



**Multiscreen**

**Video and Piracy:**

**The Big Picture**

Produced by

**DIGITAL TV** EUROPE

**evolution**

# Introduction

The proliferation of multiscreen video services offered by broadcasters and pay TV distributors as well as the growth in over-the-top subscription, transactional and advertising-supported video offerings has seen content providers making more content available via legitimate sites than ever before. As competition between providers heats up and available bandwidth continues to improve, content owners are also coming under more and more pressure to make their wares available online in earlier windows.

There is evidence that content owners have now overcome many of their concerns about the security aspects of online distribution – if only because the content is already available on the web from illegitimate sources. At the same time, content providers are continuing to invest in solutions to combat piracy and content theft – particularly as they begin to make high-resolution versions of movies and TV shows available on the web. Meanwhile, pay TV service providers themselves are developing a multiscreen offering for their live content including premium series and live sport events.

In August DTVE Intelligence surveyed over 160 video professionals, among whom 21% identified themselves as triple or quad-play operators, 21% as technology providers, 8% as OTT service providers, 6.8% as cable operators, 6.8% as free-to-air broadcasters, 5.6% as IPTV service providers, 4.3% as pay TV channel operators, 3.7% as content aggregators, 3.1% as DTH operators and 3.1% as regulators. The objective of the survey was to find out what they thought about the challenges and opportunities for online video distributors and their perceptions of the threat of content piracy and theft as well as awareness of possible solutions.

The survey found that:

- Subscription VOD is seen as the best route to monetise online video services, with its use as a churn reduction tool by pay TV service providers coming second. Transactional VOD is also seen as important, while electronic sell-through and advertising are seen as relatively less significant as sources of potential revenue.
- While some form of subscription service is seen as the best way to make money, respondents have mixed views about the willingness of consumers to pay for content online. However, asked to consider various specific propositions about the relative attraction of legitimate and illegitimate sites, respondents expressed a more positive opinion, taking the view that consumers would be willing to pay if choice and quality could be guaranteed.
- Respondents to the survey show a marked leaning towards the view that the best way to tackle piracy and content theft is to make content available from legitimate sources in an attractive window. However, a significant proportion also believed that piracy and content theft are likely to remain significant challenges in the future. Respondents also believe that content owners themselves bear the prime responsibility for tackling piracy.
- The theft of content after it is decrypted and played in the clear is seen by our survey sample as the most significant weak point in the content delivery chain as far as security is concerned. A significant proportion of respondents also believe that post-decryption theft is a major threat to revenue security.
- Digital rights management and conditional access systems are seen as the most important tools to combat piracy and content theft, with less faith being expressed in monitoring of websites and take-down notices. Respondents also believe that digital watermarking is an important tool to combat content theft.

# Online video: opportunities and challenges

The proliferation of IP connected devices – notably tablets and smartphones – has driven a dramatic increase in demand for online video services over the last two or three years. Service providers have responded to the growing penetration of tablets and other devices capable of playing back high-quality video by launching multiscreen ‘TV Everywhere’ services. Operators have scrambled to secure rights to deliver as much of their linear channel line-up, as well as on-demand services, over-the-top to iPads and Android devices in order to secure the loyalty of their subscribers and – in some cases – to build an additional revenue stream.

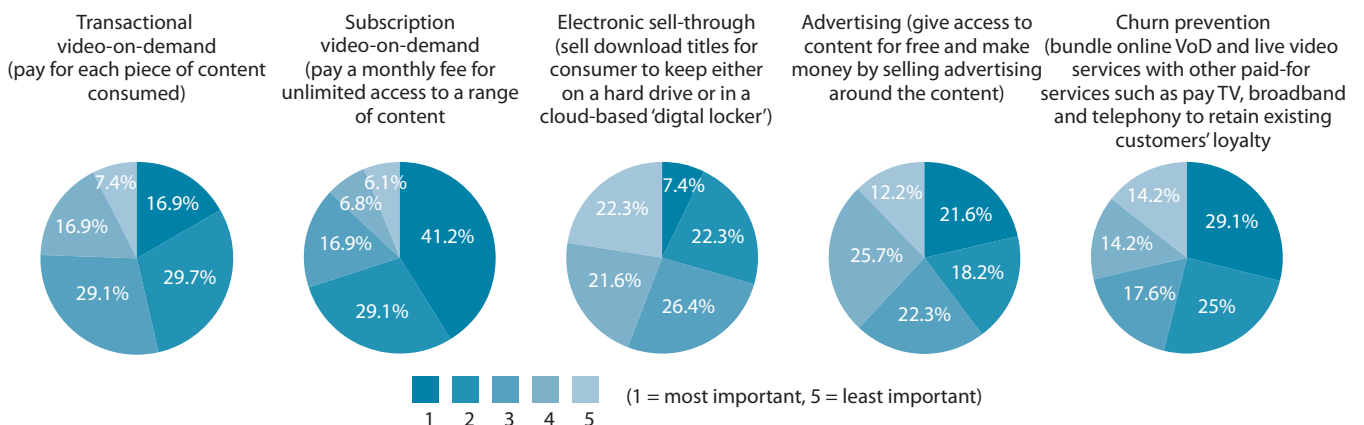
Multiscreen video is still at a relatively early stage of development. While broadcasters and service providers have rushed to get services up and running to meet what they believe is an overwhelming demand from users, they have in most cases yet to work out how best to secure a return on their investment. Many services are provided for free and there is as yet no clear strategy to develop revenue from the kind of advanced advertising solutions that could deliver a payback. Pure OTT providers are also still experimenting with different models such as advertising-supported VOD, subscription services and transactional VOD.

For this report we asked our survey sample to rank five commonly discussed revenue models for online video – transactional VOD, subscription VOD, electronic sell-through, advertising and churn prevention in order of importance. SVOD emerged as a clear winner, with 41.2% of respondents ranking it first in order of importance and 29.1% ranking it second. Churn reduction – a model where service providers with existing offerings typically provide VoD and live TV Everywhere services for free to retain the loyalty of their subscribers, is ranked first by 29.1% and second by 25%. Transactional VOD emerge as a strong second and third choice for many respondents, while electronic sell-through and advertising are regarded more sceptically, with opinion being more divided along the scale (fig.1)

## Challenges

Online video distribution is not without its challenges – including the perception that the distribution of IP video over unmanaged networks is inherently insecure. This has led in the past to some reluctance on the part of owners of premium content to release rights for IP distribution in the same window as mainstream pay TV services. There are signs that this is changing, with TV Everywhere services beginning to become more common, with a growing base of support from channel providers.

Fig.1: What is the best way for pay TV operators to make money from online video?



## Multiscreen Video and Piracy: The Big Picture

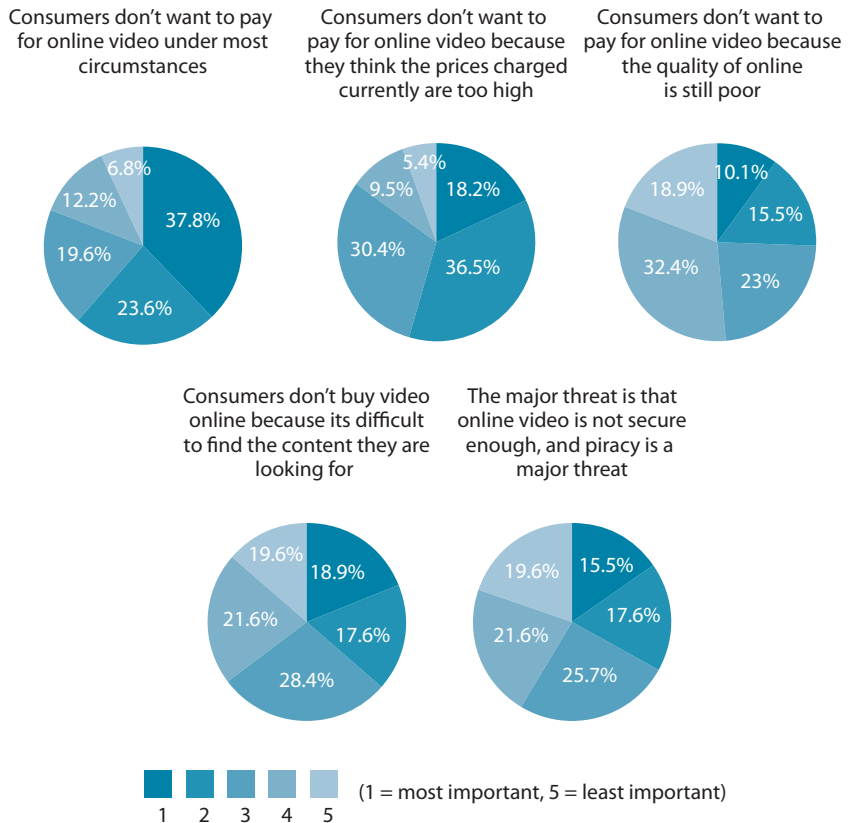
Security is not the only concern, however – there is real concern over the willingness of consumers to pay for services at all. Respondents to our survey were asked to rank five major challenges facing online video service providers as they try to monetise services. The biggest challenge in the view of 37.8% of respondents is that consumers don't want to pay for online video under most circumstances. Also ranked highly is the idea that consumers don't want to pay for online video because of their perception that the prices charged currently are too high.

A significant minority of respondents also see problems faced by content providers in finding online video as a key challenge. The threat of piracy is also seen as an important, but by no means the most important, threat, while the idea that consumers are turned off paying for online video services because the quality of experience is relatively poor is seen as much less significant (fig.2).

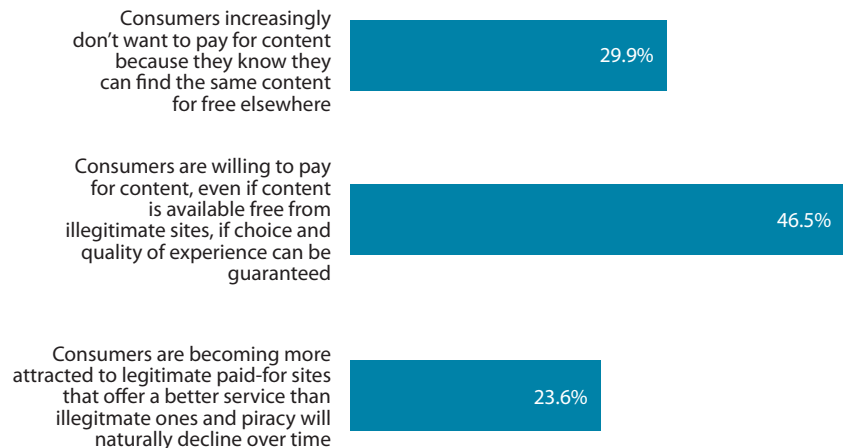
Clearly, the results show a certain scepticism about the willingness of consumers to pay in a world where many have been accustomed to view anything online as 'free' is widespread. Since the free availability (from illegitimate sources) of much of the content that could otherwise be charged for is one of the main causes of this unwillingness to pay, content security is in fact highly relevant.

However, respondents' views on the willingness of consumers to pay are, taken as a whole, more nuanced than the top line responses outlined above would suggest. Asked to choose the statement that best reflected their view out of a choice of three (fig.3) almost half – 46.5% – of respondents selected the statement "Consumers are willing to pay for content, even if content is available free from illegitimate sites, if choice and quality of experience can be guaranteed." A further 23.6% opted for the most optimistic of all the statements ("Consumers are becoming more attracted to legitimate paid-for sites that offer a better service than illegitimate ones and piracy will naturally decline over time") while just under a third opted for the pessimistic statement: "Consumers increasingly don't want to pay for content because they know they can find the same content for free elsewhere."

**Fig.2: What do you think are the major challenges facing online video service providers?**



**Fig.3: Considering the willingness of consumers to pay for content, please choose one of the following statements that best reflects your view:**



# Online piracy: the threat

Our survey results show that scepticism about the willingness of consumers to pay is combined with optimism that they might pay under the right circumstances – if the service is better than that provided by illegitimate sites and the right choice of content is made available.

This is reflected in the responses when we asked survey participants to choose the statement that best reflected their view on the future of online piracy (fig.4). The most popular answer – chosen by 44.4% – is that “Content theft will decline naturally over time as more content is made available from legitimate sources.” A significant minority – 22.2% – believe, on the contrary, that “Content theft is going to grow as techniques available to source and consume content illegitimately become more sophisticated.”

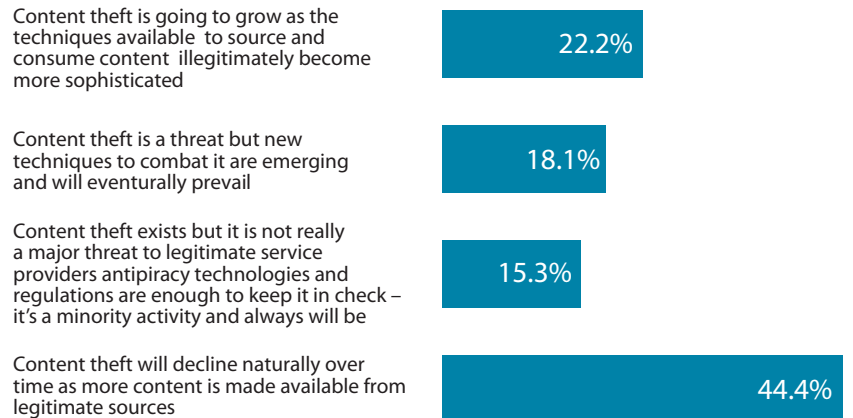
There is relatively little optimism that technology alone can provide an answer to the piracy threat. Only 15.3% of respondents selected the statement “Content theft is a threat but new techniques to combat it are emerging and will eventually prevail.”

The notion that piracy is “not really a major threat to legitimate service providers” and that it is a “minority activity” that can relatively easily be held in check attracted fewer votes still, however. This option was selected by only 15.3% of our sample.

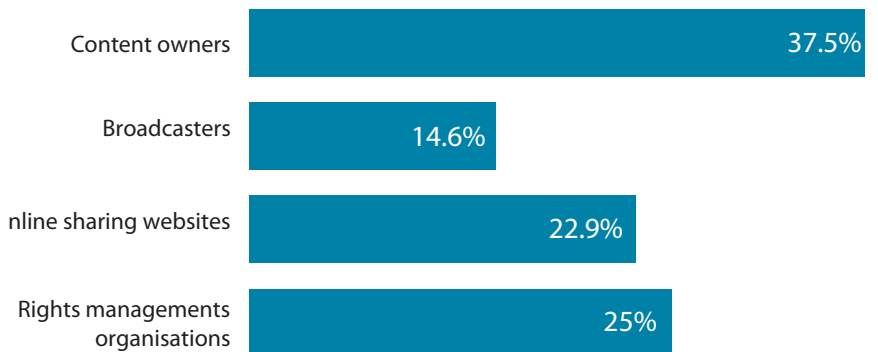
## Attributing responsibility

Overall, it is clear that our survey respondents lean to the view that one of the main incentives to view content from illegitimate sources is the lack of availability of content on legitimate sites, suggesting that primarily responsibility lies with content owners. This is also the case when it comes to attributing responsibility to tackle the piracy problem. Asked who has primary responsibility for tackling the problem of illegal content redistribution on the web, 37.5% said that the content owners themselves should shoulder the principal share of the burden (fig.5) while 25% chose rights management organisations and 14.6% chose broadcasters. Only 22.9% said the principal responsibility should lie with online sharing websites.

**Fig.4: Considering the question of content piracy, which of the following statements best describes your view**



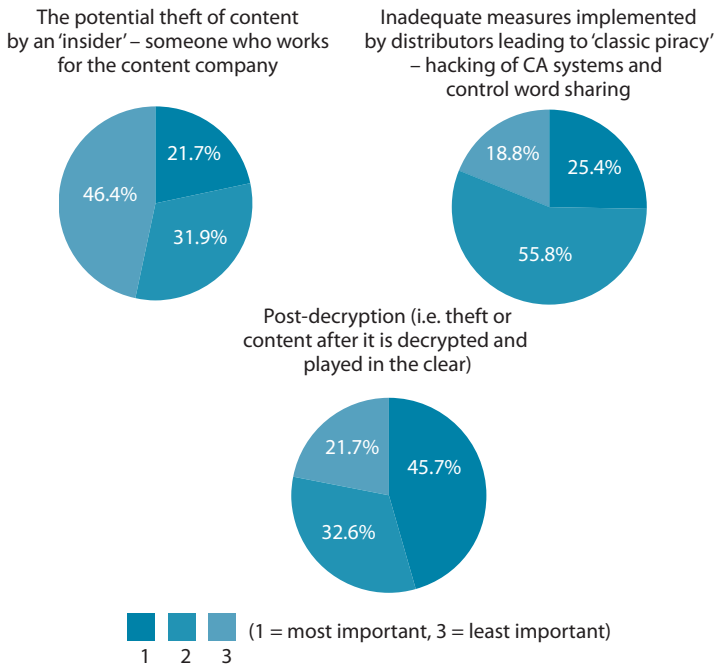
**Fig.5: Who has primary responsibility for tackling the problem of Broadcast/Broadband illegal content redistribution over the Internet?**





# The distribution chain

**Fig.6: What do you think are the 'weak points' in the chain when it comes to delivering content securely and maintaining control of distribution?**



While content owners are held by our survey respondents to have primary responsibility both for ensuring that content is made available online via legitimate routes in order to make legitimate consumption attractive, and for policing and tackling piracy, content owners (and those who work for them) are not perceived to be the primary culprits when it comes to content leakage.

Asked to rank in importance what they think the 'weak points' in the content delivery chain are when it comes to security and maintaining control of distribution, 45.7% of our respondents say that 'post-decryption' – the theft of content after it is decrypted and played in the clear – is the most significant weak point. This option was ranked second out of three by a further 32.6% of respondents (fig.6).

Classic piracy – meaning the hacking of conditional access systems and control word sharing due to inadequate measures being implemented by distributors – is regarded as relatively less important, but still significant, being ranked first out of three options by 25.4% and second by 55.8% of our survey sample.

Finally, the theft of content by an 'insider' who works for the content company itself is seen as relatively less important as a risk factor. Only 21.7% ranked this first out of the three options available, while 46.4% said it was the least significant of the three.

**Fig.7: Still looking at the question of content piracy/theft, which of the following statements best describes the extent to which you consider theft of content after it is decrypted – to be a major threat to revenue?**



### Threats to revenue

Clearly post-decryption is seen as the major weak point in the delivery chain to the end consumer in relation to content security. A clear majority of respondents to our survey – 85.4% – believe that the post-decryption theft of content is a threat to revenue, with over half that number – 44.2% believing it is either the single most important threat to revenue or a very significant threat. Only 12.3% of respondents believe that the post-decryption theft of content is not a significant threat. Awareness of post-decryption piracy is also extremely high, with 97.1% of respondents being aware of it (fig.7).

# Combating piracy: the solutions

Awareness of the post-decryption threat to content security in particular is clearly high among the survey sample. We also asked respondents to rank common solutions and tools that are used to combat piracy and content theft. Here, our survey demonstrated a relatively high degree of faith in classic technology solutions.

Digital rights management systems are seen as the most important antipiracy tool by 44.2% of respondents, followed by conditional access systems – chosen as the number one solution by 37% of the sample. Digital watermarking was voted the most important antipiracy tool by 26.1% of the survey, and was made second choice out of the four options by 31.9%. Monitoring websites and take-down notices attract relatively less interest, and is seen as the least important of all the options on offer by 30.4% of respondents (fig.8).

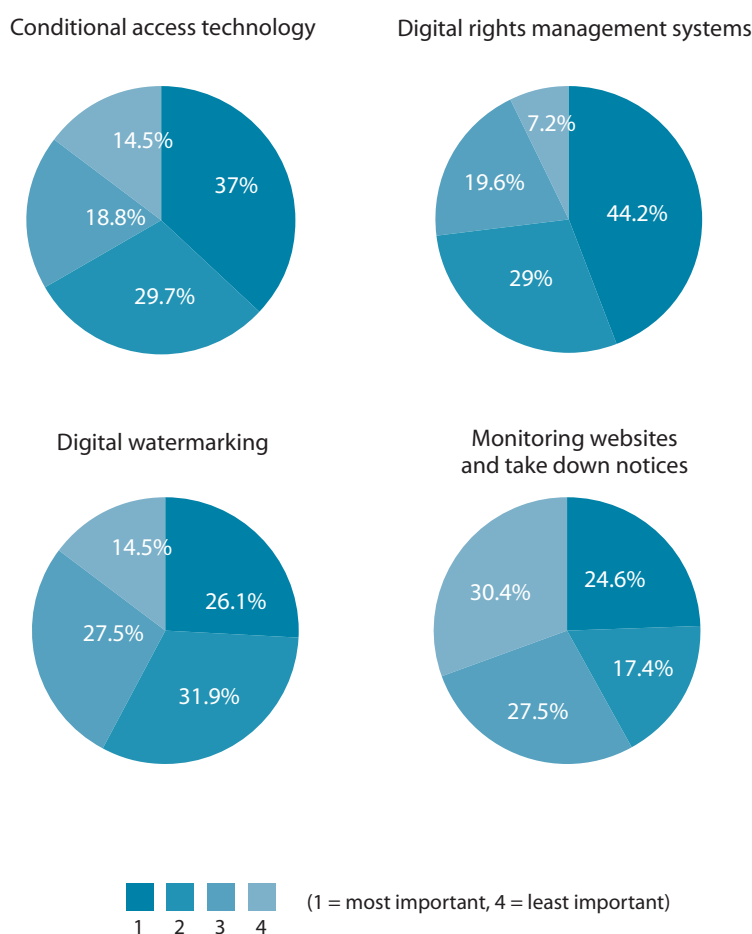
We also asked our survey sample specifically whether take down notices were an appropriate solution to address piracy and illegal re-distribution of content. A majority – 52.2% – say they are not in favour (fig.9).

## Digital watermarking

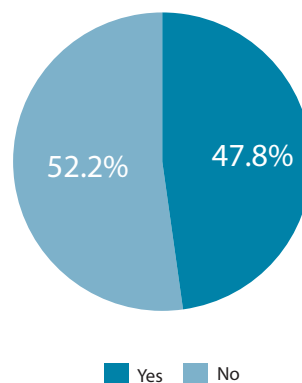
The sample was also asked specifically about their views on digital watermarking – the insertion of a streaming session-identifying marker in the images, to identify the source of potential leaks. Respondents demonstrated a high level of awareness of the technology, with 97.1% saying they know what it is. A large majority – 73.2% – also rate digital watermarking as a useful tool or an important weapon in the fight against piracy, with 29.7% viewing it as “an important weapon in combating piracy” that is “likely to become a standard feature of online content, working in tandem with DRM”. Digital watermarking was viewed as “useful in some instances” but “less important than DRM” in combating piracy by 43.5% - the largest single group of respondents to this question (fig.10).

Among those with a less positive view of the usefulness of watermarking, 17.4% of the sample view it as a technology that “adds relatively little to the existing pool of antipiracy technologies such as conditional access systems and DRM” and a small minority – 6.5% – believe it is “mostly useless”. (see fig.10 overleaf)

**Fig.8: Consider the following technology/business tools that can be used to combat content theft/piracy and rank them in order of importance.**

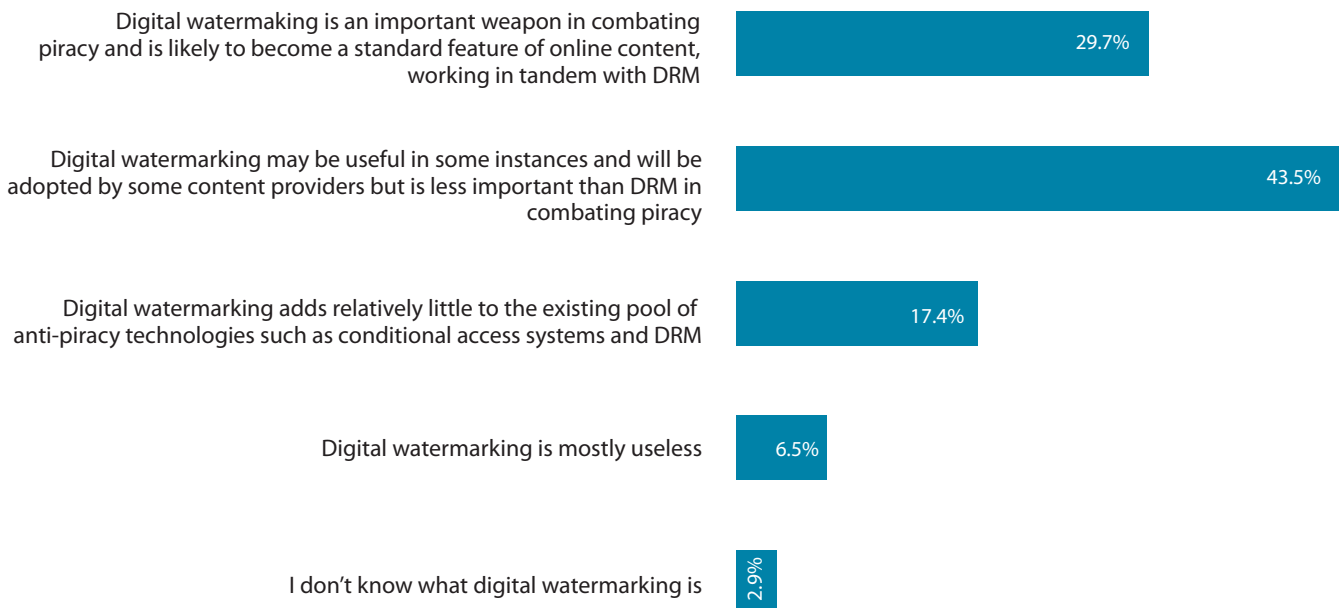


**Fig.9: Do you believe the take-down notices are an appropriate solution to address the piracy and illegal re-distribution issues?**



## Multiscreen Video and Piracy: The Big Picture

**Fig.10: To what extent do you think that digital watermarking technology can provide a solution to combat theft of content? Please pick one from the following statements that best describes your view:**



## Conclusion

Industry perceptions of online video reflect the fact that this is still a business at an early stage of development, with monetisation models still a work in progress. Industry participants believe that pay models in the form of subscription services represent the best route to success. While getting people to pay for online content remains highly challenging, the respondents to our survey are, on the whole, of the view that people will be willing to pay for services in the content mix is right and the viewing experience is of high enough quality.

Piracy and content theft remains a key challenge for the online video industry, not so much by disincentivising content providers from making their wares available via legitimate services but by providing an alternative free source of that content

in the form of illegitimate sites. Our survey sample nevertheless believes that the provision of more content on legitimate sites will, over time, lead to a diminution of illegitimate content consumption on the web. At the same time, it remains important to tackle piracy and content theft head on. In the view of our industry survey sample, this is primarily the responsibility of content owners themselves.

Looking at content theft and piracy more closely, our survey shows a strong awareness of the danger of post-decryption theft, with this being seen as the weakest part of the delivery chain. The positive view taken by survey respondents of digital watermarking technology reflects the degree of concern amongst respondents about post-decryption piracy.



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