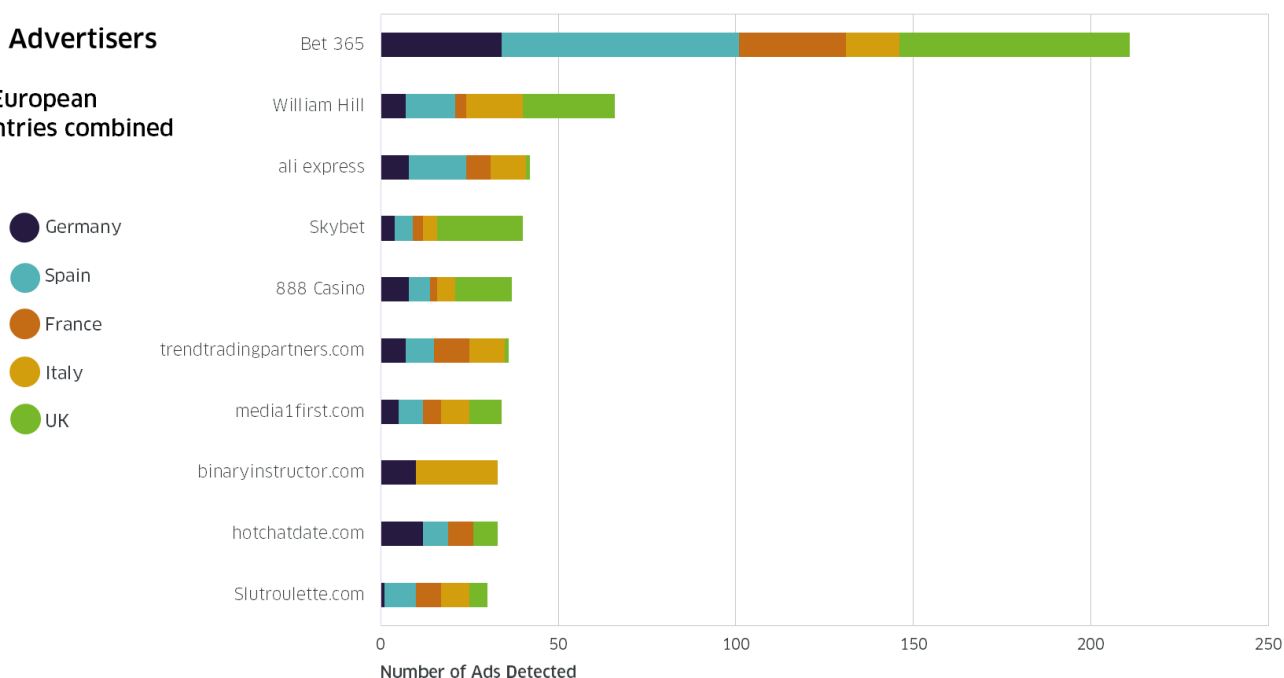
Advertisers

The following section uses the complete dataset and focuses on the most frequently detected advertisers across all the sites studied. The companies that appear on unauthorised sites may add an air of legitimacy to them, where they are brands commonly known to the public. These companies may not be aware that their adverts are appearing on these sites and should be considered for an approach in order to once again frustrate the ability of an unauthorised site to generate ad revenue. For this reason, Trick button/PUP adverts have been excluded from this section in order to concentrate on companies that are potentially approachable.

The following chart is an aggregate of the top ten advertisers detected across all countries broken down by country:

Top Advertisers

All European countries combined



The top three advertisers for the top 250 unauthorised sites from all European Union countries within this study are: Bet 365 (a gambling site), William Hill (a gambling site) and Aliexpress (a retail site). There are slight variations from country to country.

The top three advertisers in the United Kingdom were: Bet 365 (a gambling site), William Hill (a gambling site) and Skybet (a gambling site). The rest of the top 10 was similarly composed of gambling providers.

For Italy, the top three advertisers were: binaryinstructor.com (binary options betting training), William Hill and Bet365. The remainder of the top 10 in that country is made up of a varied selection of verticals.

¹⁷ See for example, the Industry Trust campaign in April 2014: <http://www.industrytrust.co.uk/press-releases/the-bogus-features-lurking-behind-pirate-film-and-tv-sites/>

The top three advertisers in France were: Bet 365 (gambling site), mes-meilleurs-films.fr (French pay monthly film streaming subscription) and pubdirecte.com (French Ad Network/affiliate marketing site). Again, the remainder of the top 10 is spread across a number of verticals as with Italy. The appearance of Pubdirecte may be a result of a proxy issue when visiting French sites as the site may not have recognised the proxy as located in France.¹⁸ It is therefore possible that the network does not have an appropriate creative to serve on the site and therefore displays a self-promotional advert.

For Spain, the top three advertisers were: Bet 365, Aliexpress and William Hill. The remainder of the top 10 is made up of more gambling, adult and games sites.

Finally, the top three advertisers in Germany were: Bet 365 (a gambling site), sunmaker.com (a German gambling site) and tipico.com (a gambling site). Nine of the top ten advertisers are concentrated in the gambling, adult and games verticals.

As previously mentioned, the gambling and adult verticals account for a large proportion of the top advertisers to appear on these sites. This concentration is particularly evident in the UK, Germany and Spain. Large gambling companies such as Bet 365, William Hill and Skybet commonly appear across all countries studied. This may be at odds with gambling regulation in those territories and therefore lead to questions as to why these companies are spending money on advertising in markets where users are not authorised to access them. Adult/dating advertisers are also commonly found to be serving adverts on the top 250 unauthorised sites in this study but this does vary depending on the country the site is viewed from.

The Advertising Age report¹⁹, of the top 100 global marketers was used to identify large brand advertisers to appear on the top 250 sites analysed in this study and identified 41 adverts as being from global marketers. Whilst this is a very small proportion (1.2%), their presence on an unauthorised site may have a disproportionate impact on users, as they may be more likely to perceive the site as having increased legitimacy. It may also have a big impact on the brand itself, as association with an unauthorised website may cause damage to its reputation.

Of the 41 branded adverts belonging to the top 100 global marketers, 16 were from the retail industry, 13 were from the automotive industry, eight were technology companies and four were telecommunications companies. The greatest number of branded adverts belonging to the top 100 global marketers were for Apple, Ford, Samsung, eBay and Google. Each of these brands were identified four times across all sites and countries in this study.

The largest number of the global marketers branded adverts originated from the Ad Exchange DoubleClick, followed by the Ad Networks MediaMath, Zedo, AdNexus and Exoclick.

The appearance of adverts containing recognisable and trusted brands could be perceived as adding an air of legitimacy to an unauthorised website, as mentioned above. It is important, therefore to make the individual advertiser aware that their brand is being served to an unauthorised site as this may in turn damage their own reputation via association. In addition, they may inadvertently be providing a source of revenue to those sites. Disrupting this revenue stream through collaboration with the advertising networks may be an effective enforcement strategy, as this could make it less profitable to operate a site in the ecosystem that is the subject of this study.

¹⁸ See above in the "Methodology - Advertising intermediaries" section.

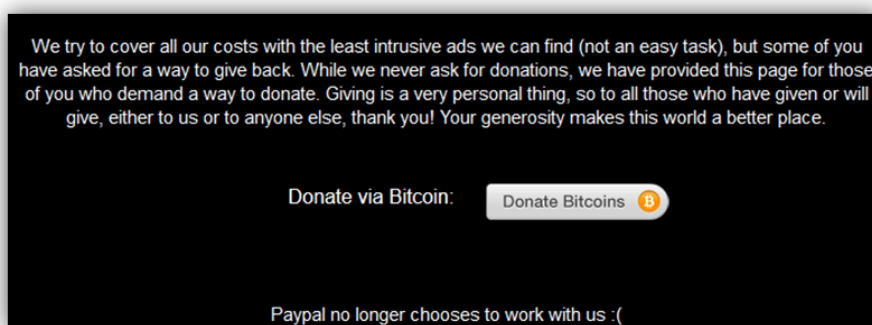
¹⁹ Advertising Age, Datacenter: 100 Largest Global Marketers

Payment methods on the top 250 unauthorised sites

The first part of this report focused on revenue generated by advertising. This next section looks at the payment methods available on the sites in this study. Payment methods are shown on unauthorised websites for the purposes of offering services or accepting donations. Well known methods such as Visa, MasterCard and PayPal now sit alongside various third parties that have emerged as the complexity of the payment landscape has increased. For example, payment processors and exchanges such as BitPay and Paysera have emerged to facilitate payments using virtual currencies such as Bitcoins or mobile payments via SMS.

Where these third parties are involved, they could also be used as a way to frustrate the tracing of payments to the site operators but there are also legitimate reasons to use them. For example, Bitcoin is a crypto-currency that can be accepted for a wide range of goods and services, as well as donations on some of the unauthorised sites in this study.²⁰ However, the user or site operator may need to use a third party service to facilitate payment via Bitcoin, such as a method of exchanging normal currency for Bitcoins.

Where necessary, enforcement activity can disrupt the acceptance of certain payment methods by unauthorised sites. The image below shows the *icefilms.com* donation button; note the text beneath which states that PayPal is no longer available as a payment method for that site.



Given the possibility of working with the providers of the various payment methods, it is important to understand whether a site operator is purporting to accept certain payment methods in order to create an air of legitimacy, in a similar way to using advertising to the same end, or whether these methods are actually accepted when the user clicks through.

All sites were examined to identify which payment methods are purportedly accepted in the sense of the payment method claimed to be used by the website. To determine whether there is a difference between the payment methods a site claims to accept, and the actual payment provider who processes the transaction, further research was undertaken. Purchases or donations were carried out on a sample of sites to discover where a user is ultimately directed, and which provider has brokered the transaction.

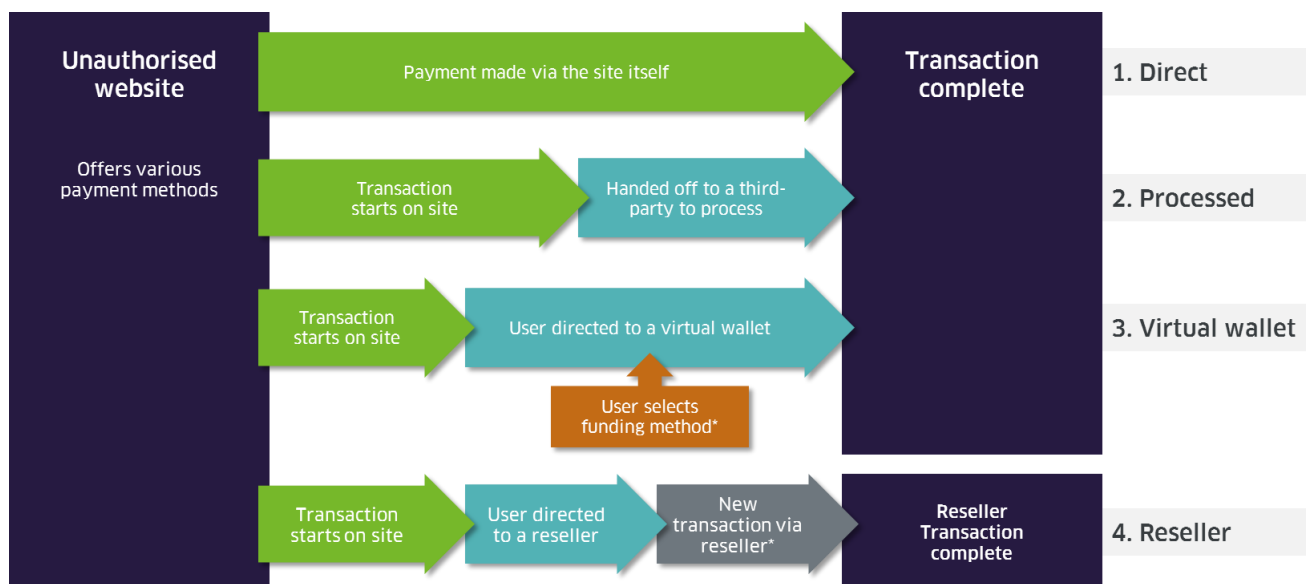
The research revealed a total of 83 different payment methods across 142 unique sites, meaning almost one in four sites (23%) in this study offered some form of payment method. Host sites were the primary location for payment methods and accounted for 91% of all payment methods detected. Payment to the host site was predominantly via a 'premium' subscription service whereas other site types were more likely to accept payment for donations. This is consistent with the prevalent business model in this space, which is more reliant on free content.

²⁰ "Bitcoin fans celebrate after U.S. Senate hearing; bankers stay wary", Thomson Reuters - <http://blog.thomsonreuters.com/index.php/bitcoin-fans-celebrate-u-s-senate-hearing-bankers-stay-wary/>

The payment methods available on the websites did not change according to the country from which the site was accessed. With unauthorised sites catering to international audiences it is not surprising that a multitude of payment methods are available across different countries.

To explore if the purported payment methods were actually accepted by the sites, a statistically robust sample of 30 sites that purported to take these payment methods was selected. This is accepted as a valid sample for a population of this size²¹ (142 sites) and made the analysis proportionate in terms of cost and time. The random nature of the selection across all site types meant that the sample contained 28 Hosting sites, 2 Linking Only sites and no Public P2P Portals. A total of 108 test purchases were then carried out from those 30 sites, across all available payment methods.

When the transactions were followed through to completion, this revealed four types of transaction, as illustrated in the following diagram:

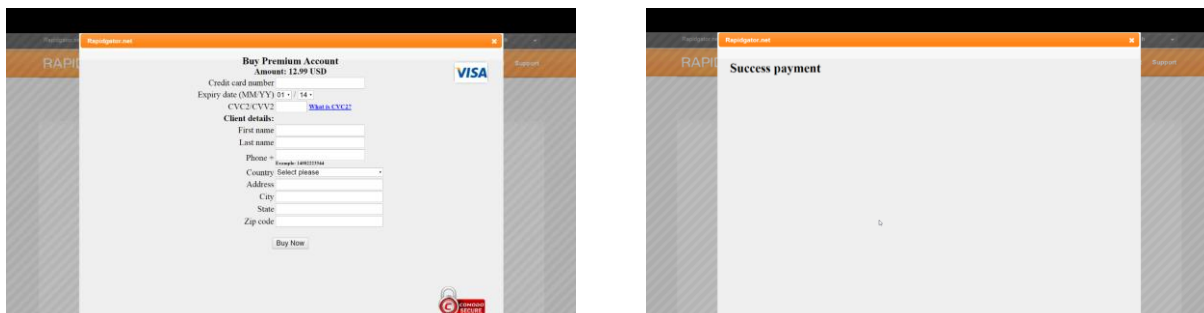


* User can select a method of payment which may differ from the one originally offered on the unauthorised site

²¹ Please see "Mathematical Statistics and Data Analysis", John A. Rice (3rd Ed., 2007), Chapter 7, page 218

The first type was direct processing on the site, with one third of sites in the sample processing payments directly via programmatic requests. To help illustrate the user's journey when they click on this form of payment, the following example may be useful.

Example 1: Visa payment direct on Rapidgator



The screenshots in this example show that the user carries out the complete transaction within Rapidgator's website. The user fills in card information and other details into the webform on the site and then submits the form. The site then sends this information to Visa and receives a confirmation back that payment succeeded. This is then displayed to the user with the success message as above. This form of transaction would ordinarily require a merchant account and a relationship with the payment method.

In this instance, the identified payment processor could be contacted and details of the site provided. Alternatively, these payment processors could be encouraged to be more proactive in their approach. Visa and MasterCard, the most observed payment service providers in this study, have responded to notifications in the past. In the same way that the major global Brands would most likely not wish to be associated with infringing websites because it could affect their reputation, these companies may feel the same.

The second type of transaction was via a third party payment processor or gateway, such as Liqpay (the most observed in the study), which were used by just over one third of sites in the study (12 sites). These processors handle the transaction on behalf of the site.

Example 2: Credit card payment processed via Dalpay

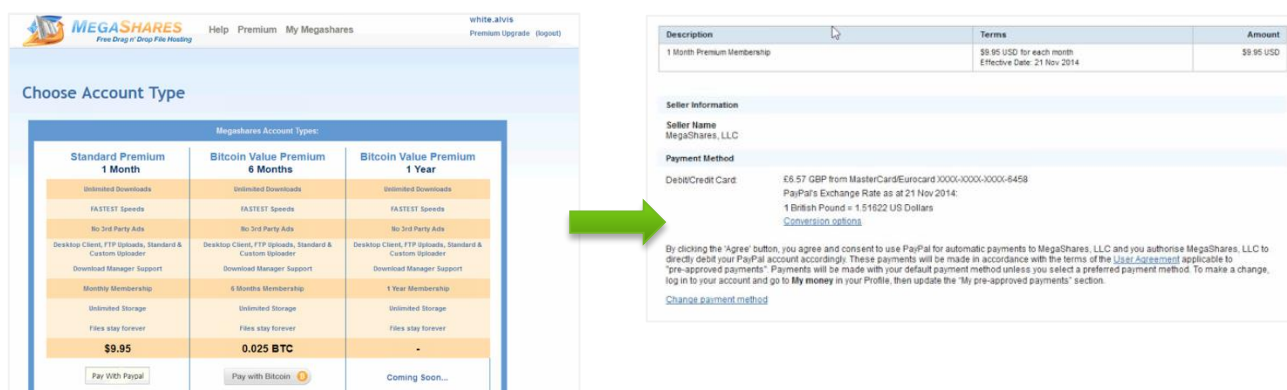
The screenshots show the user's journey from selecting a payment method to encountering a transaction error. The first screenshot shows the 'Plan (1 Month)' page with a 'Please choose your payment method' section. The second screenshot shows the 'Proceed' page with the text 'You are redirected to "Dalpay.is" who securely handles this transaction for your Premium Membership'. The third screenshot shows an error message from Dalpay: 'There is a problem. Below you'll find a list of possible problems. Please use the browser back button and correct the problem as listed below. Merchant: File Share Holding LTD. Error Message: Sorry, we cannot accept new orders for this merchant account at the moment. Please contact the merchant at pay@secureupload.eu. Fraud Protection and Good Customer Practice. Disclaimer: This following statement does not indicate that a payment type is not valid or can not be charged due to lack of credit. Our payment gateway accepts payments in good faith at the time of purchase, over the Internet. We are required to keep records of any information that may avoid a potential loss of funds. All payments that are submitted on our associated websites will be subject to an approval/screening process that is designed to identify any prior mis-use, or abuse on the part of a purchasing customer that has done business with us before. We reserve the right to decline any payment that has been subject to any prior inquiry (retrieval request), refund (chargeback), or any other claim representing an outstanding loss to DalPay and it's associated partners. Powered by DALPAY'.

The screenshots show that when the Visa payment method is selected the user is told that they will be redirected to Dalpay. This is the processor for the transaction. In this example, on the site secureupload.eu, the merchant account via this particular processor has been suspended and the transaction was prevented.

This shows that there are also steps that can be taken to prevent payment processing. In the same way that the payment card providers can be asked to take action, payment processors can also be asked to take similar action to prevent transactions on those merchant accounts where they are facilitating the revenue generation of unauthorised sites.

The third type of transaction observed was carried out via virtual wallets, including services such as Google Wallet, RoboKassa and PayPal (the top three most observed). Like the other two transaction types, there were around a third of sites (12 in total) that used this form of direct payment method. These services allow users to add funds to a virtual wallet, which stores the value. The user can then make a payment to someone else’s wallet, transferring the funds from one to the other via the service.

Example 3: Payment via PayPal leading to a choice of payment methods



The user initiates the transaction on the site and, once logged into PayPal, is able to select from their choice of available payment sources (e.g. bank account, credit card). This means that an individual can choose a method not previously offered by the unauthorised site to complete their transaction.

Again, this type of payment can be disrupted, as in the example given at the beginning of this section. These sorts of wallets are harder to detect potentially as a site operator could register as an individual, rather than a business, to receive payments.

The two Linking Only sites in the sample asked for donations via PayPal, with one offering premium membership (i.e. no advertising) in return. However, the transactions were not simply via PayPal; one site went via a crowd-sourcing funding platform called PitchIn first and the other via a fake charity website. The use of this kind of intermediate step may indicate that these donations are being deliberately disguised, to hide the true recipient of the money from PayPal itself. Notably, the charity domain also uses a privacy protection service to hide the domain registrant details, indicating that they prefer to remain anonymous. This sort of use of a virtual wallet would be harder for the virtual wallet provider to detect. If disruption of this kind of disguised revenue stream is desired, sites would need to be investigated and the intermediate accounts disrupted on a site-by-site basis.

The final type of transaction observed was via a site that offered to sell access to premium accounts on a range of file hosting services. These are termed “resellers” with the most observed being VIPKeys and VexPlay. This form of transaction was observed in about a third of all transactions, regardless of how they were originally offered on the unauthorised site. This means that a site may offer payment via MasterCard or Visa for example but the user actually gets redirected to the reseller’s website to carry out their transaction.

Example 4: Redirect of Visa transaction on Rodfile through Downloadnolimit to RoboKassa



To illustrate this, the screenshots above show the user visiting rodfile.com and being redirected DownloadNoLimit.com, a seller of premium accounts on file hosting services (the reseller). The user then goes from the reseller to RoboKassa where they complete the transactions using a credit card. In this example, services were bought using both Visa and MasterCard. This is due to the fact that RoboKassa is a virtual wallet, which can be funded by a range of payment methods (like PayPal in the example above).

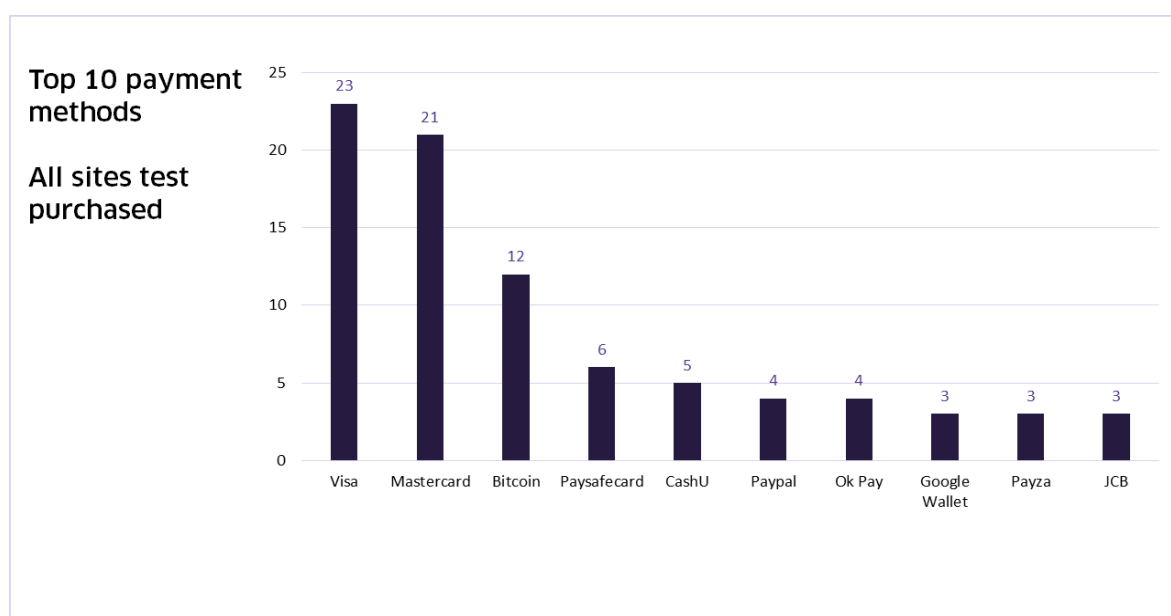
In this scenario, the original unauthorised site refers the payment to the reseller, which effectively re-starts the transaction, with the reseller at the start. The revenue from this will go to the reseller from the user who may then pass a proportion of this back to the original site. Resellers make a business out of selling access to sites that are key to infringement of copyright. The resellers group is therefore different from the previous scenarios described above, as they are not a payment processor themselves. This should be looked at as a separate issue and is outside the scope of this report.

One last observation is the use of the virtual currency Bitcoin. This was observed on 12 sites, most commonly being processed via third party services like Bitpay and OKPay. These can be seen as wallet services, as Bitcoins are deposited in an account so that they can be transferred between people. These methods just make Bitcoin transfer easier but they are not crucial for the transaction. The online currencies aspect is harder to address but may be possible through the wallet services and processors that facilitate the transactions.

It can be concluded that analysis of the 108 individual purchases shows that the routes to payment vary, but that ultimately the payment provider is as advertised initially in the majority of purchases (71 out of 108). In the 37 purchases where the end payment provider is not the same as that advertised, 27 are processed via resellers, who are not actually payment processors themselves, so in effect, the payment process begins again once the payment has been referred to these resellers. Of the 27 payments processed through a reseller, 18 resulted in payment being able to be completed by the method originally advertised, whilst in three cases it was possible to pay by the original method, but also possible to complete payment by other means. Only six of the purchases made were via a different payment method to that originally selected. In all cases this was because the payment had been passed to a reseller or virtual wallet where the original payment method stated was not ultimately accepted.

When looking at the 30 websites from which the 108 test purchases were made, payments were made successfully by the originally requested method (i.e. requesting to pay by Visa payment card for example, and ultimately completing payment with that Visa card) for 27 of these websites. However, there are multiple methods of completing these purchases, as described above, which add complexity to the effort of blocking the flow of revenue. Only one third of the test purchases were completed directly through the requested payment method and the rest were completed by one of 3 different methods above; processed via a third party, by a virtual wallet, or by a reseller. The 3 websites where payments differed from the original method was due to the involvement of resellers and virtual wallets not accepting the original purported method of payment.

The main payment providers, who account for the majority of payments offered on the sites in this study, are Visa and MasterCard, as illustrated in the following bar chart:



In conclusion, sites are not generally misleading about which methods they use for payment, and they take the payment methods they originally offered via one of the four routes as set out above. This is true for all of the sites tested. Therefore in relation to the top payment methods identified, co-operation should continue. Where virtual currencies are used, these will often be used via a payment processor or virtual wallet; companies such as Google Wallet, RoboKassa, Bitpay and OKPay should also be considered for engagement.

Conclusions/Closing remarks

Analysis of the two revenue streams, advertising and payment methods, has shown that the generation of revenue via these methods is part of a highly complex network of businesses, all interacting with one another in a variety of different ways. Advertising is clearly the biggest source of revenue for the sites identified in this study. Given this reliance on advertising, concerted effort should be made by brands, agencies, and where possible, the authorities, to work together to persuade the various intermediaries to undermine these revenue streams.

Regarding payment methods, analysis has shown that the payment methods observed broadly consist of four transaction types on the unauthorised websites studied. These are the payment service providers like Visa and MasterCard, payment processors such as Liqpay and Dalpay, virtual wallets such as Google Wallet, RoboKassa and PayPal and resellers such as VIPKeys. Engagement with the first three is recommended. Resellers should be examined as a separate issue.

Appendix A: Full methodology

The following section describes the methods used by Incopro for the collection and analysis of the data used in this report.

Site selection

- For this report, Incopro has created a list of sites that make up the top 250 film and TV focussed sites that are making available film and television content without the licence or consent of the companies that are responsible for the production and distribution of such films and television programmes.
- The sites chosen for the study comprised the top 250 unauthorised sites for the five largest European Union Member States: Germany, Spain, France, Italy and United Kingdom (“UK”) as determined by their popularity. This measure is based on Incopro's Alexa estimated usage metric, which is Incopro's translation of Alexa data into a metric suitable for showing trends in the usage of sites over time (see below for the detailed description of the Alexa methodology). This has been calculated for this set of sites using data for the month of August 2014 for the five EU Member States.
- The top 250 sites from each country overlap due to their widespread popularity; therefore the total number of unique websites used in this study was 622 (see the Data Collection section below for a detailed description of how the 622 websites were obtained).

Site popularity (Alexa methodology)

Incopro chose Alexa as its first provider of traffic metrics and is working to integrate other data sources in the future. Many people have misconceptions regarding the data provided by Alexa, possibly due to several changes in methodology throughout their history and being slightly opaque about the detail of their data collection.

Prior to 2008, Alexa traffic estimates were based solely on their browser toolbar, which users had to manually install on their computer. In 2008 Alexa announced that they were no longer relying solely on the toolbar data, and instead pulled in data from a variety of sources, including buying data from ISPs. Alexa's methodology has changed again over the past few years, which appears to coincide with Alexa launching their direct site measurement program (Alexa Certified Metrics). Alexa has removed all text from their information pages regarding buying data from ISPs/collecting from a variety of sources, and now state the following (paraphrased):

- Traffic estimates are based on data from their global traffic panel, a sample of all internet users. The panel consists of millions of users using toolbars created by over 25,000 different publishers, including Alexa and Amazon.
- Some sites are directly measured by Alexa – site operators can sign up to Alexa's certified metrics program.
- Traffic Rank is a measurement of traffic to a website, relative to all other sites on the web over the past 3 months (a rolling 3 month period updated daily) and calculated using a combination of the estimated average daily unique visitors to the site and estimated number of page views over the past 3 months.
- Alexa corrects for biases in the demographic distribution of site visitors, they correct for potential biases in data collected from the various browser extensions, to better represent the type of visitors who might not be in their measurement panel. That being said, biases still exist.

- Due to the concentration of visitors being on the most popular sites, it is difficult to accurately determine the rank of sites with fewer than 1000 monthly visitors. Therefore traffic rankings of 100,000 and above should be considered rough estimates. The closer a site gets to number 1, the more accurate its traffic ranking becomes.
- Alexa’s collection methods and traffic data were presented and explained in court last year by Incopro’s Director of Technology, Bret Boivin. This evidence was accepted by the judge and formed an important part of the successful case against the defendant.
- As there are several data providers that offer usage numbers for sites, and each provider applies a different methodology and draws data from different sources, Incopro has chosen to refer to the usage metric as an overall ‘Alexa usage estimate’. This is to avoid inconsistencies with other data sources, and because the focus of this report is concerned with the impact of enforcement as opposed to the number of users for particular sites.
- To determine this usage metric, we translate the Alexa reach, which is expressed as number of users per million, for each site and user percentages into estimates of the estimated usage of a website. To do this, the global internet population has been obtained from the latest ITU Facts and Figures (published February 2013). Alexa reach data is tracked automatically by our system, along with a number of other key metrics. For this calculation, the 3 month reach data is used with the ITU figure to produce the usage metric.
- Alexa also makes data available for territories individually where the website has enough traffic data in that country. This is expressed as a percentage of all users visiting the site. This percentage figure is used in conjunction with the above reach calculation to get the Alexa estimated usage metric for the site in a given territory. We take the above calculations on a day-by-day basis and then calculate the median value for the month for each site, for both the global and country calculations. Given the fluctuations in numbers that can occur as a site decreases in popularity, this is the best way to remove any dramatic increases or decreases.
- This Alexa usage estimate is used to show trends in relation to particular sites. Sites relevant to all aspects of the piracy landscape, from legitimate services to proxies used to circumvent ISP blocking measures are dynamically tracked by Incopro. We can also confidently assess the impact on other sites that are in the same type of “piracy market” and that might be expected to benefit from blocking applied to other sites. Our confidence on this stems from the fact that the Incopro system has tracked blocked sites and the key other piracy sites for a substantial period and has also tracked all known proxies for such sites. This tracking has had to be meticulous because the tracking is then used to notify ISPs of site and proxy domains to be blocked. More data sources are being identified and included in Incopro’s Site Intelligence Database (ISID) in the coming months, which will increase the data points available for comparison.

Data collection

Top 250 website Identification

The following process was used to determine the 622 sites used in this study across all 5 countries:

1. Incopro’s ISID database was used to identify the top 250 sites making available film and television content by reference to Incopro’s "Infringement Index". The Incopro Infringement Index scores each website that is tracked in the system. To determine the scoring for each website, Incopro use criteria informed by case law (in Europe and the US) to assess the sites in the database. Scoring involves a combination of automated data analysis and expert manual review. The Incopro system assesses each site in the database on a daily basis. If a site changes significantly, it is re-assessed for the purposes of the

Incopro Infringement Index. This assisted the analysis and reporting for this study because it enabled identification of the top 250 sites accessible in each country. As such, Incopro is able to explain that the 250 sites have been assessed (on an ongoing basis) against criteria established by EU and US case law.

2. This “top 250” list was identified as the system can identify sites that are accessible in a given country even if their servers and operators are based elsewhere. Incopro collates and retains country specific data on the sites within its database and was able to use this data for site selection.
3. Linking Only and Public P2P Portal sites with an Incopro Infringement Index of 7 or more²² were selected for the purposes of establishing this “top 250”. All of these sites will have a substantial focus on making available film and television programmes without the licence or consent of the owner.
4. With regard to host sites, Incopro uses an infringement index of 1-10 (10 being the most infringing). However, the hosts in the database fall within this index from 4 to 6. This is due to the fact that it is not possible to know the proportion of infringing content on a host without thorough research/statistical sampling. Sites that are classified as a '6', for example, will have rewards programmes or a large number of working links, or both. We have excluded host sites that fell below a 5 to ensure that the hosts included in our lists are sufficiently focussed on the hosting of infringing content and are therefore valid for this top 250 list.
5. The total number of websites for the 5 countries (622) were then categorised according to the following categories as sites in these groups have different business models and make content available in different ways, which could assist in the analysis of the data:
 - **Hosting** - cyberlocker hosts and other online file storage providers that physically store content;
 - **Linking Only** - sites that post links to content hosted on cyberlockers but do not host any of their own content on their servers;
 - **Public P2P Portal** – BitTorrent websites supporting peer-to-peer file sharing which do not require the user to register with the website.

²² Please see further below for details of what factors are considered when determining the infringement index, “Factors for selecting sites”.

Advert data collection

Given the complexities of the landscape today, the main focus of the research has been to identify the advertising intermediaries responsible for delivering the creative to the unauthorised sites. This has been done by manual analysis of the web pages displaying the advertising and also using tools to examine the calls that have been made to the various servers involved in the process, as described below:

1. For each country in turn, we examined five different pages on each website (of the country's top 250), representing different types of pages (for example, homepage, category page and content page). Proxy servers were used in each country to ensure that access of the unauthorised sites was clearly perceived by the target websites as access from the country in question.
2. A custom approach was used to discover content on cyberlocker host sites. This involved using search engines to discover valid links for scanning. A search was conducted containing the host URL and a content title e.g. "ShareBeast" and "X-Men". The site was then accessed via this link.
3. Advertisements were identified, recorded and categorised according to an industry standard list of verticals used by comScore.
4. Using a web debugging proxy (called Fiddler) which logs all HTTP(s) traffic between the computer and the Internet we then identified and recorded the intermediaries that served the advert to the site. This was done by using the 'referrer' headers for the advert in question. Where possible, this information was further verified by inspecting the element of the advert and tracing the iFrame back to its intermediary origin.
5. The delivery method of the identified advert was then recorded (ad type) e.g. pop up, banner etc.
6. Sites were then examined to identify whether they used payment processing and a record was kept of all payment methods accepted.
7. The browser history, cookies and cache were cleared after each website visit.

Counting rules

The collection of data across all sites and countries produced a total of 3,544 adverts ("complete dataset") comprising 279 unique intermediaries. In order to determine a single instance of an advertising intermediary delivering an advert to the page, the data has been processed in two ways. Firstly, for the overall analysis of the five countries together, one instance of each intermediary per site has been retained ("unique intermediaries dataset") regardless of country. For example, if an intermediary served five adverts to a site that counted as one appearance of the intermediary, not five. It would, however, count as five adverts for the purposes of calculating the overall volume of adverts served per intermediary. Secondly, for the country analysis, one instance of each intermediary per site and per country has been retained ("unique intermediaries by country dataset"). In this context, that means that the same intermediary could be detected as serving adverts to the same site but in a different country. Incopro believes this to be in line with the counting methodology used by other studies in this area.

Payment methods data collection

- A two-stage approach was used to determine the payment intermediaries facilitating payment to the site.
- The first stage was to look at all sites in scope from each of the five countries and determine the available payment methods, stopping short of making a purchase.
- The second stage took a random sample of 30 sites that purported to take these payment methods and to make purchases from them, in order to determine the actual payment method used in the transaction.
- The 30 sites were categorised according to site type. 28 were Hosting sites, 2 were Linking Only and there were no Public P2P Portal sites.
- A total of 108 test purchases were carried out and in some instances the payment was declined, but the payment method was still able to be verified. The intended payment method and any redirect was recorded.
- Although every effort was made to test each and every payment option, some payment methods were not possible to be tested due to logistical reasons such as the method being unavailable to the UK. Therefore there may be additional payment methods used by the sites in this study that has not been captured in the data for this report. This was a minimal amount and therefore Incopro believes that this has not had a significant effect on the robustness of the data collected. In some cases a payment option was offered by a site but subsequently was not actually available once it was selected. In this instance the number of redirects were noted and payment was not made.

Factors for selecting sites

The factors drawn from case law and which are typically used by courts to determine the status of a site include the following in respect of linking sites and public P2P portals:

- Purpose: The clear (and often stated) purpose of the sites is copyright infringement and facilitation of copyright infringement.
- Structure: The sites are highly structured and the content is referenced, categorised, curated and moderated.
- Control: The operators are believed to exercise control over the content on the website.
- Focus: The sites focus on copyright/commercially available/popular content rather than for example UGC.
- Guidance & Encouragement/Inducement: The sites provide guidance and deploy a variety of means of encouragement to users in accessing and making available content and advertise the availability of content on third party sites.
- Anonymity for Users: The sites may not only be used anonymously.
- Anonymity for the Operators: The sites' operators cloak themselves in anonymity through the use of variety of measures including commercial available online privacy tools. They will also relocate frequently to avoid detection.
- Take Down Policy: The sites either don't operate a takedown policy at all or such policies are mere window-dressing or even a sham.

The factors drawn from case law and which are typically used by courts to determine status include the following in respect of Host sites:

- Revenue: Users are not charged for storage of files, instead revenue is accrued from subscription fees permitting download; per-download charges; and/or advertising.
- Anonymity for Users: The use of the service can be enjoyed in complete anonymity.
- Anonymity for the Operators: Quite often the operators of the site will also be anonymous or based in jurisdictions where enforcement of the rule of law is quite difficult. Such sites tend to move less frequently, but will do so in response to perceived threats of legal action.
- Inducement/Reward Scheme: Rewards for uploaders of large and popular files (with a particular emphasis on file size, i.e. additional rewards for popular files of over 200 megabytes, which are consistent with long-form copyright-protected audio-visual content)).
- Format: Ability to share files in the following formats (all consistent with long-form copyright-protected AV content): .rar, .zip, .avi, .wmv, .mpg, .mnh, .mp4, .divx, .xvid, .flv, .mov and .mpeg.
- Access: Free access for stored files is limited (in an attempt to encourage the purchase of premium membership) by methods such as increased wait times, bandwidth throttling, caps on the number of downloadverts freely accessed and online advertising.
- Maintaining Functioning Links: Provision of 'link checkers' enabling uploaders to see if their links have been disabled by right holders, thereby giving them the opportunity to replace the removed link.
- Enabling Sharing of Links: Provision of 'forum codes' and 'URL codes' to facilitate the incorporation of links on third party indexing and linking sites.

We note that these lists are non-exhaustive and that all factors will not necessarily be present in relation to each site, but they provide a good guide to determining the infringing status of a website, absented detailed legal advice that is specific to a given site and the relevant jurisdiction. This has informed Incopro's infringement index, which was initially used to select the sites for this study.

Appendix B: Site lists

All sites in study

The following table is a summary of all the sites studied in this report listed in alphabetical order (622 in total). A square denotes that the site formed part of the list of top 250 sites for that country. The site category is also included. In addition a count of all the countries included for the site is presented in the far right column.

URL	Category	DE	ES	FR	IT	UK	No. Countries
1337x.to	Public P2P Portal	■	■	■	■	■	5
1fichier.com	Hosting	■	■	■	■	■	5
300mblinks.com	Linking Only	■	.	.	.	.	1
3dl.tv	Linking Only	■	.	.	.	.	1
allmyvideos.net	Hosting	■	■	■	.	■	4
anonfiles.com	Hosting	.	■	.	.	.	1
atomload.at	Linking Only	■	.	.	.	.	1
avaxsearch.net	Linking Only	■	■	■	■	■	5
awesomedl.ru	Linking Only	■	■	.	.	■	3
backin.net	Hosting	.	.	.	■	.	1
bestreams.net	Hosting	■	.	■	■	■	4
bigcinema.tv	Linking Only	.	■	.	.	■	2
billionuploadverts .com	Hosting	■	■	■	■	■	5
bitreactor.to	Public P2P Portal	■	.	.	.	.	1
blog-peliculas.com	Linking Only	.	■	.	.	.	1
btdigg.org	Public P2P Portal	.	■	■	■	.	3
byte.to	Public P2P Portal	■	.	.	■	.	2
casacinema.in	Linking Only	.	.	.	■	.	1
cima4u.tv	Linking Only	.	.	.	■	.	1
cinefox.tv	Linking Only	.	■	.	.	.	1
cinemavf.net	Linking Only	.	.	■	.	.	1
cinemaxx.ru	Linking Only	■	.	.	.	.	1
cinetopia.ws	Linking Only	■	.	.	.	.	1
clicktoview.org	Hosting	■	.	.	■	■	3
cwer.ws	Linking Only	.	.	.	■	.	1
daclips.in	Hosting	■	■	■	■	■	5
damedivx.com	Public P2P Portal	.	■	.	.	.	1
darkville.com.mx	Linking Only	.	■	.	.	.	1
dasolo.info	Linking Only	.	.	.	■	.	1
ddlmkv3d.com	Linking Only	.	.	.	■	.	1
ddl-search.biz	Linking Only	■	.	.	.	.	1
de.ddl.me	Linking Only	■	.	.	.	.	1
deprofile.com	Hosting	.	.	■	.	■	2
descargamela.com	Linking Only	.	■	.	.	.	1
descargar-mega.net	Linking Only	.	■	.	.	.	1
dfiles.eu	Hosting	■	■	■	■	■	5
directorlow.com	Linking Only	.	■	.	.	.	1
dirtywarez.com	Linking Only	■	.	.	.	.	1
divxcentral.com	Linking Only	.	.	.	.	■	1
divxm.net	Linking Only	.	.	■	.	.	1
divxplanet.com	Public P2P Portal	■	.	.	.	■	2
divxtotal.com	Public P2P Portal	.	■	.	.	.	1
dizihdtv.net	Linking Only	■	.	.	.	.	1
dl-stream.com	Linking Only	.	.	■	.	.	1
dnblog.biz	Linking Only	■	.	.	.	.	1
doridro.com	Linking Only	.	.	.	■	.	1

URL	Category	DE	ES	FR	IT	UK	No. Countries
downparadiz.com	Linking Only	.	.	■	.	.	1
downtwarez.com	Linking Only	.	■	.	.	.	1
dpstreamiz.net	Linking Only	.	.	■	.	.	1
easybytez.com	Hosting	.	.	.	■	.	1
estrenosgo.com	Public P2P Portal	.	■	.	.	.	1
eurostreaming.tv	Linking Only	.	.	.	■	.	1
exashare.com	Hosting	.	.	■	■	.	2
exoshare.com	Hosting	.	.	■	.	.	1
expressleech.com	Hosting	■	.	.	.	■	2
extratorrent.cc	Public P2P Portal	.	■	■	■	■	4
extratorrentlive.com	Public P2P Portal	.	■	■	■	.	3
eztv.it	Public P2P Portal	■	■	■	■	■	5
faststream.in	Hosting	■	.	.	■	.	2
fast-torrent.ru	Public P2P Portal	.	.	.	■	.	1
fenopy.se	Public P2P Portal	.	.	■	■	.	2
ffilms.org	Linking Only	.	.	.	■	■	2
filecloud.io	Hosting	■	■	■	■	■	5
filenuke.com	Hosting	■	■	■	■	■	5
fileom.com	Hosting	■	■	■	■	■	5
fileparadox.in	Hosting	.	.	■	.	.	1
filerio.in	Hosting	.	.	■	.	.	1
filesmonster.com	Hosting	■	.	■	.	.	2
filestorm.to	Hosting	.	■	■	■	.	3
filestube.to	Linking Only	■	■	■	■	■	5
file-upload.net	Hosting	■	.	.	■	.	2
filmehd.net	Linking Only	■	■	.	■	.	3
filmesuper.com	Linking Only	.	.	.	■	.	1
filmikz.ch	Linking Only	.	.	.	■	.	1
Filmix.net	Linking Only	■	■	.	■	■	4
filmonde.net	Linking Only	.	.	■	.	.	1
filmpalast.to	Linking Only	■	.	■	.	.	2
films4streamings.com	Linking Only	.	.	■	.	.	1
films-online.su	Linking Only	.	■	.	.	.	1
filmstream.me	Linking Only	.	.	.	■	.	1
film-stream.org	Linking Only	.	.	.	■	.	1
firebit.org	Public P2P Portal	.	.	.	■	.	1
flashx.tv	Hosting	■	■	.	■	■	4
foro.todohdvt.com	Linking Only	.	■	.	.	.	1
fullpelix.com	Linking Only	.	■	.	.	.	1
full-streaming.org	Linking Only	.	.	■	.	.	1
funxd.in	Linking Only	■	.	.	.	.	1
g2g.fm	Linking Only	.	■	.	■	■	3
geektv.ch	Linking Only	.	.	.	■	.	1
giatri.com	Linking Only	■	.	.	.	.	1
gidonlinekino.com	Linking Only	■	.	■	.	.	2
gigasize.com	Hosting	.	■	.	.	.	1
goldesel.to	Linking Only	■	■	.	■	.	3
gorillavid.in	Hosting	■	■	■	■	■	5
greek-movies.com	Linking Only	■	.	.	.	■	2
g-stream.in	Linking Only	■	.	.	.	.	1
h33t.to	Public P2P Portal	.	■	■	■	■	4
hd-area.org	Linking Only	■	.	.	.	.	1
HDcomplet.com	Linking Only	.	.	■	.	.	1
hd-world.org	Linking Only	■	.	.	.	.	1

URL	Category	DE	ES	FR	IT	UK	No. Countries
hostingbulk.com	Hosting	■	•	•	•	•	1
isohunt.to	Public P2P Portal	■	■	■	■	■	5
junocloud.me	Hosting	■	•	■	■	•	3
katushka.net	Public P2P Portal	•	•	•	■	•	1
keep2share.cc	Hosting	■	•	•	■	■	3
kickass.to	Public P2P Portal	■	■	■	■	■	5
kinofilms.tv	Linking Only	■	•	•	■	•	2
kinogo.net	Linking Only	■	■	■	■	■	5
kinoman.tv	Linking Only	•	•	•	•	■	1
kinoprosmotr.net	Linking Only	•	•	•	•	■	1
kinostok.tv	Hosting	•	•	•	■	•	1
kinosvit.tv	Linking Only	•	•	•	■	•	1
kinovideo.tv	Linking Only	•	•	•	■	•	1
kino-v-online.tv	Linking Only	•	•	•	•	■	1
kinox.to	Linking Only	■	■	•	■	■	4
kinozal.tv	Public P2P Portal	■	■	■	■	■	5
leecher.to	Linking Only	■	•	•	•	•	1
linksfu.com	Linking Only	•	•	•	•	■	1
longfiles.com	Hosting	■	■	■	■	•	4
losmovies.com	Linking Only	•	•	•	•	■	1
luckysshare.net	Hosting	■	•	■	■	■	4
mamzouka.com	Linking Only	•	•	■	•	•	1
mayonez.net	Linking Only	■	•	•	•	•	1
mega.co.nz	Hosting	■	■	■	■	■	5
megafilmeshd.net	Linking Only	•	•	•	•	■	1
mega-search.me	Linking Only	•	•	■	■	■	3
mightyupload.com	Hosting	■	•	•	■	■	3
miradetodo.com.ar	Linking Only	•	■	•	•	•	1
miratuserie.tv	Linking Only	■	■	•	•	•	2
moovyshoovy.com	Linking Only	•	•	•	•	■	1
motionempire.me	Linking Only	•	•	•	•	■	1
movie-stream.to	Linking Only	■	•	•	•	•	1
movinstream.com	Hosting	•	•	■	•	•	1
moviz.net	Linking Only	•	•	■	•	•	1
movpod.in	Hosting	■	•	•	■	■	3
mov-world.net	Linking Only	■	•	•	•	•	1
multiplaycines.com	Linking Only	•	■	•	•	•	1
mygully.com	Linking Only	■	•	•	•	•	1
my-hit.org	Linking Only	•	■	■	■	•	3
netu.tv	Hosting	•	■	■	■	•	3
nnm.me	Linking Only	■	•	•	•	•	1
nosvideo.com	Hosting	■	•	•	•	■	2
oko-kino.ru	Linking Only	■	•	•	•	•	1
oneclickwatch.org	Linking Only	•	•	•	■	■	2
onfillm.ru	Linking Only	•	•	•	•	■	1
online.stepashka.com	Public P2P Portal	■	■	•	•	■	3
p30download.com	Linking Only	■	•	■	•	■	3
peb.pl	Linking Only	•	•	•	•	■	1
Peliculas4.tv	Linking Only	•	■	•	•	•	1
peliculasfox.com	Linking Only	•	■	•	•	•	1
pelis24.com	Linking Only	•	■	•	•	•	1
pellicoliamo.tv	Linking Only	•	•	•	■	•	1
phim3s.net	Linking Only	•	•	•	•	■	1
played.to	Hosting	■	■	■	■	■	5

URL	Category	DE	ES	FR	IT	UK	No. Countries
puntostreaming.com	Linking Only	.	.	.	■	.	1
pordescargadirecta.com	Linking Only	■	■	.	.	.	2
primeshare.tv	Hosting	■	.	.	■	.	2
putlocker.is	Linking Only	■	■	■	■	■	5
putlockertvshows.me	Linking Only	.	.	.	.	■	1
pymovie.net	Linking Only	.	■	.	.	.	1
rapid4me.com	Linking Only	.	.	.	■	.	1
rapidgator.net	Hosting	■	■	■	■	■	5
rapidmoviez.com	Linking Only	■	■	.	■	■	4
rarbg.com	Public P2P Portal	■	■	■	■	■	5
rawabett.com	Linking Only	.	.	■	.	.	1
rghost.net	Hosting	■	.	■	■	.	3
rlsbb.fr	Linking Only	.	.	■	.	.	1
rockdizfile.com	Hosting	.	■	.	■	.	2
rodfile.com	Hosting	■	.	.	.	■	2
rusfolder.com	Hosting	.	.	.	.	■	1
rutracker.org	Public P2P Portal	■	■	■	.	.	3
ryushare.com	Hosting	■	■	■	■	■	5
sceper.ws	Public P2P Portal	■	■	■	■	■	5
scnlog.eu	Linking Only	.	.	.	■	.	1
scrapetorrent.com	Public P2P Portal	.	.	.	.	■	1
serialu.net	Linking Only	■	■	.	■	.	3
serienjunkies.org	Linking Only	■	■	.	.	.	2
seriesdanko.com	Linking Only	.	■	.	.	.	1
seriespepito.com	Linking Only	■	■	■	.	■	4
serietvsubita.net	Linking Only	.	.	.	■	.	1
seventorrents.re	Public P2P Portal	.	.	.	.	■	1
sharecash.org	Hosting	.	■	.	■	.	2
shareplace.com	Hosting	■	.	.	.	.	1
sharerepo.com	Hosting	■	.	.	■	■	3
sharesix.com	Hosting	■	■	.	■	■	4
softarchive.net	Linking Only	■	■	.	■	■	4
stream.deutsches-kino.co	Linking Only	■	.	.	.	.	1
streamay.com	Linking Only	.	.	■	.	.	1
streamcomplet.com	Linking Only	.	.	■	.	.	1
streamingdb.co	Linking Only	.	.	.	■	.	1
streamingfilms.fr	Linking Only	.	.	■	.	.	1
streaming-series.org	Linking Only	.	.	■	.	.	1
stream-tv.me	Linking Only	■	.	■	.	■	3
streamzzz.com	Linking Only	.	.	■	■	.	2
tehparadox.com	Linking Only	■	■	■	■	■	5
terafile.co	Hosting	■	■	■	■	■	5
thefile.me	Hosting	■	■	.	■	■	4
thetorrent.org	Public P2P Portal	.	■	■	■	■	4
titanshare.to	Linking Only	■	.	.	.	.	1
todocvcd.com	Public P2P Portal	.	■	.	.	.	1
top-film.net	Linking Only	.	.	■	.	.	1
tormovies.org	Public P2P Portal	.	.	.	.	■	1
torrentbox.sx	Public P2P Portal	.	■	.	.	.	1
torrentbutler.eu	Public P2P Portal	.	■	■	■	■	4
torrentexpress.net	Public P2P Portal	.	.	.	■	.	1
torrent-finder.info	Public P2P Portal	.	.	■	■	.	2
torrent-games.net	Public P2P Portal	.	■	.	.	.	1
torrents.fm	Public P2P Portal	.	■	.	.	■	2

URL	Category	DE	ES	FR	IT	UK	No. Countries
torrents.net	Public P2P Portal	•	■	■	■	■	4
torrentus.si	Public P2P Portal	■	■	■	■	■	5
torrenty.org	Public P2P Portal	•	•	•	•	■	1
Torrentz.cd	Public P2P Portal	•	•	•	■	•	1
torrentz.eu	Public P2P Portal	■	■	■	■	■	5
torrentz.to	Public P2P Portal	•	■	■	■	■	4
turbobit.net	Hosting	■	■	■	■	■	5
tusfiles.net	Hosting	■	■	■	■	■	5
tuxdescargas.com	Linking Only	•	■	•	•	•	1
tvpelis.net	Linking Only	•	■	•	•	•	1
tv-release.net	Linking Only	■	•	•	■	■	3
tv-series.me	Linking Only	■	•	■	•	■	3
twomovies.us	Linking Only	•	■	•	•	•	1
unutulmazfilmler.com	Linking Only	■	•	■	•	•	2
uploadbaz.com	Hosting	■	•	•	•	■	2
uploaded.net	Hosting	■	■	■	■	■	5
uploadhero.co	Hosting	•	•	■	•	•	1
uppit.com	Hosting	■	•	•	■	■	3
upstore.net	Hosting	■	•	■	■	•	3
uptobox.com	Hosting	■	■	■	■	■	5
usdrama.net	Hosting	•	■	•	•	•	1
usefile.com	Hosting	•	•	■	•	•	1
v1vn.com	Linking Only	•	•	■	•	■	2
v3.ergor.org	Linking Only	•	•	■	•	•	1
vertor.eu	Public P2P Portal	•	•	•	■	■	2
vidbull.com	Hosting	■	■	■	•	■	4
video.tt	Hosting	•	•	■	■	■	3
videobam.com	Hosting	■	•	•	•	■	2
videobull.to	Linking Only	•	•	•	•	■	1
videomega.tv	Hosting	■	■	■	■	■	5
videopremium.tv	Hosting	•	•	•	■	•	1
videozal.net	Linking Only	■	•	•	•	•	1
vidspot.net	Hosting	■	■	■	■	■	5
vidstream.in	Hosting	■	•	•	•	•	1
vidto.me	Hosting	■	■	■	■	■	5
vidxdn.com	Hosting	■	■	•	■	■	4
viooz.co	Linking Only	■	•	■	■	■	4
vkool.net	Linking Only	•	•	■	•	•	1
vkstreaming.com	Linking Only	•	•	■	•	•	1
vkstreaming.org	Linking Only	•	•	■	•	•	1
vodlocker.com	Hosting	■	■	■	■	■	5
vodly.to	Linking Only	■	■	■	•	■	4
watch32.com	Linking Only	■	•	•	■	■	3
watchmovies.to	Linking Only	■	•	•	•	■	2
watchonlinefree.tv	Linking Only	■	•	•	•	■	2
watchopolis.net	Linking Only	•	•	•	•	■	1
watchseries.lt	Linking Only	■	■	■	■	■	5
watchseries7.eu	Linking Only	•	•	•	•	■	1
watchserieshd.eu	Linking Only	■	•	■	•	■	3
watchseries-online.ch	Linking Only	■	■	■	■	■	5
watchtvseries.ch	Linking Only	•	•	•	•	■	1
watch-tvseries.net	Linking Only	•	•	•	•	■	1
watchtvseries.to	Linking Only	■	•	■	•	■	3
www.180upload.com	Hosting	■	■	•	■	■	4



URL	Category	DE	ES	FR	IT	UK	No. Countries
www.2baksa.net	Linking Only	■	•	•	■	■	3
www.1channelmovie.com	Linking Only	•	•	•	•	■	1
www.1divx.info	Linking Only	•	•	■	•	•	1
www.1load.bz	Linking Only	■	•	•	•	•	1
www.1st-files.com	Hosting	•	•	■	•	•	1
www.2shared.com	Hosting	■	■	■	■	■	5
www.300mbfilms.co	Linking Only	•	•	•	•	■	1
www.4partage.com	Linking Only	•	•	■	•	•	1
www.4shared.com	Hosting	■	■	■	■	■	5
www.4-shared.eu	Linking Only	■	■	■	■	•	4
www.720pizle.com	Linking Only	■	•	•	•	•	1
www.990.ro	Linking Only	■	■	•	■	■	4
www.9divx.com	Linking Only	•	•	■	•	•	1
www.afdah.com	Linking Only	•	•	•	•	■	1
www.alluc.to	Linking Only	■	■	■	■	■	5
www.allyoulike.com	Linking Only	•	•	•	•	■	1
www.apnadesiforums.com	Linking Only	•	•	•	•	■	1
www.argenteam.net	Public P2P Portal	•	■	•	•	•	1
www.argentinawarez.com	Linking Only	•	■	•	■	•	2
www.asfile.com	Hosting	■	•	■	■	•	3
www.asia-team.net	Linking Only	•	■	•	•	•	1
www.bajui.com	Linking Only	•	■	•	•	•	1
www.bicaps.net	Linking Only	■	•	•	•	•	1
www.bitshare.com	Hosting	■	■	■	■	■	5
www.bittorrent.am	Public P2P Portal	•	■	■	■	•	3
www.boerse.bz	Linking Only	■	■	■	■	■	5
www.bt-chat.com	Public P2P Portal	•	•	•	■	•	1
www.btloft.com	Public P2P Portal	•	•	•	■	•	1
www.bts.to	Public P2P Portal	•	■	•	■	•	2
www.byhero.com	Linking Only	■	•	•	•	•	1
www.canlidiziizleyin.com	Linking Only	■	•	•	•	•	1
www.ch131.so	Linking Only	•	•	■	•	■	2
www.chameleons-download.com	Linking Only	•	•	•	■	■	2
www.channelcut.tv	Linking Only	•	•	•	•	■	1
www.ciberdvd.com	Linking Only	•	■	•	•	•	1
www.cineblog01.eu	Linking Only	•	■	•	■	•	2
www.cineblog01.li	Linking Only	•	•	•	■	•	1
www.cinegratis.net	Linking Only	•	■	•	•	•	1
www.cinemaxx.ro	Linking Only	•	•	•	■	■	2
www.cinemay.com	Linking Only	•	•	■	•	•	1
www.cinetux.org	Linking Only	•	■	•	•	•	1
www.cloudy.ec	Hosting	•	•	•	■	•	1
www.cloudyvideos.com	Hosting	■	•	•	•	■	2
www.cokeandpopcorn.ch	Linking Only	■	•	•	■	■	3
www.compucaliv.com	Linking Only	•	■	•	•	•	1
www.coolgfx.biz	Linking Only	■	■	•	■	•	3
www.couchtuner.eu	Linking Only	■	■	■	■	■	5
www.cpasbien.pe	Public P2P Portal	•	■	■	•	•	2
www.crocko.com	Hosting	■	■	•	■	■	4
www.cucirca.eu	Linking Only	■	■	■	•	■	4
www.cuevana2.tv	Linking Only	■	■	■	•	■	4
www.d-addicts.com	Public P2P Portal	•	•	•	■	■	2
www.darkwarez.pl	Linking Only	•	•	•	•	■	1
www.datafile.com	Hosting	■	•	■	■	■	4

URL	Category	DE	ES	FR	IT	UK	No. Countries
www.divxatope.com	Public P2P Portal	*	■	*	*	*	1
www.ddlfrench.org	Linking Only	*	*	■	*	*	1
www.derinport.in	Linking Only	*	*	■	*	*	1
www.descargasmix.net	Linking Only	*	■	*	*	*	1
www.desitorrents.com	Public P2P Portal	*	*	*	*	■	1
www.directstream.ws	Linking Only	*	*	■	*	*	1
www.divxstage.to	Hosting	■	*	*	■	■	3
www.divxstream.net	Hosting	*	*	*	■	■	2
www.downall.net	Linking Only	*	*	■	*	*	1
www.downloadha.com	Linking Only	■	*	■	*	■	3
www.downturk.biz	Linking Only	■	*	*	■	*	2
www.dpstream.net	Linking Only	■	■	■	■	■	5
www.dpstreamay.com	Linking Only	*	*	■	*	*	1
www.dubbedepisodes.org	Linking Only	*	*	*	*	■	1
www.dvdripfilms.com	Linking Only	*	*	■	*	*	1
www.dvdripvf.net	Linking Only	*	*	■	*	*	1
www.ecostream.tv	Hosting	■	*	*	*	*	1
www.ekino.tv	Linking Only	*	*	*	*	*	1
www.elitefreak.net	Public P2P Portal	*	■	*	*	*	1
www.elitetorrent.net	Public P2P Portal	■	■	*	*	*	2
www.emule-island.ru	Linking Only	*	*	■	*	*	1
www.epidemz.net	Linking Only	■	■	■	■	*	4
www.esdvs.com	Linking Only	*	■	*	*	*	1
www.estrenosdtl.com	Public P2P Portal	*	■	*	*	*	1
www.evrenselfilm.net	Linking Only	*	*	*	■	*	1
www.ex.ua	Hosting	■	*	*	*	*	1
www.exclusivitees.eu	Linking Only	*	*	■	*	*	1
www.exsite.pl	Linking Only	*	*	*	*	■	1
www.extreme-down.net	Linking Only	*	*	■	*	*	1
www.exvagos.com	Linking Only	*	■	*	*	*	1
www.fboom.me	Hosting	■	*	*	■	*	2
www.feature-film.org	Linking Only	■	*	*	*	*	1
www.filebase.ws	Public P2P Portal	*	*	*	■	*	1
www.filecore.co.nz	Hosting	■	■	*	*	■	3
www.filefactory.com	Hosting	■	■	■	■	■	5
www.filehoot.com	Hosting	*	*	*	*	■	1
www.filemonkey.in	Hosting	■	■	*	*	*	2
www.filenuke.net	Hosting	*	*	*	*	■	1
www.filepost.com	Hosting	■	■	■	■	■	5
www.fileserve.com	Hosting	■	■	*	■	■	4
www.fileswap.com	Hosting	*	*	*	■	■	2
www.filmai.in	Linking Only	*	*	*	*	■	1
www.filme-net.com	Linking Only	*	*	*	■	*	1
www.filmeonline2013.biz	Linking Only	*	*	*	■	*	1
www.filmeonline3d.ro	Linking Only	*	*	*	■	*	1
www.filmeonlineoi.org	Linking Only	*	*	*	■	*	1
www.filmfullzle.com	Linking Only	■	*	■	*	■	3
www.film-italia.net	Linking Only	*	*	*	■	*	1
www.filmiz.ws	Linking Only	*	*	■	*	*	1
www.filmizlesene.com.tr	Linking Only	■	*	*	*	*	1
www.film-mkv.tv	Linking Only	*	*	*	■	*	1
www.filmPertutti.eu	Linking Only	*	*	*	■	*	1
www.filmsenzalimiti.co	Linking Only	*	*	*	■	*	1
www.films-sur-megaupload.com	Linking Only	*	*	■	*	*	1



URL	Category	DE	ES	FR	IT	UK	No. Countries
www.free-tv-video-online.me	Linking Only	■	■	■	■	■	5
www.filmstreamingvk.com	Linking Only	.	.	■	.	.	1
www.firedrive.com	Hosting	■	■	■	■	■	5
www.firesharing.net	Public P2P Portal	.	.	.	■	.	1
www.foroxd.com	Linking Only	.	■	.	.	.	1
www.freakshare.com	Hosting	■	■	■	■	■	5
www.free-telechargement.org	Linking Only	.	.	■	.	.	1
www.french-movies.net	Linking Only	.	.	■	.	.	1
www.freshwap.me	Linking Only	■	.	■	■	.	3
www.fs-exclue.com	Linking Only	.	.	■	.	.	1
www.fsplay.net	Linking Only	.	.	.	■	■	2
www.fullidizizleyelim1.net	Linking Only	■	.	.	.	.	1
www.fullids.com	Public P2P Portal	.	.	.	■	■	2
www.fullhdfilmizle.org	Linking Only	■	.	■	.	.	2
www.fullsharez.com	Linking Only	.	.	■	.	.	1
www.full-stream.net	Linking Only	.	■	■	.	.	2
www.full-streaming.com	Linking Only	.	.	■	.	.	1
www.generalfil.es	Linking Only	■	■	.	■	.	3
www.gigaflat.com	Hosting	■	.	.	.	.	1
www.golden-ddl.net	Linking Only	.	.	■	.	.	1
www.gratispeliculas.org	Linking Only	.	■	.	.	.	1
www.harikadizi1.com	Linking Only	■	.	.	.	.	1
www.hdfilmsaati.org	Linking Only	■	.	.	.	.	1
www.hdfilmsitesi.org	Linking Only	■	.	■	.	.	2
www.hdkinoteatr.com	Linking Only	.	.	.	■	.	1
www.hdvnbits.org	Public P2P Portal	.	.	.	.	■	1
www.heroturko.me	Linking Only	■	■	■	■	■	5
www.hispashare.com	Public P2P Portal	.	■	.	.	.	1
www.hotfiles.ro	Hosting	.	■	.	■	.	2
www.icefilms.info	Linking Only	■	.	■	■	■	4
www.identi.li	Linking Only	.	■	.	.	.	1
www.ilcorsaronero.info	Public P2P Portal	.	.	.	■	.	1
www.ilefilms.com	Linking Only	.	.	■	.	.	1
www.intercambiosvirtuales.org	Linking Only	.	■	.	.	.	1
www.internetcine.org	Linking Only	.	■	.	.	.	1
www.ishare.to	Linking Only	■	.	.	.	.	1
www.italia-film.org	Linking Only	.	.	.	■	.	1
www.iwatchonline.to	Linking Only	.	.	.	.	■	1
www.jeddl.me	Linking Only	.	.	■	.	.	1
www.jetfilmizle.com	Linking Only	■	.	.	.	.	1
www.keep2s.cc	Hosting	■	.	■	■	■	4
www.kingfiles.net	Hosting	.	.	.	■	■	2
www.kinostok.net	Linking Only	.	.	.	■	.	1
www.k-streaming.com	Linking Only	.	.	■	.	.	1
www.ladylink.org	Linking Only	.	.	■	.	.	1
www.letitbit.net	Hosting	■	■	■	■	■	5
www.letmewatchthis.ae	Linking Only	.	.	.	.	■	1
www.libertyland.tv	Public P2P Portal	.	.	■	.	.	1
www.liens-series.com	Linking Only	.	■	■	.	.	2
www.lien-torrent.com	Public P2P Portal	.	.	■	.	.	1
www.limetorrents.cc	Public P2P Portal	.	.	.	■	.	1
www.load.to	Hosting	■	.	.	.	.	1
www.lostfilm.tv	Public P2P Portal	.	.	.	.	■	1
www.loveserie.com	Linking Only	.	.	■	.	.	1

URL	Category	DE	ES	FR	IT	UK	No. Countries
www.mesddl.cc	Linking Only	*	*	■	*	*	1
www.mamega.com	Linking Only	*	*	■	*	*	1
www.maniastreaming.com	Linking Only	*	*	■	*	*	1
www.mega-exclue.com	Linking Only	*	*	■	*	*	1
www.megaseries.org	Linking Only	*	*	■	*	*	1
www.megashares.com	Hosting	■	■	*	■	■	4
www.mejorenvo.com	Public P2P Portal	*	■	*	*	*	1
www.mejortorrent.com	Public P2P Portal	*	■	*	*	*	1
www.mes-ddl.com	Linking Only	*	*	■	*	*	1
www.mixturecloud.com	Hosting	*	*	■	*	*	1
www.mksnipr.fr	Linking Only	*	*	■	*	*	1
www.mobi-live.ru	Linking Only	*	*	*	*	■	1
www.mondowarezz.com	Linking Only	*	*	*	■	*	1
www.monova.org	Public P2P Portal	■	■	■	■	■	5
www.movie25.cm	Linking Only	*	*	*	*	■	1
www.movie2k.tl	Linking Only	■	*	*	*	*	1
www.movie4k.to	Linking Only	■	■	■	■	■	5
www.movie8k.to	Linking Only	*	*	*	*	■	1
www.movie-blog.org	Linking Only	■	■	*	*	*	2
www.movierulz.com	Linking Only	*	*	*	*	■	1
www.moviesdvdr.com	Public P2P Portal	*	■	*	*	*	1
www.movreel.com	Hosting	■	*	*	■	■	3
www.movs.ch	Linking Only	■	*	*	*	*	1
www.movshare.net	Hosting	■	■	■	■	■	5
www.movzap.com	Hosting	*	*	*	*	■	1
www.multiestrenos.com	Public P2P Portal	*	■	*	*	*	1
www.mydescarga.com	Linking Only	*	■	*	*	*	1
www.myemule.biz	Public P2P Portal	*	*	*	■	*	1
www.myvideolinks.eu	Linking Only	*	*	*	*	■	1
www.nakido.com	Hosting	*	*	*	■	*	1
www.netload.in	Hosting	■	■	■	■	■	5
www.newpct.com	Public P2P Portal	*	■	*	*	*	1
www.newwebstar.com	Linking Only	*	■	*	*	*	1
www.nextube.org	Linking Only	*	*	*	■	*	1
www.novamov.com	Hosting	■	■	■	■	■	5
www.nowdownload.ch	Hosting	■	■	■	■	■	5
www.nowvideo.sx	Hosting	■	■	■	■	■	5
www.nox.to	Linking Only	■	*	*	*	*	1
www.oleoo.com	Linking Only	*	*	■	*	*	1
www.omgtorrent.com	Public P2P Portal	*	*	■	*	*	1
www.online-moviez.com	Linking Only	■	*	*	*	*	1
www.oranline.com	Linking Only	*	■	*	*	*	1
www.ororo.tv	Linking Only	*	■	*	■	*	2
www.ourrelease.org	Public P2P Portal	*	*	*	*	■	1
www.partage-facile.com	Hosting	*	*	■	*	*	1
www.pctestrenos.com	Linking Only	*	■	*	*	*	1
www.peliculas4.net	Linking Only	*	■	*	*	*	1
www.peliculasdcine.com	Linking Only	*	■	*	*	*	1
www.peliculasdk.com	Linking Only	*	■	*	*	*	1
www.peliculaskid.org	Linking Only	*	■	*	*	*	1
www.peliculasmass.com	Linking Only	*	■	*	*	*	1
www.peliculasonlineflv.net	Linking Only	*	■	*	*	*	1
www.peliculaspepito.com	Linking Only	*	■	■	*	■	3
www.pelisonlinehd.com	Linking Only	*	■	*	*	*	1

URL	Category	DE	ES	FR	IT	UK	No. Countries
www.powvideo.net	Hosting	■	■	•	•	•	2
www.pelispokes.com	Linking Only	•	■	•	•	•	1
www.picktorrent.com	Public P2P Portal	•	•	•	■	•	1
www.piratestreaming.co	Linking Only	•	•	•	■	•	1
www.piratestreaming2.net	Linking Only	•	•	•	■	•	1
www.planet-films.com	Linking Only	•	•	■	•	•	1
www.planet-series.tv	Linking Only	•	•	■	•	•	1
www.popcornime.io	Public P2P Portal	•	■	■	•	■	3
www.portalnet.cl	Linking Only	•	■	•	•	•	1
www.primewire.ag	Linking Only	■	■	■	■	■	5
www.programasfull.com	Linking Only	•	■	•	•	•	1
www.programaswarez.com	Linking Only	•	■	•	•	•	1
www.promptfile.com	Hosting	■	■	■	■	■	5
www.purevid.com	Hosting	■	■	■	■	•	4
www.quevehoy.com	Linking Only	•	■	•	•	•	1
www.rajtamil.com	Linking Only	■	•	•	•	■	2
www.rapide-ddl.com	Linking Only	•	•	■	•	•	1
www.rapidshare.com	Hosting	■	■	■	■	■	5
www.real-zone.ws	Linking Only	•	•	■	•	•	1
www.recpelis.com	Linking Only	•	■	•	•	•	1
www.regarder-film-gratuit.com	Linking Only	•	•	■	•	•	1
www.repelis.tv	Linking Only	•	■	•	•	•	1
www.rlsbb.com	Linking Only	■	■	•	■	■	4
www.rlslog.net	Public P2P Portal	■	■	■	■	■	5
www.rslinks.org	Linking Only	•	•	•	•	■	1
www.rutor.org	Public P2P Portal	■	•	•	■	■	3
www.scnsrc.me	Linking Only	■	•	•	■	•	2
www.search-torrent.com	Public P2P Portal	•	•	■	•	•	1
www.seasonvar.ru	Linking Only	■	•	•	•	•	1
www.secureupload.eu	Hosting	■	■	•	•	■	3
www.seedpeer.me	Public P2P Portal	■	■	■	■	■	5
www.sendspace.com	Hosting	■	■	■	■	■	5
www.serials.us	Linking Only	•	■	■	•	•	2
www.series-ddl.com	Linking Only	•	•	■	•	•	1
www.seriesflv.net	Linking Only	•	■	•	•	•	1
www.seriesyonkis.com	Linking Only	•	■	•	•	•	1
www.seriesyonkis.sx	Linking Only	•	■	•	•	•	1
www.shaanig.com	Linking Only	■	•	•	•	■	2
www.sharebeast.com	Hosting	■	■	■	•	■	4
www.shared.sx	Hosting	■	•	•	•	•	1
www.shareflare.net	Hosting	■	■	■	■	•	4
www.share-online.biz	Hosting	■	■	■	■	■	5
www.sipelículas.com	Linking Only	•	■	•	•	•	1
www.smarttorrent.com	Public P2P Portal	•	•	■	•	•	1
www.sockshare.com	Hosting	■	■	■	■	■	5
www.softmaroc.org	Linking Only	•	•	■	•	•	1
www.solarmovie.ag	Linking Only	■	•	■	•	■	3
www.solarmovie.is	Linking Only	■	■	•	■	•	3
www.solarmovie.me	Linking Only	•	•	•	•	■	1
www.speedlounge.in	Linking Only	■	•	•	•	•	1
www.stream.cz	Hosting	•	•	•	•	■	1
www.streamingclit.com	Linking Only	•	•	■	•	•	1
www.streamiz.nu	Linking Only	•	•	■	•	•	1
www.streamiz-filmze.com	Linking Only	•	•	■	•	•	1

URL	Category	DE	ES	FR	IT	UK	No. Countries
www.thedarewall.com	Linking Only	.	.	.	.	■	1
www.streamov.com	Linking Only	.	.	■	.	.	1
www.subadictos.net	Linking Only	.	■	.	.	.	1
www.subtorrents.com	Public P2P Portal	.	■	.	.	.	1
www.sucine.org	Linking Only	.	■	.	.	.	1
www.sumotorrent.sx	Public P2P Portal	.	.	■	.	■	2
www.szene-streams.com	Linking Only	■	.	.	.	.	1
www.t411.me	Public P2P Portal	.	■	■	.	.	2
www.telecharger-tout.com	Linking Only	.	.	■	.	.	1
www.teveonline.net	Linking Only	.	■	.	.	.	1
www.thepiratebay.se	Public P2P Portal	■	■	■	.	■	4
www.thevideo.me	Hosting	■	.	.	.	■	2
www.tnttorrent.info	Public P2P Portal	.	.	.	.	■	1
www.todotorrents.com	Public P2P Portal	.	■	.	.	.	1
www.tomadivx.org	Public P2P Portal	.	■	.	.	.	1
www.topanalyse.com	Linking Only	.	.	■	.	.	1
www.torlock.com	Public P2P Portal	.	■	.	■	■	3
www.torrent.cd	Public P2P Portal	.	■	■	■	■	4
www.torrentbit.net	Public P2P Portal	.	.	.	■	■	2
www.torrentdownloadadvertis .me	Public P2P Portal	.	■	■	■	.	3
www.torrentdownloadz.com	Public P2P Portal	.	.	.	■	.	1
www.torrented.com	Public P2P Portal	.	.	.	■	.	1
www.torrentfrancais.com	Public P2P Portal	.	.	■	.	.	1
www.torrentfunk.com	Public P2P Portal	.	.	■	■	■	3
www.torrenthound.com	Public P2P Portal	■	■	■	■	■	5
www.torrentreactor.net	Public P2P Portal	.	■	■	■	■	4
www.torrentroom.com	Public P2P Portal	.	■	.	■	■	3
www.torrents.to	Public P2P Portal	.	.	■	■	■	3
www.torrentzap.com	Public P2P Portal	.	.	.	■	.	1
www.tousstreaming.com	Linking Only	.	.	■	.	.	1
www.tubeplus.me	Linking Only	■	■	■	■	■	5
www.tumejortv.com	Linking Only	.	■	.	.	.	1
www.tumi.tv	Hosting	.	■	.	.	.	1
www.tutankemule.net	Public P2P Portal	.	.	.	■	.	1
www.tvshow7.eu	Linking Only	.	.	.	.	■	1
www.uloz.to	Hosting	■	.	.	.	■	2
www.ultimatez.net	Linking Only	.	■	.	.	.	1
www.unibytes.com	Hosting	■	■	.	.	.	2
www.unlimstream.com	Linking Only	.	.	■	.	.	1
www.uploadable.ch	Hosting	■	■	■	■	■	5
www.uploadboy.com	Hosting	■	.	■	.	■	3
www.uploadc.com	Hosting	■	.	.	■	■	3
www.uploadrocket.net	Hosting	.	.	.	■	■	2
www.usabit.com	Public P2P Portal	.	■	.	.	.	1
www.ver-flv.com	Linking Only	.	■	.	.	.	1
www.verpeliculasonline.com.ar	Linking Only	.	■	.	.	.	1
www.vidbux.com	Hosting	■	.	.	■	■	3
www.videoscourtesclis.com	Linking Only	.	.	■	.	.	1
www.videoweed.es	Hosting	■	■	■	■	■	5
www.videowood.tv	Hosting	.	.	.	■	.	1
www.vidhog.com	Hosting	.	.	.	■	■	2
www.vidics.ch	Linking Only	.	.	.	.	■	1
www.vidshark.ws	Hosting	■	.	.	.	■	2
www.vip-file.com	Hosting	■	■	.	■	.	3

URL	Category	DE	ES	FR	IT	UK	No. Countries
www.watchfreemovies.ch	Linking Only	■	•	■	•	■	3
www.vitorrent.org	Public P2P Portal	■	■	■	■	■	5
www.vizyonfilmizle.net	Linking Only	■	•	•	•	•	1
www.vodu.ch	Hosting	■	•	■	•	■	3
www.voirfilms.net	Linking Only	•	•	■	•	•	1
www.vovf.eu	Linking Only	•	•	■	•	•	1
www.vplay.es	Linking Only	•	■	•	•	•	1
www.v-vids.com	Hosting	•	•	•	■	•	1
www.warez-bb.org	Linking Only	■	•	■	■	■	4
www.warezfull.biz	Linking Only	•	•	•	■	•	1
www.wareztuga.tv	Linking Only	■	■	■	•	■	4
www.watchmoviespro.pw	Linking Only	•	•	•	•	■	1
www.watchonlineseries.eu	Linking Only	•	•	•	•	■	1
www.wawacity.su	Linking Only	•	•	■	•	•	1
www.wawa-film.net	Linking Only	•	•	■	•	•	1
www.x-caleta.com	Linking Only	•	■	•	•	•	1
www.xfobo.com	Linking Only	■	•	•	■	•	2
www.xvidstage.com	Hosting	■	•	•	•	•	1
www.yaske.to	Linking Only	■	■	•	•	•	2
www.yify-torrent.org	Public P2P Portal	•	■	■	•	■	3
www.youmoviz.tv	Linking Only	•	•	■	•	•	1
www.zalaa.com	Hosting	■	•	•	■	■	3
www.zi-m.com	Linking Only	•	•	•	•	■	1
www.zmovie.in	Linking Only	•	•	•	•	■	1
www.zone-telechargement.com	Linking Only	•	■	■	•	■	3
www.zzstream.li	Linking Only	■	■	■	■	■	5
www2.zmovie.tw	Linking Only	■	■	•	■	■	4
xtrem-stream.com	Linking Only	•	•	■	•	•	1
yourbittorrent.com	Public P2P Portal	•	•	■	■	■	3
yourfiles.to	Hosting	■	•	•	•	•	1
youtubeonfire.com	Linking Only	•	•	•	•	■	1
youwatch.org	Hosting	■	•	■	■	■	4
yts.re	Public P2P Portal	•	■	■	■	•	3
zalukaj.tv	Linking Only	■	•	•	■	■	3
zate.tv	Linking Only	•	■	•	•	•	1
zonadicto.org	Linking Only	•	■	•	•	•	1

Sites without adverts

URL	DE	ES	FR	IT	UK
apnadesiforums.com	■
awesomedl.ru	■	■	.	.	■
cinetopia.ws	■
damedivx.com	.	■	.	.	.
de.ddl.me	■
depfile.com	.	.	■	.	■
dirtywarez.com	■
divxcentral.com	■
divxplanet.com	■	.	.	.	■
eztv.it	■	■	■	■	■
filesmonster.com	■	.	■	.	.
funxd.in	■
gorillavid.in	■	■	■	■	■
h33t.to	.	.	.	■	.
hd-area.org	■
keep2share.cc	■	.	.	■	■
mega.co.nz	■	■	■	■	■
movpod.in	.	.	.	■	■
mygully.com	■
netu.tv	.	■	■	■	.
online.stepashka.com	■
rapidgator.net	■	■	■	■	■
rapidmoviez.com	■	■	.	■	■
rlsbb.fr	.	.	■	.	.
rodfile.com	■	.	.	.	■
scrapetorrent.com	■
sharecash.org	.	■	.	■	.
todotorrents.com	.	■	.	.	.
torrented.com	.	.	.	■	.
torrents.fm	.	■	.	.	■
torrenty.org	■
Torrentz.cd	.	.	.	■	.
tv-release.net	■
twomovies.us	.	■	.	.	.
upstore.net	■	.	■	■	.
usdrama.net	.	■	.	.	.
vidxden.com	■
watchmovies.to	■	.	.	.	■
www.1st-files.com	.	.	■	.	.
www.4-shared.eu	■
www.alluc.to	■	■	■	■	■
www.allyoulike.com	■
www.boerse.bz	■	■	■	■	■
www.btoft.com	.	.	.	■	.
www.chameleons-download.com	.	.	.	■	■
www.datafile.com	■	.	■	■	■
www.desitorrents.com	■

URL	DE	ES	FR	IT	UK
www.downall.net	.	.	■	.	.
www.elitefreak.net	.	■	.	.	.
www.feature-film.org	■
www.fileserve.com	■	■	.	■	.
www.filmai.in	■
www.filmeonline3d.ro	.	.	.	■	.
www.freshwap.me	.	.	■	.	.
www.gigaflat.com	■
www.intercambiosvirtuales.org	.	■	.	.	.
www.keep2s.cc	■
www.lostfilm.tv	■
www.mixturecloud.com	.	.	■	.	.
www.mondowarezz.com	.	.	.	■	.
www.movs.ch	■
www.myemule.biz	.	.	.	■	.
www.nakido.com	.	.	.	■	.
www.netload.in	.	■	■	.	■
www.nextube.org	.	.	.	■	.
www.novamov.com	■
www.nox.to	■
www.oleoo.com	.	.	■	.	.
www.ororo.tv	.	■	.	■	.
www.rapidshare.com	.	■	■	.	■
www.real-zone.ws	.	.	■	.	.
www.scnsrc.me	.	.	.	■	.
www.search-torrent.com	.	.	■	.	.
www.secureupload.eu	■	■	.	.	■
www.seriesyonkis.sx	■
www.shareflare.net	.	■	.	■	.
www.sucine.org	.	■	.	.	.
www.szene-streams.com	■
www.torrentbit.net	.	.	.	■	■
www.torrentdownloadz.com	.	.	.	■	.
www.tutankemule.net	.	.	.	■	.
www.ultimatez.net	.	■	.	.	.
www.unibytes.com	.	■	.	.	.
www.vidhog.com	■
www.vip-file.com	■	■	.	■	.
www.warez-bb.org	■	.	■	■	■
www.xfobo.com	■	.	.	■	.
www2.zmovie.tw	■	■	.	■	.

Appendix C: Interactive Advertising Bureau's Quality Assurance Guidelines

The Interactive Advertising Bureau (IAB) produces Quality Assurance Guidelines (QAG) relating to companies selling advertising in the digital marketplace. Intermediaries can achieve certification as being QAG compliant. The aim behind the guidelines is to give advertisers reassurance about where and how their advertising will be placed if they buy services from a certified company.

The IAB is a global network comprising many national IABs. All the countries involved in this study have their own IAB. It is worth noting that the guidelines do not apply to ad exchanges that are technology platforms only (merely providing tools to enable direct media buying and selling between participants).

The current version of these guidelines, v 2.0, was published on 25 July 2013. Compliance with the guidelines is voluntary; however, companies can apply to the IAB to be certified as guideline-compliant.

At 4.2.5, the IAB guidelines prohibit the sale of any advertising inventory including sites which fit into the following categories:

- Copyright infringement
- Promote spyware or malware
- Warez (P2P, torrent, illegal music downloadverts , pirated software)
- Illegality (drugs, bombs etc)

The guidelines also ensure that there is transparency between the seller of advertising space/placement and the purchaser, via a series of defined disclosures about how/where the adverts will be placed. These disclosures should be made when the contract between buyer and seller is entered into and are therefore less relevant to this study.

Companies choose to either self-certify in order to demonstrate compliance with the guidelines, or they can be independently certified (although only one has chosen this latter option so far). In many cases, it appears to be the parent company that achieves certification and not the individual intermediary.

Of the intermediaries involved in this study, it would appear that Matomy Market and Google's DoubleClick fall under the ambit of the guidelines since Matomy Media and Google (their parent companies) are both self-certified under the IAB guidelines. If it can be established that an intermediary is claiming to be certified as QAG compliant and also that they are selling/placing advertising on sites which fall into the prohibited categories above, then it follows that they would be breaching the guidelines. However, it appears from the guidelines (at 3.6.1) that only a party to a QAG certified transaction (purchase of advertising space/placement) can make a complaint to the IAB about a potential breach.

Appendix D: Payment method sample sites

List of sample sites

The following table is a summary of all the sample sites used in this study together with the payment methods tested. Sites are listed in alphabetical order.

URL	Category	Visa	Mastercard	JCB	Bitcoin	Paypal	PaysafeCard	Sofort Banking	Amazon Payments	Union Pay	PayZA	cashu	Liqpay	Mayzus	Wallet One	PaySera	google wallet	Robokassa	Paymer	Eco Payz	Yandex Money	Ukash	OK Pay	SMS	DaoPay	call2pay	giro pay	Payeer
divxcentral.com	Linking Only				■	■																						
expressleech.com	Hosting	■	■		■		■				■																	■
fileparadox.in	Hosting	■	■		■		■				■												■					
keep2share.cc	Hosting	■	■																									
luckysshare.net	Hosting	■	■									■	■			■								■				
mega.co.nz	Hosting	■	■																						■			
rapidgator.net	Hosting	■	■				■																					
rodfile.com	Hosting	■	■																									
rusfolder.com	Hosting																	■										
scnlog.eu	Linking Only					■																						
terafile.co	Hosting	■	■		■		■									■												
upstore.net	Hosting	■	■				■					■	■		■				■		■							
video.tt	Hosting	■	■																									
www.1st-files.com	Hosting	■	■	■				■	■		■	■	■										■			■	■	
www.crocko.com	Hosting	■																										
www.divxstage.to	Hosting	■	■		■																							
www.fboom.me	Hosting	■	■	■						■								■										
www.keep2s.cc	Hosting	■	■	■	■					■							■											
www.megashares.com	Hosting						■																					
www.mixtorecloud.com	Hosting	■	■				■														■		■					
www.movshare.net	Hosting	■	■		■																							
www.nakido.com	Hosting				■																							
www.netload.in	Hosting						■																		■			
www.nowdownload.ch	Hosting	■	■		■																							
www.nowvideo.sx	Hosting	■	■		■																							
www.purevid.com	Hosting	■																										
www.secureupload.eu	Hosting	■	■		■			■			■	■		■										■				
www.uioz.to	Hosting	■	■								■	■												■				
www.vip-file.com	Hosting	■	■		■				■			■						■						■	■			
www.vodu.ch	Hosting						■																					

