



GfK NOP Social Research

GfK. Growth from Knowledge



Qualitative research into online digital piracy

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1 Introduction

1.1 Background

Ofcom was set up under the Communications Act 2003 and is the independent regulator and competition authority for the UK communications industries. Ofcom seeks to ensure that people in the UK get the best from their communications services and are protected from scams and sharp practices, while ensuring that competition can thrive.

Ofcom has a duty to promote public understanding of the nature and characteristics of material published using electronic media and to promote awareness of the processes and systems used to access such material. Ofcom also operates under a regulatory principle of researching markets constantly and aiming to remain at the forefront of technological understanding.

With this in mind, Ofcom wished to increase its understanding of the key drivers and motivations behind consumer file sharing activity. It therefore commissioned qualitative research to explore and understand the core motivations of file sharers. Much of the available published research in this area to date has focused on downloading activity. To further its understanding, Ofcom therefore sought to focus this research on the uploading, rather than downloading, of unauthorised material.

In 2010, Ofcom's remit was extended through the enactment of the Digital Economy Act which requires Ofcom, Internet Service Providers (ISPs) and copyright owners to implement measures targeting online copyright infringement. Under this Act Ofcom must report to the Secretary of State on progress in tackling online infringement. This report will assess issues such as the extent to which copyright owners have sought to educate consumers on matters relating to copyright infringement and the extent to which they have sought to offer lawful access to their content. It is hoped that a secondary benefit of this qualitative research is that it may help inform the design of any further research that Ofcom undertakes as part of this reporting duty.

This report details the findings of the qualitative research with reference to the attitudes and motivations of file sharers in relation to file sharing behaviour and habits, perceptions of the risks associated with file sharing and participants' justifications for file sharing. It also examines their awareness and understanding of the legal and potential consequences of their actions. The report ends with an exploration of a range of measures that are likely to deter people from continuing to file share in the future.

1.2 Objectives

The overarching objective of this research project was to provide Ofcom with insight into the key drivers and motivations behind the online sharing and uploading of copyrighted material in order to further their understanding of the behaviour and attitudes displayed by file sharers. The specific aims of the research are given below.

Specific research objectives:

- Explore volume and frequency of uploading / downloading activities among specific individuals
- Evaluate what type of media content people are uploading and downloading
- Understand the motivations for file sharing / uploading
- Identify the existence of any social norms that have developed around file sharing
- Seek to understand in more detail individuals' awareness and understanding of the uploading process:
 - Are they aware that they are doing it?
 - How do they think it works?
 - What do they think others can access in their archives / files via this process?
- Investigate individuals' attitudes towards lawful vs. unlawful file sharing / uploading, including awareness of and attitudes towards the consequences of file sharing
- Investigate potential deterrents to file sharing (social, technical and legal)

2 Research method

A qualitative research method was employed to fully explore and understand individual behaviours and attitudes in detail, allowing participants a forum to talk about their experiences and views in their own words. Participants were recruited to the research using a free-find recruitment method. This method involves recruiters approaching potential participants in areas such as town and city centres where they will administer a questionnaire to establish eligibility to take part in the research. The research was conducted in three stages beginning with a review of online forums, followed by a series of in-home ethnographic depth interviews and ending with a post-interview diary task.

Please note that as this research was conducted using a qualitative method, the sample size is relatively small and therefore the results are less generalizable than in larger scale studies.

A) Review of online forums

A short desk review of online file sharing forums was carried out to assist in the development of question areas and approaches for the subsequent stages of the research (see section 12.2. for list of the sites reviewed). This was to help identify:

- The type of language being used
- Attitudes and behaviours relating to the legality of unauthorised file sharing
- New developments in the world of file sharing

B) Ethnographic depth interviews

36 in-home ethnographic depth interviews were carried out in four different cities¹.

- 24 interviews were carried out with adult participants aged 18+
- 12 friendship or paired depth interviews were carried out with younger participants². Friendship pairs were used for younger participants to enable them to feel more comfortable in taking part in the research and to assist in initiating dialogue around file sharing between the two friends

Each interview lasted between 1.5 to 2 hours and consisted of an interview element and an observation of the participant as they went about their file sharing activities.

C) Post interview research

All participants were asked to take part in post interview research in order to explore further their attitudes and behaviours around file sharing. The participants aged 18+ years were asked to take part in an online discussion board whilst younger participants were asked to

¹ Ethnographic in-depth interviews are extended in-depth interviews involving an element of participant observation. The interviews were conducted in London, Bristol, Coventry and Leeds.

² Paired depths are conducted with two participants in friendship pair. This was used for the young people as we expected that they would feel more comfortable in talking to a researcher in the presence of a friend.



complete a handwritten diary. The post interview research combined a daily diary element and set activities which were designed to elicit deeper insight into the motivations of a file sharer.

2.1 Sample

Participants were chosen to take part in the research based on their responses to a recruitment screening questionnaire which was administered to gain an understanding of their file sharing activities including volume and frequency of file sharing, the types of applications they were using, and the type of media content being shared.

Overall, 37 males and 10 females took part in the research. Participants ranged in age from 12 – 52 and fell across a range of BC1C2DE socio-economic groups. The participants were stratified by the frequency of their file sharing activities and their self-defined level of file sharing knowledge into 'mainstream', 'moderate' and 'heavy' file sharers.

Participants defined their knowledge by agreeing to one of the following statements:

- I would describe myself as an occasional user when it comes to file sharing and not necessarily familiar with all the methods out there for finding files (Mainstream)
- I would describe myself as moderately knowledgeable when it comes to file sharing and I am familiar with quite a few of the opportunities out there for finding files (Moderate)
- I would describe myself as a bit of an expert when it comes to file sharing and I think I am familiar with most of the opportunities out there for finding files (Heavy)

Frequency of file sharing activity	Adults Aged 17-52 years	Children and young people Aged 12-16
Mainstream	7	9
Moderate	8	12
Heavy	9	2
TOTAL	24	23* (12 interviews in total)

* Please note: One respondent was interviewed alone as opposed to in a pair

3 Summary findings

- File sharing was viewed by research participants as being a mainstream activity. There was little sense of 'community' around file sharing and the research suggests that file sharing is not considered a niche activity, but something that 'everyone' is doing.
- This view, that file sharing is a mainstream activity, was strongest amongst the younger participants. For younger participants it was clear that file sharing was the 'normal' way to access content and typically used for popular music singles.
- Although file sharing was viewed by research participants as being a mainstream activity, many were naïve about how the file sharing process works. In particular, many of the younger and less tech savvy participants were not aware that when using peer-to-peer file sharing sites they were also allowing others to share their files.
 - Unconscious uploaders: younger and less tech savvy participants were most likely to be uploading content without being conscious that this was happening.
 - Conscious uploaders: For those consciously uploading content there tended to be a feeling that they should continue to allow uploads in order to 'give back' in order that the sharing of files is able to continue.
- For the more tech savvy users, uploading via peer-to-peer networks triggered improved download capacity.
- Across the research there was little motivation to upload original material, except amongst those with the strongest involvement with the content.
- Potential deterrents varied considerably for different types of file sharers.
 - The research indicates that for the more naïve and less committed file sharers, increasing their awareness of wrongdoing and highlighting the potential consequences of continuing their activities could act to deter them from further file sharing.
 - However it was clear that the more savvy and committed file sharers would require evidence of serious consequences being faced by peers. This is likely to result in them being able to view their own activity in a different light and deter them away from file sharing.

4 Review of online forums

The review of online forums is structured in four sections. In the first, we discuss the form of language used in online forums. Secondly, we discuss examples of forum posts that express anxiety about the security of online file sharing. Thirdly, we discuss justifications and debates around online copyright infringement. Finally, we report on discussions of new developments within online file sharing. Terms are explained within the glossary in section 12.3.

A) Forum language

Participants in online file sharing forums tended to employ a hard, instrumental language. Many threads were started by participants wanting advice on technical problems such as problems caused by 'torrenting' when using particular file sharing applications. Forums were also an important source for finding out about other forms of file sharing with people posting questions asking for readers' views of one file sharing application over another.

The talk within online file sharing forums seemed to be characterised by a desire for *information-sharing*. Relatively rare was a softer form of talk focused around creating a shared bond with other participants. Evidence for this type of talk was occasionally found in general discussion boards (where participants can engage in off-topic discussions), and also within discussions on the ethics of online copyright infringement. Some participants appeared as passionate advocates of file sharing, and supported each other's posts with comments like 'right on!', 'spot on!' and 'good point'.

Nevertheless, softer talk was uncommon and only rarely did participants reveal personal information about themselves: for example, in contrast to forums for many other activities, it was rare for participants to state their city or even location on their forum profile. We would suggest that although this guardedness may arise partly from security concerns (see next section), it may also relate to a wider question of identity. Whether participants used online forums to articulate a social identity as a file sharer, or whether being a file sharer was considered to be an important source of identity, seemed to be unclear.

Despite its potential to deliver a sense of a collective identity being somewhat ambiguous, the online file sharing community seemed to have formed criteria for exclusion. Many forum participants utilised an advanced technical vocabulary and lack of technical knowledge appeared to be a barrier to inclusion with the file sharing community. Resultantly, some participants adopted an apologetic tone when requesting help or advice in this area.

In other cases, experienced users appeared unwilling to help less experienced users, often subjecting them to scorn. We would suggest that these participants tended to be the harder core of file sharers rather than casual users.

B) Anxiety and Security

Apart from information sharing about technical issues and new forms of file sharing, one way in which participants used the community was to seek advice and support in dealing with specific threats to their file sharing activities. Our review suggests that these threats fall into two categories:

- Threats from official anti-file sharing sources (e.g. British Recorded Music Industry (BPI), Internet Service Providers (ISPs), ACS:Law³, other specialist intellectual property solicitors and university network administrators)
- Threats from other file sharers (e.g. scams, hacking and viruses embedded in downloaded files)

There were examples of participants who claimed to have received letters demanding settlement for their unlawful file sharing activities. In these cases, participants turned to the community for help and guidance, and were often directed towards websites like <http://beingthreatened.yolasite.com>, set up for this purpose. Uploaders also used forums to seek advice on how to limit the chances of being caught for their activities.

The threat to security was perceived to come from within the community. We found cases of participants reporting that their computer had been attacked by a virus embedded within a file they downloaded. Also, there was the threat of being scammed by someone within the community. One torrent website, isoHunt, has a forum board that encourages users to report cases of where other users have scammed them for paid torrents over isoHunt's Internet Relay Chat (IRC) channel.

The desire to report threats occasionally appeared as the reason why participants engaged in the community in the first place. This was seen in responses to a discussion on the SuprBay forum of why participants had joined the website where posters stated that they had joined after downloading a number of fake movie torrents. It was not clear whether participants were motivated by a desire for vengeance or more altruistic factors, such as a desire to protect the integrity of the file sharing community.

C) Debates around file sharing online

Many participants have tacitly appropriated the idea of file sharing as being a crime and to some extent unethical, and there is much debate and discussion occurring around this topic in online forums. However, others reject the standard construction of online copyright infringement, disputing the claim that it should be a crime. Some of the justifications that we found were:

- Belief that nearly all of the money goes to the greedy record or film companies, not the artists themselves
- Lack of availability of content on legal download sites
- Belief that Digital Rights Management (DRM) places excessive limits on watching legal content

³ACS:Law was a law firm specialising in intellectual property law. In the online file sharing community, it seems to have gained notoriety for its aggressive tactics against file sharers. The firm stopped trading in January 2011 following its court action against 26 alleged file sharers.

- Doubt that IP rights are needed to protect the works and / or profits of artists
- Doubt that IP rights lead to a greater good for humankind
- A belief that legal content is too expensive, particularly for younger people with limited disposable income, and that if prices were made fairer, individuals would turn away from unauthorised file sharing.

Beyond debate, there were some examples of pro-file sharing activism. The clearest examples were found on the Pirate Party UK forum, but other forums also contained examples, such as posts encouraging others to write to MPs and attempts to establish a coherent pro-file sharing position.

D) Developments in file sharing

In this last section, we consider briefly news of changes in the world of file sharing. An important change is the continued growth of cyberlockers. TorrentFreak, a site dedicated to news around file sharing, ran an article which claimed that in terms of visitor traffic, cyberlockers have now overtaken torrent sites⁴. Some participants perceived cyberlockers to offer faster downloads and better security against their activity being detected by ISPs or the government.

Both cyberlockers and torrents seem to be enjoying growth at the expense of peer-to-peer (P2P) sharing applications like LimeWire, BearShare and Kazaa, apparently because of the successes of authorities in targeting these.

With many successful file sharing websites and applications being targeted by the authorities, participants also seemed to be turning to an increasingly diverse range of methods of file sharing. This seems to include a revival of methods viewed as being more traditional sharing routes, such as IRC or newsgroups, where file sharing was perceived to be harder to detect, and a growth in invitation-only torrent websites. They also seemed to be using various applications to disguise illegal uploading/downloading. This included BT Guard, a subscription application that masks the internet protocol (IP) address of uploaders / downloaders of torrents.

Finally, we found some discussion and concern over whether the next generation of computer operating systems based on cloud infrastructure (such as the forthcoming Windows 8) might have the functionality to eliminate software piracy.

E) Conclusions

Some of the issues the desk research has raised:

- Online forums seemed to be used predominantly for resolving technical issues and sharing information about different forms of file sharing

⁴ <http://torrentfreak.com/cyberlockers-take-over-file-sharing-lead-from-bittorrent-sites-110111/>



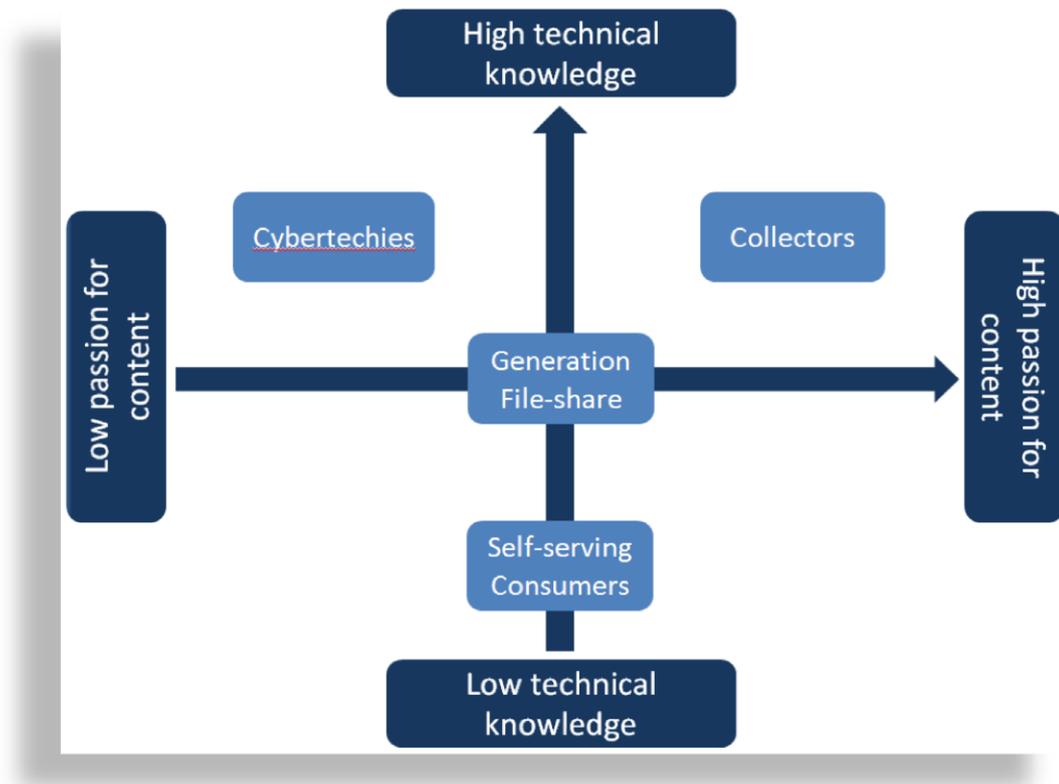
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- Participants only rarely used a softer form of talk that suggested a desire for community, and appeared reticent about revealing too many personal details about themselves
- Participants did use forums to seek support over security issues (which concerned threats from both 'official' sources and threats from within the community)
- There was some evidence that altruism was a motivation for some participants' engagement with the online file sharing community
- Some participants seemed to tacitly accept the illegal nature of their file sharing activities, but we also found many threads where participants debated and justified the ethics of their activities
- Cyberlockers appear to be growing in popularity

5 Overall research findings: File sharing

5.1 Sample characteristics

Research participants fell into four different file sharing typologies, which were identifiable by certain demographic characteristics as well as behaviours, attitudes, mindsets and motivations in relation to file sharing. Key drivers of attitudes, behaviours and motivations in relation to file sharing were passion for the media content, and level of technological expertise. The image below highlights the relationship that the four different typologies had with content and technology. The typologies are explained in more detail below and terms are contained within the glossary in section 12.3.



A) Generation File-share

'Generation File-share' includes children and young people under the age of 18 who have grown up with technology in both their home and school environments. They tend to be competent users of technology as a result of using computers in many aspects of their daily lives; from completing school work to socialising with friends online via social networking sites. With regards to their media interests, this group are primarily interested in music, although their individual taste in music has not yet developed due to their young age and so tends to be driven by their peers. This peer-driven interest in music has resulted in a desire to be at the

forefront of popular UK chart music trends and a need to be the first in their social group to discover new music in order to disseminate this new knowledge amongst their friends. The aspiration results in a desire to access music prior its release and to be the first to sample new music.

"The most important thing is my friends; only just ahead of mobile phones and music...just."

[Male, aged 12-15, Greater London]

Generation File-share have grown up accustomed to music and other media content being available in a digital format and therefore view hard copy media such as CDs as being old fashioned. For this reason, these children and young people tend to access music digitally, by downloading music online and storing it in a digital format on a computer or portable music device such as an MP3 player. The availability of digital music online has also led Generation File-share to regard music as a disposable entity as opposed to a valued commodity.

The easy availability of digital music coupled with a desire to be ahead of UK charts are the key drivers for Generation File-share in accessing unauthorised music content via file sharing applications. For these children and young people, sharing unauthorised content through file sharing applications is the accepted way to access music as soon as possible, before it is released into the UK charts. File sharing of unauthorised material is not a considered behaviour for this group; rather, it is the accepted means by which they and their friends access music. Although the majority typically concentrate on downloading music singles, some of the slightly older teenagers 16-18 reported downloading albums using unauthorised file sharing sites and applications.

"Chart music is really easy to get hold of through torrenting..."

[Male, aged 16-17, Leeds)

Generation File-share have a naïve understanding and awareness of the way that peer-to-peer (P2P) file sharing sites operate. These sites encourage users to upload as well as download content, and in many cases the uploading dimension is effectively a requirement for participation. This means the majority of Generation File-share are unconsciously and passively uploading shared content through these sites. As a result they regard themselves as downloaders only and not 'uploaders'. Because their file sharing is not a considered behaviour, they have not thought about how the content they download ends up online. When they do reflect on who may be uploading content, they believe that this must be done by someone benevolent and altruistic who uploads purely so that others can download the content; they find it difficult to identify reasons why someone might upload content as they cannot see any personal benefit from doing so.

B) Self-serving Consumers

Self-serving Consumers are older adults who tend to have families and busy lives. Their relationship with technology does not stretch beyond their basic needs and they will turn to family or friends for help and advice if they have a problem. They enjoy many different types of popular mainstream media content such as UK Chart music, US TV series such as Lost or

Desperate Housewives, and Hollywood blockbuster films. Their media interests are driven by their household entertainment needs, for example a film for the children or chart music to listen to whilst driving.

"Susan Boyle – I wanted to listen to her music, then I downloaded it, file shared it, and put it in my iPod."

[Female, aged 40+, Leeds]

For this group, unauthorised file sharing is just one way of accessing content easily and immediately. Other options include pay TV packages (e.g. Sky / Virgin), film rental, online shopping (e.g. Amazon or Play.com) and the cinema.

This group tends to be introduced to file sharing by a friend or family member (including younger children) who will show them how to use a certain site or application to download content. There is a tendency to continue to use the file sharing site or application they were first initiated into using as long as it continues to work and they do not have a bad experience, such as downloading malicious content. When they download content, there is also a tendency to store this in a familiar format, such as CD or DVD which allows them to easily move the content around and share it with friends.

"He [partner] used to download a lot of stuff, and I used to forever be asking him to download me films and CDs and that, and then he showed me how to do it myself."

[Female, aged 18-24, Leeds]

Self-serving Consumers are low volume downloaders who tend to have only a moderate understanding of the P2P file sharing process, and some have no understanding of how this process works. For those who do have this understanding, there is little awareness that it is possible to prevent others downloading content from their shared files, and it is generally accepted that uploads are the 'price paid' in order to be able to download. Self-serving Consumers disassociate themselves from uploaders because they perceive uploaders to be those who put original material online for others to download.

C) Collectors

Collectors tend to be adults of a wide range of ages, although some Generation File-share members displayed the beginnings of a Collector mind-set. Collectors are defined by their passion for content and they are likely to enjoy a particular type of niche media content such as 1970's horror films or opera music. They have high technological expertise which is driven by their passion for media and for this reason they are inclined towards jobs or hobbies based around their enjoyment of technology or specific content, for example web design or photography.

Collectors' knowledge and understanding of file sharing has developed through their strong interest in media. File sharing of unauthorised media enables them to expand their knowledge and further their interest in content. File sharing assists Collectors to sample a wide variety of content that they could otherwise not afford in the required volumes, as well as allowing

access to niche content that would be difficult for them to find easily offline. Sampling and easy access to new niche content increases their knowledge and interest, which in turn motivates them to continue file sharing.

Collectors are likely to have used a number of different sites and applications to download content before finding one which suits their needs and which they then remain loyal to, using this as their primary source. They will use other sites and applications to give themselves the widest possible access to content but these tend to be peripheral, with one main overarching site or application predominating.

"I'm very faithful to Pirate Bay...because it's easy and it's got good search functionality on it...and it's got a big database."

[Female, aged 24-30, London]

As more 'savvy' users of file sharing sites, Collectors consciously and actively upload content which they have downloaded in order to share and give-back to other file sharers with similar interests to their own. Generally, they only upload files that they have downloaded and will only upload original material on occasion if it is niche content that will be difficult to find online, or they feel needs to be shared with likeminded file sharers.

"I like to put things up that are probably not out there...specialist tastes...like Opera music that I've not seen elsewhere."

[Male, aged 31-39, London]

There is a general feeling that uploading is not as important as it once was, as content is now so widely available through unauthorised file sharing sites.

D) Cybertechies

Cybertechies are set apart from Collectors as their file sharing behaviour is driven by a strong interest in technology itself as opposed to the content that the technology allows access to. Cybertechies enjoy exploring new technology and the challenges that new technology presents. File sharing of unauthorised material is just one of a range of other technology-related activities they enjoy, others include 'jail breaking' iPhones, 'chipping' or 'cracking' games consoles and building computers.

"I was just intrigued with what you could do with a computer..."

[Male, aged 31-39, London]

Whilst they enjoy a range of content, they do not have a strong interest in a particular genre or type of content. To a certain extent, file sharing appears to be an activity carried out to fill time and prevent boredom i.e. for want of something better to do. The main benefit that Cybertechies gain from file sharing is the ability to download and share large amounts of content with friends and family, particularly films and TV series.

"I've set up FTP servers on my machine so that people [offline friends] can FTP straight onto my machine and pull stuff straight off it⁵. I've uploaded stuff to MegaUpload so that my friends can download it from there."

[Male, aged 24-30, Bristol]

Cybertechies consciously upload unauthorised material through P2P networks, but rarely upload original content, preferring to share the content they have already downloaded. Uploading original material is seen as awkward, technically difficult and frustrating. Uploading as the originator is perceived to no longer be as necessary as it once was, as content is now uploaded in the USA as the primary source and made widely available online through file sharing sites. Consequently, uploading original material in the UK to share through P2P networks is seen to have little benefit for this group. However, this group do share large amounts of content with family and friends using USB drives, external hard drives and online means such as 'Mobile Me'⁶ and Dropbox⁷.

5.2 File sharing journey

A) Initiation

Participants with high levels of technological knowledge were generally introduced to file sharing at a younger age than their less technologically savvy counterparts. Less 'tech savvy' participants could have been introduced to file sharing at any age over the past decade since file sharing became a more 'mainstream' activity.

The exception to this was amongst younger participants, currently aged 12-18 years old. They reported that they and their friends had begun to file share between the ages of 11-13, with some starting younger than this and many reporting that their younger siblings were also file sharing before the age of 11.

"I think I was 11 or 12...I can't remember how I first found out...it was friends from school, they've got brothers, they showed us the website..."

[Female, aged 16-17, Leeds]

That younger participants had begun file sharing before they were 13 years old appeared symptomatic of the fact that they had grown up surrounded by technology. All of the younger participants reported owning mobile phones, with the majority having their own desktop computer or laptop. Mobile phones, MP3 players and the internet featured highly in the lives of these young people and were used to communicate with friends and socialise and many reported using computers during their school lessons. For these young people, the ability to

⁵ FTP (File Transfer Protocol): Please see glossary in section 12.3.

⁶<http://www.apple.com/mobileme/>

⁷<http://www.dropbox.com/>

access shared music online through their computer was a natural extension of other online activities amongst which social networking sites feature highly.

The older 'tech savvy' participants reported that they had been file sharing for a number of years since its inception, and had adapted and changed their file sharing behaviour as the technology had developed. Consequently, the age they began file sharing depended upon their age at this time. For the younger adults under 30, the majority reported being introduced to file sharing during their mid teenage years. The older, less tech savvy participants had begun file sharing at many different ages with some only having been introduced within the past few months ranging up to a few years, reflective of their basic understanding of technology, computers and the internet.

B) Learning

The majority of participants reported learning about file sharing through friends or family, regardless of age. Younger participants generally reported discovering file sharing through hearing about it at school or seeing a friend or sibling using one of the sites. A small number reported that their parents had shown them how to file share. An exception to this were two 13 year-old boys who had not heard of file sharing until a police officer held a talk at their school to discuss the consequences of sharing unauthorised content online, which then prompted them to find out more about file sharing from their friends and start file sharing themselves. Some older, less tech savvy participants reported that their children had introduced them to file sharing sites, installed the necessary applications and given instructions on how to download files.

"She showed me how to do it...a very good friend. She's got an 18 year old son who had got all of these songs and we were having a bit of a joke about how much it was all worth...she showed me how to use LimeWire..."

[Female, aged 40+, Leeds]

C) Applications and sites

The image on the following page shows a selection of the different applications offering access to unauthorised content and sites being used by participants across the research.



There was wide variation in the sites and applications used to share unauthorised content. Choice of application depended upon a number of factors including technological expertise, appetite for specific types of content and previous experiences of file sharing, both positive and negative. The majority of participants, especially the less technologically knowledgeable, were using P2P file sharing sites and although this was also the main preference for the more tech savvy participants, this group were more likely to report using P2P in conjunction with other means of gaining unauthorised content.

Younger people

Despite the range of sites, there were some distinctions between less savvy participants and those with more expertise. Many less tech savvy participants reported being initiated into file sharing through the P2P file sharing application LimeWire. This was a popular site that participants had heard about from friends or family and had begun using themselves. They described the LimeWire application as simple and easy to download and install on a computer or laptop and easy to use for downloading files.

Participants reported that they had been unable to use LimeWire.com since October 2010 because it had been closed down and this prompted them to search for new ways of downloading files.⁸ Some had already moved on to using different sites due to bad experiences using LimeWire such as viruses (this is discussed in more detail in section 7). Participants tended to conduct their own search to find a new file sharing application rather than asking family or friends.

"When I first started downloading music, I used LimeWire which was stupid, because it gives you loads of viruses...I don't know why, I don't know the technical side but it seems these things slip through the net quite easily through the software...suddenly everything breaks down."

[Female, aged 16-17, Leeds]

A large proportion of the younger school age participants had already migrated away from P2P sites to using YouTube converters.⁹ These enabled participants to convert new and popular music singles into a format that they were able to carry around with them on their MP3 players, iPods or mobile phones, as well as storing on their computers. There was also a belief that using conversion technology as opposed to file sharing sites protected them from viruses.

As well as YouTube converters, young people used sites that mimicked the LimeWire software such as FrostWire, LimeRunner and BearShare, and a variety of others. The majority used Google.com to search for a new site and, for the younger participants especially, applications that visually resembled LimeWire were their preferred option.

⁸<http://www.limewire.com/>

⁹YouTube converters enable music videos to be converted into MP3 files which can be loaded onto portable music devices including MP3 players, iPods and mobile phones.

Less 'tech savvy' adults

The older tech savvy participants who had initially used LimeWire also followed this pattern of seeking an alternative application similar to the service they were used to using.

"My son has recently told me that FrostWire is a good replacement site for LimeWire. He has downloaded this to our PC so I think this will be the new share site for me."

[Male, aged 40+, Bristol]

For those older but less tech savvy participants who had not started file sharing using LimeWire, the application they had been introduced to by a friend or family member was the only site they used. They remained loyal because it worked for them and they had not experienced any problems such as viruses. They would only search for a new application if they felt let down by the current service and this usually meant downloading a virus which affected the running of their computer or laptop. Only a few participants in this category reported switching as a result of a virus. The majority remained with the service they had been introduced to because they had no motive to change from an application that they were comfortable with and that gave them access to desired content.

"I use BearShare because it's very simple and easy to use..."

[Female, aged 18-24, London]

More 'tech savvy' adults

The more tech savvy older participants tended to be more discriminating in their choice of file sharing application. The majority of these participants had begun file sharing using sites such as Napster and Kazaa when these first became available, with one participant using an IRC channel for a while during her teenage years.¹⁰ Having started file sharing using early applications, this group had a high awareness of the range of file sharing applications and sites available and therefore were able to make a more informed decision about the services they used.

These participants were much more likely to have conducted some research into the file sharing applications available and found a site that they felt comfortable with and that met their needs. Criteria for a desirable application included software that takes up only a small amount of memory, or an application which offers a search function as part of the service. They generally did not use sites such as LimeWire, FrostWire or LimeRunner due to a belief that downloading content from these sites was more likely to result in a virus. These participants were more likely to report using P2P sites such as PirateBay and Demonoid amongst a large range of other sites offering different types of content. PirateBay was thought to be very useful because of the high volume of content being shared via the site, which

¹⁰ IRC: Internet Relay Chat: A system of instant messaging. Users may use IRC to share files. Illegal file sharing using this method seems to be perceived by some users as relatively hard to detect.

meant users were usually able to find the material they wanted to easily. Demonoid was thought to offer a less 'risky' service because it is an invitation-only application where users have to be recommended to the site by an existing member, and therefore the content is perceived as less likely to contain viruses or malicious content.

"The first place I go is Demonoid, the one I'm signed up to, and...they usually have [what I want to download] but if not I will try isoHunt, and that usually finds it, and if I don't find it between the two it's not going to be on the internet pretty much."

[Male, 21, Greater London]

More technically knowledgeable participants also reported using other types of applications in order to access the content they wanted, although P2P remained the most popular as it was perceived to offer the widest range of content. Alongside P2P applications tech savvy participants were using or had previously used Cyberlockers such as Rapidshare and MegaUpload, and Newsgroups such as Usenet. In a few cases, participants had paid small subscriptions to use Cyberlocker sites and newsgroups in order to get 'good quality' unauthorised content quickly. However, none were still paying subscriptions to these sites as they felt that free content has increased in quality and availability, and therefore paid-for subscriptions were not seen as worthwhile. A further reason for their lack of interest in paying a subscription to share unauthorised content was a general reluctance to pay for unauthorised content. Participants generally felt that if they were going to pay for content then they would rather pay for authorised content as they will receive a higher quality product for their money than from paid-for unauthorised content.

"[I use] Usenet – a lot of people use it...it's the closest thing to the source of where the files are coming from. I've told a few people about it and they use it but they don't understand it...like Kazaa and stuff [other sites] it's just the bottom end..."

[Male, aged 18-24, Leeds]

Across the research, many participants were also using a range of online streaming sites such as Megavideo to watch content online. Some participants were also using Virtual Private Network (VPN) technology in order to trick an American streaming site Hulu.com into thinking they were in the US and therefore enable them to watch the free streaming of US TV shows. There was a fairly high level of awareness amongst the younger and older tech savvy participants about the existence of streaming sites although usage of these sites tended to be more sporadic than usage of file sharing sites. One reason for this was that streaming sites were often perceived to offer lower quality content which suffered from interruptions, pauses and periods of waiting whilst the content 'loaded' during periods of high internet traffic. For this reason it was often felt easier just to download the content through a file sharing site.

D) Content

Participants were sharing a considerable variety of types of unauthorised content online. This included music, TV series, films, games and software. The focus on the type of media varied according to age.

Younger people

Younger participants (aged 12 – 16) were particularly likely to download music singles prior to their release in the UK. The choice of music singles that young people were downloading tended to be driven by popular trends and peers and therefore they found it difficult to name specific artists, bands or styles of music that they were especially interested in. This was particularly the case for participants under the age of 16. The fact that music represented a way to remain included within their social peer groups increased the need to download songs quickly. This group found music singles quick and easy to download, and little patience was required to download a number of singles in one go.

The lack of patience to download anything other than small files was compounded by a lack of technical knowledge of how to do this. A few of the younger participants had reported attempting to download large files such as TV programmes and films and had quickly given up these attempts when it became clear that the process was not as simple as they first thought and that it would take a long time.

A very small number of the younger participants stated that they downloaded albums. These tended to be older teenagers who were starting to develop their own individual taste in music and enjoyed music for its own sake rather than being led by peers as their younger counterparts were. A few also reported that if they did wish to watch films that needed to be downloaded, then a parent (usually their father) would do this for them using unauthorised file sharing sites or applications.

Older people

Amongst older participants in the research, there was a greater variety in the type of content they were sharing which ranged from mainstream popular films and TV programmes, and the specific content depended on individual taste. Many participants liked being able to access US TV programmes before they were released in the UK, so they could 'see what happened next'.

For participants falling into the Collector typology, there was a specific interest in accessing niche content which included:

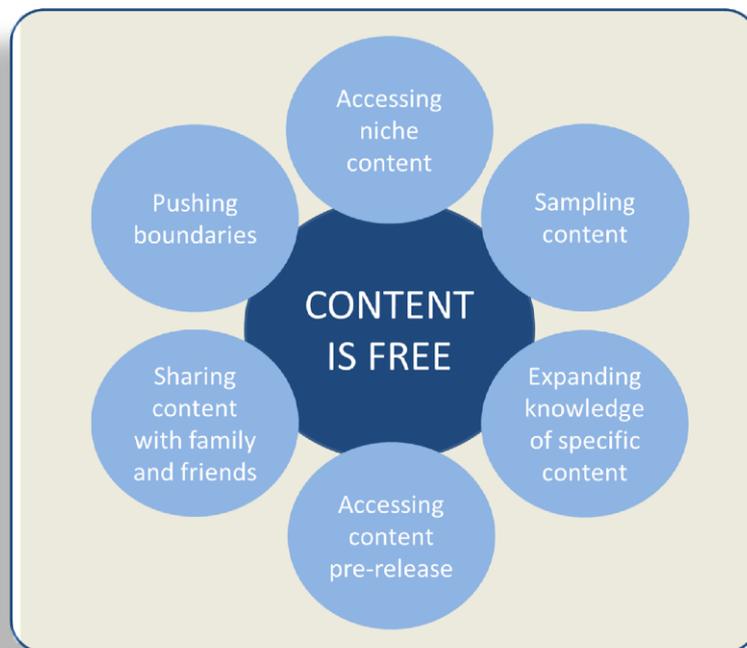
- 1970s horror films
- Opera music
- Afro-Caribbean reggae music
- Period dramas
- Audiobooks
- Specialist software (The downloading of specialist software enabled Collectors to pursue hobbies such as creating music or photography)

These participants reported that without the ability to share files online for free they would find it very difficult to find the content that they want and would be unable to afford to purchase it in the same quantity.

6 File sharing behaviour

6.1 Motivations for file sharing

The image below highlights the secondary factors that act as motivators to file sharing alongside the primary driver of cost:



The motivations for file sharing have been discussed in the previous section but we will use this section to clarify these in more detail. The motivations for file sharing varied by file share typology and these are expanded on below.

A) Generation File-share

Generation File-share were strongly motivated to download music singles in order to keep up with their peer group. Although many of them stated that their main reason for downloading content online was because it was free, this appeared to be a stock response. Accessing content through YouTube Converters and file sharing applications appeared to represent the normal route to accessing music that these young people had grown up with. It was not a considered behaviour and therefore they did not expect to have to pay for music. Many reported that they found it strange that anyone would pay for music given that it is available free online and they were scornful of friends who paid for music through sites such as iTunes.

"We've got this friend [...] and he always buys his music through iTunes and it's really weird because he pays for music that you can just get for free from the internet."

[Male, aged 12-15, Greater London]

For Generation File-share, the cost of accessing music singles via paid-for sites such as iTunes was prohibitive. Many thought that accessing music via iTunes would cost them around £1 per song which they stated was unaffordable. Many discussed how much they would have to pay to download the number of singles they were accessing for free via a paid-for site. Most were downloading 6 – 10 singles for free per week and reported that this would cost between £24 and £40 per month and they would not be able to afford this. Although some occasionally used paid-for sites like iTunes, this was generally when they had been given vouchers by their parents or other family members, usually on their birthdays or special occasions such as Christmas.

B) Self-serving Consumers

For the self-serving Consumers, the ability to access content for free was the main motivation behind the file sharing of unauthorised material online. As well as being able to access content for free, file sharing enabled access to popular media such as Hollywood blockbuster films that had not been released in the UK and American TV series episodes before they aired on UK TV channels.

"It was the novelty of not having to pay for anything, any song that I wanted, any song that I could think of."

[Female, aged 24-30, Leeds]

Their motivations for file sharing were not as strong as Generation File-share, Collectors or Cybertechies as they were not as passionate about the content they were downloading.

C) Collectors

Collectors were more likely to state that file sharing enabled them to sample a wide range of content that they could not access elsewhere. They felt that it would be difficult to access the variety of content without file sharing because it would be cost prohibitive, or because the content they wanted was niche and difficult to find without the assistance of file sharing sites. In fact, a number of participants reported that the ability to sample content online and expand their knowledge had led them to purchase more content than they otherwise would have.

"The main reason I download stuff is because I'm impatient and I want to get it before it's released, or it's bands that I haven't heard before and I don't want to go out and buy it if it's not good and it's just going to sit on my shelf gathering dust."

[Male, aged 18-24, Leeds]

Collectors also reported that they liked to watch films and American TV series before their UK release.

D) Cybertechies

One of the main reasons Cybertechies were motivated to file share was because it allowed them to provide friends and family with new content. They shared the content with friends and family either online or through a number of offline methods such as sharing via USB or

external hard drives, or more traditional methods of ripping and burning onto CDs and DVDs. Participants stated that file sharing meant they were able to share content with friends with similar interests or suggest content to family members and then share it with them online or offline.

For Cybertechies, the ability to share content with family and friends was important, although this group were also motivated by the challenge of file sharing and the idea of pushing boundaries. The challenge consisted of downloading high quality unauthorised content at the expense of an industry perceived by many participants to be greedy, and finding new ways to download content through keeping up with technological developments.

Overall, although many participants stated that the cost of purchasing the same amount of content that they downloaded for free would be prohibitive; this was especially the case for Collectors and Cybertechies who would be unable to afford to pay for the high volume of the content they were downloading for free.

6.2 Awareness and understanding of file sharing

A) Generation File-share

Generation File-share were typically downloading or file sharing music singles in low volumes whilst the older teens (aged 16-18) were likely to have started infrequently downloading albums. The majority had a naïve understanding of the file sharing process, with most unaware that they were uploading material to the internet when they used peer-to-peer file sharing sites. Some reported that they were aware that they uploaded files from their computer but they found it difficult to explain this process or understand the implications of uploading material.

B) Self-serving Consumers

Self-serving Consumers were likely to have only a basic understanding of the peer-to-peer uploading process with some having no understanding and being unaware that they were uploading files when using these sites.

"I don't think I've ever really thought about it [uploading]...I don't know how that would work personally...I suppose because the files are already there for me to share aren't they? I've never uploaded them in the first place; I've just searched around on that particular website."

[Female, aged 40+, Leeds]

The majority of these participants, even those who had some awareness that they were uploading content when they used peer-to-peer sites, were unaware that they could prevent these uploads. Those who understood that they uploaded material when they used these sites accepted this in return for continued downloads.

C) Collectors and Cybertechies

The Collectors and Cybertechies were fully aware of the peer-to-peer file sharing process. The majority actively allowed content to be uploaded by others using the peer-to-peer application, as they felt that should 'give back', or reciprocate to other file sharers, by allowing others to upload files from them. Not only were these participants sharing / uploading files consciously but they were doing so on a frequent basis, with many downloading and uploading large volumes of content daily.

6.3 Uploading of original material

Across all typologies it was uncommon for participants to report that they had uploaded original content. Where a few participants reported that they had uploaded original content for others to share they tended to be of the Collector or Cybertechie typology. The few participants who stated they had uploaded original material in the past reported that this had tended to be niche material that they felt others with similar interests would appreciate having access to. For example, one person had uploaded a niche opera recording to his opera newsgroup forum as he felt that he should give back to those who had enabled him to access desired content in the past. Many reported feeling that there was little point in uploading anymore given the wide availability of content online.

"I've ripped a few DVDs I haven't seen online in the past but I mean there's so many people doing it now [that] by the time I've got stuff now it's already been uploaded...back a long time ago when I first started uploading stuff...you could upload, especially UK DVDs, you could rip the DVD into an AVI and upload it but I haven't done it recently."

[Male, aged 24-30, Bristol]

Uploading original content was uncommon and perceived to be highly technical and difficult by the majority of participants. Nearly all research participants only uploaded what they had previously downloaded using file sharing sites – whether they were aware of this or not.

6.4 Attitudes towards uploading

A) Generation File-share

The majority of Generation File-share had never considered where the content they downloaded had originated from. As many did not understand the peer-to-peer process and were unaware that they were uploading, they assumed that they were downloading content from a website as opposed to downloading from other users of the application. For this group, because file sharing was perceived to be the way that everyone accesses music, they have never questioned where the content comes from. They see uploaders as altruistic and benevolent people who made content available online for others to be able to download and found it difficult to say why someone would upload material online as they saw no benefit to doing so.

"I didn't know that you're letting other people upload files straight off of your computer when you use LimeWire..."

[Male, aged 12-15, Greater London]

B) Self-serving consumers

Self-serving Consumers tended to see themselves only as downloaders or sharers, and disassociated themselves from people who upload original material. Resultantly, uploading was seen as something that other people do; although they were in fact uploading content online. This group reported that the main benefit of people sharing their files online meant that everyone could continue sharing and accessing music for free. However, they found it difficult to identify any benefits from being the person who initially places content online and tended to feel that people who upload do it just for altruistic purposes.

"I've never uploaded anything; obviously it's just the downloading. I've never had anything to upload. Most of the stuff I've got is from there [the computer] so it's already on [line]."

[Female, aged 24-30, Leeds]

C) Collectors and Cybertechies

Collectors and Cybertechies actively allowed people to share their files as they felt it was hypocritical to download files and then prevent other people from downloading from them. Some reported that they 'throttled' (decreased) their upload speeds if this started to affect the running of their computer. Many were monitoring the files they were sharing with others so that they could tell how many people had downloaded them. When they felt that a particular file had been shared with enough other application users they removed it in order to create more memory space on their computers.

They were not uploading original material as they believed that content was so widely available that it was unnecessary. Combined with the perception that uploading of original material has become obsolete was the feeling that uploading original content was "frustrating" and a "hassle". The few who reported that they occasionally uploaded niche content described the process as time consuming and difficult. It was also seen as an activity that had no personal benefit flowing from it and the only reason participants had done it previously was out of a sense of altruism towards other online users who have similar interests.

6.5 File sharing community

One of the aims of this research was to explore the existence of file sharing communities and to establish whether any of the participants felt they belonged to an online file sharing community. The research found very little evidence of participants interacting with other file sharers online. The majority of participants actively avoided talking to other file sharers through forums and if they needed help with technical problems or advice they tended to ask friends or family with better technical knowledge.

Younger participants were particularly wary of interacting with people they did not already know in any type of online context including file sharing applications and forums, social networking sites and through online gaming. They reported that they were often told about

the dangers of interacting with strangers online and therefore saw it as something to avoid. A large proportion of the young participants reported receiving messages via social networking sites from adult men they had never met, which compounded their concerns about interacting with strangers online. The older participants, although less concerned about the dangers of interacting with people online, also felt that there was little point in doing so. At most, some of the more tech savvy participants would rate or comment on download links to let other users know whether a specific file was good quality or not.

A very small number of participants had posted questions in forums asking for the solution to a technical problem they were having but this was reported to be a last resort and only done if they were unable to find the answer by searching other forums. Participants disliked posting in forums because they reported that discussions ended up in moral arguments about the legality of their activities when all they really wished to do was find the answer to their problem. Alongside this was a perception that in recent years posting questions had become less necessary as the answers were so widely available across the internet. Two participants also noted the usefulness of YouTube instructional videos showing viewers how to carry out certain activities.

One participant was a member of a newsgroup dedicated to downloading Opera and although he was involved with various online forums (such as one dedicated to new technology) he did not participate in discussions about file sharing or about the Opera music itself with other newsgroup users. He reported that it was simply a space for people to share files and not to interact. This implies that the sense of community relates to the content itself as opposed to interaction based upon content.

"You just post links there [on the newsgroup]. There's no discussion. It's just a place where information is stored."
[Male, aged 31-39, London]

7 Legal alternatives

Although the focus of this research was to explore the unauthorised channels used to access content online, participants were also accessing content through a variety of legal channels.

A) Music

For younger participants the use of authorised alternatives to file sharing sites and applications was rare, as they represented the normal way to access content. A few sporadically used iTunes if they were given vouchers on special occasions but would revert back to sharing sites when their money ran out. The main alternative to file sharing applications was YouTube.com where they would watch new music videos prior to their release in the UK and then use conversion technology to convert the music video into an MP3 file to download. However, there was confusion about whether accessing videos through YouTube and then converting them using a YouTube Converter was legal or not.

Older participants were more likely to use legal channels to access content and this included the heaviest and most frequent downloaders. Apart from YouTube, there were many different authorised channels being used to access content and in many cases participants were confused as to the legal status of the applications.

Spotify was accessed by some participants but only one was using this on a frequent basis during her working hours. She was happy to accept listening to adverts in return for being able to listen to new music.

"I don't really feel the need of having the music with me. I don't need to own it; I just want to listen to it. I've got CD's full of music from ten years ago that I don't listen to very much and it just takes up space so I prefer to stream it."

[Female, aged 24-30, London]

A few of the older participants reported sporadically using iTunes although older participants were more likely to report purchasing music or film in hard copy from sites such as Amazon.com or Play.com (amongst others) when they did decide to purchase the content.

B) TV

A few of the older participants were using catch up TV such as iPlayer (BBC) or On Demand (Virgin) to watch TV series but some felt that these services did not always repeat the programmes that they wanted to watch or retain the content long enough for them to watch it, so they tended to download the series anyway. As noted previously, a few people were using VPN technology in order to access Hulu.com based in the US which they described as similar to the UK iPlayer. There was some confusion about whether using the VPN technology to disguise their location was legal or not.

C) Film

For older participants films were generally not accessed through legal channels. A small number of participants reported using Lovefilm.com but many had stopped their subscriptions when they found that either they did not have time to watch the films or the service did not

provide as many films per month as they would have liked. Only one person had tried using Lovefilm's new direct streaming channel on a previous occasion. A few had also purchased films through their TV channels or through Xbox marketplace.

A small number of participants were sporadic users of Tesco's video rental service which they liked as they could pick up and drop off the film when shopping. They would also buy DVDs when in Tesco as they tended to offer older films at low prices which made the purchase seem more worthwhile than when paying for it full price.

Many participants reported that they went to the cinema relatively frequently and some reported going at least 3-4 times per month but, for older participants, when they did choose to purchase films, it tended to be in hard copy.

D) Games

Although not enjoyed by all participants, gaming was important for a number of the male participants. Games were almost always purchased through legal channels regardless of age or technological expertise for two main reasons.

Firstly, virtually all participants who enjoyed gaming owned a PlayStation 3 or Xbox 360 console which enabled them to play online. Participants were concerned about having their console shut down by Sony or Microsoft if these companies detected that they were playing with chipped consoles or unauthorised games and therefore they did not use their consoles in an unauthorised manner. There was also a feeling that the service they received from their games and consoles was of a good enough quality that they were prepared to pay for it.

Secondly, unlike music, films or TV series, games were played by users frequently. The most popular games played by all of the 'gamers' in our sample were different versions of 'Call of Duty' which was played on Xbox and PlayStation consoles. Although games were priced much higher than other types of content, users felt that the number of hours that they spent playing them meant that they were prepared to pay a premium for them. Games were seen as the least disposable form of content and therefore the content that participants were prepared to pay more for.

The majority bought games online although a few of the younger participants reported downloading them via their Xbox or 360 consoles.

"I buy all my stuff for my PlayStation; all my games I buy for it...because I want to play online. And I don't mind paying £40 for a game because of the amount of use I'll get out of it...I don't want to spend £20 on a film that I'm only going to watch once."

[Male, aged 24-30, Bristol]

8 Perceptions of risk

8.1 Risks

Overall, participants perceived very few risks associated with file sharing regardless of their age, level of technical knowledge or frequency of sharing files. The main risk was the potential for technical problems rather than concerns about getting caught and getting into trouble.

A) Viruses

The top of mind risk for many participants was viruses, although this was mainly amongst those who had only basic technological knowledge.

For the less technologically savvy participants both young and older, the risk of their computer getting a virus as a result of downloading unauthorised content was seen as high. Many stated that this had happened to them in the past and that it had affected their file sharing behaviour. The majority had decided to change the file sharing application that they used to another application deemed more trustworthy, although participants found it difficult to expound on the reasons behind this new-found trust. The main reason appeared to be that they had not had a bad experience with the new application and therefore they made a decision to trust it until the point that they were let down.

"The risk of downloading from a source and you don't know where it's coming from, you've got a user name but...they could attach anything to it, a virus or something..."

[Male, aged 18-24, Leeds]

A number of the less savvy participants who had had a negative experience with their file sharing application had adopted coping strategies in order to guard against potential viruses in the future. The most popular strategy was amongst those with access to more than one computer in the household as they were able to then use their old computer to continue file sharing without the risk of downloading viruses onto their new machine.

A number of participants began using anti-virus software after previous bad experiences and usually after being advised to do so by tech savvy family members or friends. They tended to rely heavily on anti-virus software which they perceived offered almost unassailable protection against viruses.

Viruses were not perceived to be a high risk by the tech savvy participants as the majority felt they had the knowledge to fix these themselves. In the worst cases participants reported having to wipe their hard drives or rebuild their machines. Having to resort to rebuilding or wiping the machine was seen as a time consuming and frustrating hassle, but not as a risk, because despite the frustration caused they were still able to fix the problem relatively easily themselves.

"I haven't recently [had viruses] but probably because I do this process of cleaning everything off and putting it all back on again."

[Male, aged 18-24, Greater London]

The tech savvy participants tended to use strategies to minimise the risk of downloading viruses in the first place as opposed to the less tech savvy participants who appeared to try to guard against what they perceived to be the inevitable downloading of viruses. Tech savvy participants, as well as being more discriminate in the file sharing applications they used, were also more disposed towards using ratings systems that rated the quality of the content on offer for download. These participants reported that the applications they used offered star ratings where other users would rate the downloads on offer. These ratings gave participants a way of judging whether they were at risk of a virus from downloading particular files, albeit a slightly unsophisticated method that was not completely effective. Where participants found another user offering good quality files that resulted in no negative implications when downloaded, they then had a tendency to explore the other files that the particular user had available. The fact that the files downloaded from the user in the first instance were safe resulted in an implicit level of trust in the other files they had available.

B) Junk files

Junk files were top of mind for participants across the research as one of the main negative consequences resulting from downloading unauthorised content.¹¹ Although not perceived to be a risk in the way that viruses were (as junk files do not damage computer equipment), junk files featured highly as a negative consequence of using file sharing applications. Downloading junk files was felt to be highly frustrating and time consuming and this was the case across the research, regardless of technological knowledge or interest in content. The only participants who had any mechanism for protecting against this were the tech savvy participants who used the ratings systems, although these were also vulnerable to being ineffective as a means of judging content type.

C) Hacking

Although participants mentioned the potential for their computer to be hacked or their details stolen as a potential risk resulting from file sharing of unauthorised content, this was not something they were overly concerned about. The younger and less tech savvy participants placed a large amount of faith in their anti-virus software and believed it would protect their computer against malicious infiltration. Participants using old computers purely for file sharing were also unconcerned about hacking. They believed that if their old machines were hacked, the hackers would not be able to access personal details as they had removed these from the machine. The tech savvy participants were also generally unconcerned about the potential risk of hackers infiltrating their personal information although this was still viewed as a greater risk than that of being caught. These participants generally felt comfortable with being able to remove malicious threats from their computers and resultantly were not worried about hackers.

¹¹ When a user downloads a 'junk' file this means they have downloaded a file they thought was something different. This can include downloading films that the user thinks will be in English and turn out to be in a foreign language, or downloading a completely different film to the one they thought they had.

D) Getting caught

Getting caught was not identified as a risk from file sharing. The majority of younger participants and less tech savvy older participants were confused about the legality of their file sharing activities. Some mistakenly believed that their file sharing activities were legal and therefore were unconcerned about being caught. This was usually because the file sharing sites they were using contained declarations about being '100% legal' and this caused some participants to believe that they could lawfully share unauthorised content using these sites (discussion of legality is expounded upon in section 8).

For other young people and less tech savvy older people, although there was confusion around the legality of their activities, there was a feeling that they may be doing something 'illegal'. However, this realisation did not translate into a feeling that they were at risk of being caught. The older tech savvy participants who were downloading and uploading on a frequent basis were more likely to report getting caught as a risk but felt that this was generally a very low risk and highly unlikely to happen to them or to anyone that they knew.

E) Attitudes towards risks

Participants reported that friends and family members participated in file sharing and this knowledge had the effect of normalising file sharing as an activity. This was especially the case with younger participants for whom file sharing was the normal route to accessing music. The normalisation of file sharing resulted in a feeling of safety and protection against any potential risks. The less tech savvy participants were also more likely to believe that their activities were anonymous or more difficult to trace than those with higher levels of technical knowledge and this, coupled with the perception that everyone does it, dispelled any feeling of risk.

"I don't think they'd be able to do it [catch people], as there are too many people doing it for them to target."

[Male, 22 years old, Leeds]

There was also a strong belief amongst participants that the volume and frequency of their own file sharing paled in comparison to that of others. This belief resulted in the feeling that they were highly unlikely to be targeted for their own activities. This was the case across the research including amongst those who were frequently sharing large volumes of unauthorised content and were aware that this was, to some extent, unlawful.

"I know I can get prosecuted for downloading music but that's if [you are] downloading at an extreme volume..."

[Male, 21 years old, Greater London]

Confusion arose in the distinction between downloading and uploading. Many thought that as well as being more likely to get caught for heavy and frequent file sharing, people who uploaded original content online were also placing themselves at a greater risk. This belief enabled the majority of participants to distance themselves further from the risk of being caught because they did not see themselves as uploaders although they were in fact uploading content. Even the tech savvy participants, many of whom acknowledged that



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uploading content through peer-to-peer networks still constituted uploading, believed that those who uploaded original content were much more at risk as they had initiated the process and enabled others to share the content.

Overall, getting caught was not thought to be a risk associated with file sharing. However, there was a prevailing view that file sharing exposes your computer to viruses and other malicious content, and this was where the risk was thought to lie.

9 Awareness of legality and consequences

There was considerable variation in levels of awareness of the legality of online file sharing, and of the potential consequences of getting caught. Younger people and those with a lower level of technological expertise tended to have the least insight into the legality and consequences of file sharing. More technologically-savvy file sharers tended to be aware of the legality of file sharing. However, the extent to which they regarded their own behaviour as illegal varied.

Younger and less technologically savvy

Younger file sharers and the less technologically savvy tended to have the least insight into the file sharing process from a technical point of view, and this naïveté extended to their knowledge of the legality and consequences. Younger people in particular were generally unaware that file sharing is unlawful. Although some of the older, less savvy participants reported a suspicion that the activity was not completely legal, they did not dwell on this and pointed to the large numbers of people that file share in justification.

There was little or no understanding amongst this group of the distinction between uploading and downloading, and many were uploading with no awareness that they were doing so. There was therefore no link made between uploading and legality of file sharing.

These naïve or less savvy participants tended to associate legality with applications and sites, regarding some as legal and some as less legitimate. Therefore, they reasoned, they could avoid certain applications in order to file share legally.

This group had little or no awareness of the consequences of file sharing, and for that reason tended to assume that these would be serious. However, they did not regard these consequences as likely to apply to them, as they did not see themselves as sufficiently prolific file sharers.

"None of my friends have been prosecuted...it's only really hearsay, I don't read the papers or watch the news really...I have heard of people getting prosecuted for extreme amounts of music...maybe it's scare tactics."

[Male, aged 18-24, Greater London]

Older and more savvy

Older, more experienced and savvier file sharers tended to have a good awareness and understanding of the illegality of file sharing. They realised that file sharing was illegal, but tended to draw on a range of arguments to justify their behaviour (see section 9).

"I'm under no illusions that you can be prosecuted for downloading stuff because it's kind of like fraud...piracy. The punishment seems to be outweighed by the rewards you get from doing it though, especially since no-one ever gets prosecuted really."

[Male, aged 24-30, Bristol]



In contrast to the less technologically savvy, this group understood that the legality of file sharing hinged on the activity itself, and not just on specific sites or applications. They were also aware of the file sharing process, and understood that they were uploading as well as downloading when using peer-to-peer sites. However, the majority did not make a distinction between uploading and downloading in terms of legality. In addition, they had little awareness of the consequences of being caught. In any case, they regarded being caught as highly unlikely and similarly to the less savvy participants, pointed to the ubiquity of file sharing to highlight the low likelihood of getting caught.

It was only the very savvy experts who distinguished between the consequences of uploading and downloading:

"It's potentially dodgier uploading stuff online because there's audit trails and stuff running constantly...your IP address and your PC...everything's being recorded by your ISP more than likely along with, I think, the American Government [monitor] every P2P network and torrent, as far as I'm aware."

[Male, aged 24-30, Bristol]

10 Justifications

The younger participants and older less tech savvy participants who were sharing files in low volumes had a tendency to base their justifications upon the idea that it is 'normal' to file share and that high volume users were those committing a serious offence. This normalisation of file sharing amongst peers, and the perception that many people access music in this way led them to feel that they were not committing a serious offence. The older participants also dismissed their own low volume file sharing as light usage and therefore relatively acceptable compared to those who were file sharing heavily. As the older group continued to purchase authorised content in addition to downloading unauthorised content they felt that this further excused their behaviour as they were still contributing to industry. They rationalised that the small amounts of content they did still download would not have a negative impact upon the large profits made by industry.

"Pretty much everyone I know does it...even people who barely know how to turn their computer on, because it's just so simple to do. You don't have to be a technical expert to file share..."

[Male, aged 24-30, Bristol]

The majority of participants who were aware of the unlawful nature of their activities also tended to offer justifications based upon a disassociation from physical crime, with participants pointing to the distinction between breaking into a car and stealing a CD versus downloading an album to download at home. Participants also drew distinctions between physical and digital piracy, and physical piracy was perceived to be a much less acceptable form of piracy.

"I don't download movies and go selling them at school."

[Male, aged 12-15, Greater London]

"I know I can get prosecuted for downloading...but there's people downloading every day and putting it on discs and selling them."

[Male, aged 18-24, Greater London]

For the tech savvy older participants, there were also a variety of more sophisticated justifications put forward in defence of their activities with many having developed their own moral stance in favour of file sharing.

Many of the participants who fell into the Collector typology justified their heavy volume file sharing on the basis that it allowed them to sample material and judge whether it was worthy of a purchase. These participants felt that without file sharing they would not be able to listen to new content and expand their knowledge and that this would decrease the amount they currently spend.

"If I watched it and I liked it and I want to watch it again then I'll definitely buy it...All the research they are presenting [shows that file sharing] is helping people find out about [new] things and then buy it eventually."

[Female, aged 24-30, London]

One participant reasoned that 'Avatar' had been the highest grossing film of all time to date, yet was also the most downloaded via file sharing applications. For him, this was evidence behind a growing trend of 'try before you buy' as opposed to simply avoiding paying for content.

One participant felt very strongly that industry unfairly makes large profits from mass duplicating content and selling it to the public at inflated prices. In addition to this he felt that it was unfair that the industry made money out of bringing out old films in new formats as technology advanced. He gave the example of the film 'Bladerunner' which he had paid to see in the cinema several times and had purchased a number of times in several different formats including video, DVD and Blue-ray. He felt that he should be entitled to download a copy of the film using a file sharing application as he had already paid for it several times over.

"Should you pay time and time again for duplicated media?"

[Male, aged 31-39, London]

A number of the tech savvy participants justified their behaviour on the grounds that they tended to pay for films and music by independent artists as these were seen as deserving of help and assistance, whereas major corporations did not need support in the same way.

"A lot of bands I listen to are up and coming artists and I think it's good to support their hard work whereas...most of the movies I will watch...there's a lot of money in there [so] I don't feel that bad about it."

[Female, aged 24-30, London]

A small number of participants maintained that the record industry was ten years too late in trying to prevent people from file sharing. They felt that when sites like Napster and Kazaa had begun, the industry had had a chance to develop high quality, legal file sharing sites that allowed the public to access music at a reduced rate. There was a feeling that if a file sharing application had offered paid-for, high quality content at low prices at this time then legal file sharing would not have taken off as people would have had access to good quality content without risking downloading viruses or other malicious code. For these participants, paid-for sites represented 'too little too late' and they believed that file sharing has become so entrenched that it will be very difficult to move people onto legal alternatives that require payment.



C) Most committed

This includes the most technologically savvy, such as Collectors and especially Cybertechnies, and those with a good knowledge of the legality of file sharing. The key hurdle in deterring this group is their scepticism about the likelihood of detection, and the difficulty in encouraging them to believe in the credibility of messages about this. This group would be likely to require evidence of effective detection and prosecution, beyond that which could be offered through traditional media campaigns. Measures such as highlighting of local examples would be more credible for this group. In addition, their strong reliance on technology would mean that penalties relating to their ability to access the internet would be strongly deterrent.

12 Appendices

12.1 Full sample structure

Adults

Age	Gender		Socio-economic group				
	Female	Male	B	C1	C2	D	E
17-18	1	4	1	2	2		
18-25	3	7	2	3	3	2	
26-34		3		1	2	1	
34-45	2	2	1	1	1	1	
45+		2		1			1
TOTAL	24		24				

Children and young people

Age	Gender		Socio-economic group				
	Female	Male	B	C1	C2	D	E
12		2	2				
13		4		1	3		
14	1	3		3	1		1
15	1	5	1	3	2		
16	2	5	4	1	1		1
TOTAL	23*		23*				

*Please note: One 16 year old respondent requested to do the interview on their own rather than in a pair.



12.2 Desk review: applications and sites reviewed

µTorrent	http://forum.utorrent.com/
Facebook 'fan pages' of piracy websites	www.facebook.com
File Sharing Help	http://www.filesharinghelp.com/internationalforums/
File Sharing Talk	http://file sharingtalk.com/
isoHunt	http://ca.isoHunt.com/forum/
MegaUpload Forum	http://www.megauploadforum.net/
Pirate Party	http://www.pirateparty.org.uk/forum/
SuprBay	http://forum.suprbay.org/
Slyck	http://www.slyck.com/forums/index.php
The Scream	http://www.the-scream.co.uk/forums/
Torrent Box	http://forums.torrentbox.com/
Torrent Freak	http://torrentfreak.com/
xkcd	http://echochamber.me/

12.3 Desk review: glossary of terms

Chipping / Cracking: 'Chipping' or 'cracking' is the process whereby a piece of technology is altered to enable it to do something it was not able to do before e.g. By chipping a games console it allows the user to play unauthorised versions of games.

Cloud computing: Cloud computing is a general term for anything that involves delivering hosted services over the Internet.

<http://searchcloudcomputing.techtarget.com/definition/cloud-computing>.

Cyberlocker: A website that allows users to download content (sometimes for a fee) from a central server rather than directly from other users as with peer-to-peer networks. Examples include RapidShare, MegaUpload/Megavideo and Mediafire.

Digital Rights Management (DRM): A system that allows publishers of content to place limitations on how that file is used. For example, DRM can be used to prevent files being downloaded legally and then shared illegally with others.

File Transfer Protocol (FTP): An FTP allows users to transfer files over the internet. It is normally used to download a file from a server using the Internet or to upload a file to a server

Internet Protocol Address (IP Address): A numerical code unique to the user's computer that is logged by any website the user visits and, in theory, can also be used by authorities to detect illegal file sharing.

Internet Service Provider (ISP): A company that provides access to the internet.

Internet Relay Chat (IRC): A system of instant messaging. Users may use IRC to share files. Illegal file sharing using this method seems to be perceived by some users as relatively hard to detect.

Jailbreaking: Jailbreaking is the process used to break open an iPhone, iPod or iPad in order to free the phone from limitations imposed by Apple which allows the user modify the device using 3rd party programs. Jail breaking voids the users' warranty as jail breaking software is not authorised by Apple.

Newsgroups: Are online discussion systems that offer similar functions to online forums, although are considered distinct (not least because they are accessed via an application such as Microsoft Outlook rather than an internet browser). One of the early features of the internet, newsgroups are popular with some file sharers as they are perceived to offer a secure method of file sharing.

Peer-to-Peer (P2P): Any system that allows users to share and download files directly from other users and not via a central server.

Proxy: Connecting via a proxy is a way of connecting to a remote server that masks the file sharer's IP address, and therefore makes them harder to detect.



Seeds/Leeches: A seeder is someone who makes content available online through peer-to-peer sites for other users to download. People who download content from seeders are known as leechers.

Torrent: 'Torrenting' is one of the most popular methods of P2P file sharing. If a torrent user wishes to download a file such as a film or album, he/she generally searches an indexing site such as the Pirate Bay or isoHunt. These allow users to download a 'torrent' for this file. The torrent is a small file containing protocols for downloading the main file itself. The torrent is opened by a client application (such as µTorrent) that the user has previously installed on his/her computer. The client then begins the download of the main file. The download of the file commences through connecting to other users who have the file stored on their computer (P2P file sharing). A downloader generally downloads only a small segment of the file from any one other user.

Virtual Private Network (VPN): VPN allows users to connect remotely to a private network using their internet connection. The advantage for file sharers is that VPN makes it difficult for authorities to detect their activities.

12.4 Respondent case studies

Gen F-S: Chris and James, 13, London

Passions: Call of duty, American TV (Family Guy), Facebook, YouTube, Google.

Using: Limewire initially, now Frostwire, Pirate Bay, YTC and 'watch movies free online'.

Behaviour

Their focus is socialising with friends which they do through gaming or going to the cinema. Music is also important to them. They watch TV but only American programmes.



Downloads

Downloading music singles and occasional albums.

Infrequent low volume downloads.

Uploads

Unlike most Generation File-share they are aware that uploading takes place but unaware of the implications.

Attitudes towards file sharing

They are passive uploaders who, like many people their age, use file sharing as the normal route to access music.

They claim they do it because it's free but in reality it is not something they have considered; **it's just how they get media.**

"Frostwire seemed easy to work, like Limewire."

"I don't know about it, it just happens."

Perception of risk

Viruses are a risk (but only temporary deterrent). They think it may be 'illegal' but they are disassociated from the risk and any consequences.

Motivations

They began file sharing after a policeman gave a talk at their school about the risks of file sharing. Had not heard of it before this (which is unusual initiation for Gen FS). They get the latest music before other people and before it appears in the charts as by that time it is old news.

Potential deterrents

Warning letter.

"I don't download movies and go selling them at school."

Self-server: Claire, 35, Bristol

Passions: She has two young children and works part time. She liked American TV series (like Desperate Housewives).

Behaviour

She likes popular media which she gets from a range of sources including Amazon, Pay TV and catch up TV and DVD rental.

Downloads

Uploads

Infrequently downloads US TV series so she does not have to wait to see what happens, and chart music to play in her car.

She passively allows uploads and is unaware she is able to stop people sharing her files. Resultantly, she does not see herself as an uploader.

“I use tvtorrents.com...like this one because it seems to have it all and it is quick and easy.”

“I never upload from scratch. I download for free and then share it with others.”

Motivations

Her main motivation is that it is free and quick and allows her to watch TV shows ahead of their UK TV release. She has also found that she is able to get children’s TV shows from when she was little that were shown in her native Norway which means she can show them to her children which she likes.

Using: Tvtorrents and Frostwire set up by her brother.

Attitudes towards file sharing

Feels she isn’t doing much wrong because she is an infrequent file sharer. She feels the volume she takes is ok given how much money industry makes and how expensive music is.

Perception of risk

Viruses are high risk. She uses an old computer to download as she does not want to risk viruses on her new one. The risk of getting caught is low for her.

Potential deterrents

Cheaper content / increased difficulty / warning letter.

“I would stop filesharing if music and TV was a bit cheaper...”



Collector: Saskia, 28, Leeds

Passions: 1970's horror films, alternative music, gigs, Roller Derby, cinema, socialising with friends.

Behaviour
Her heavy file sharing activity led her to buy a Nettop computer which she felt would limit energy used through file sharing that her previous desktop used. She shares files "constantly" during the day and at night.

Downloads
Constantly downloading media which ranges from niche and alternative to mainstream TV series (Grey's Anatomy).

Uploads
Actively allows uploads on 1:1 basis to 'give back' but throttles upload speed. As her computer is always on then people are always uploading from her.

"If I watched it and I liked it and I want to watch it again then I'll definitely buy it."

"It's kind...if people stopped sharing afterwards [downloading] then no-one would be able to download."

Motivations
She uses file sharing to sample media and will then go and buy it if she likes it, especially where independent artists and films are concerned. She feels that she would purchase less if she was unable to file share.

Using: Pirate Bay (with Utorrent) and Usenet (friends subscription). Has used IRC (growing up in Poland) and also Demonoid.

Attitudes towards file sharing
She feels justified in file sharing because she will buy the content if she likes it. Resultantly, she feels that file sharing drives industry as opposed to destroying it. She believes that research in this area backs up her beliefs.

Perception of risk
She is aware of the Digital Economy Act and tighter restrictions but is unsure how this may affect her. She felt protected as she had heard that her ISP were against the Act.

Potential deterrents
Free advert driven content. Legal deterrents would have to be very serious. She would not be deterred by warnings from ISP.

"I would try to change ISP and encode my connection. It would not stop piracy in anyway."



Techie-Collector: Phillip, 37 years, London

Passions: opera, Apple technology, stately homes, sci-fi, period dramas.

Using: Opera newsgroup, Demonoid, Xtorrent (paid for), Dropbox, MobileMe, Rapidshare.

Behaviour

His computer is always on and is usually downloading something. Likes software and hardware: recently jail broke his iphone and uses a range of sources to keep up with new technology: Mac forums, Gizmodo, Redmond Pie, TED.

Attitudes towards file sharing

He feels that industry is very wealthy and therefore feels no guilt about downloading content, although he would think twice about downloading an independent. He has paid for a lot of content in duplicated form anyway (cinema, video, DVD, TV package) He feels that industry needs to adapt to file sharing going forwards.

Downloads

He downloads at least 4 films per week along with US TV series, pre UK release Music, opera music and audio books.

Uploads

Is fully aware of the uploading process and occasionally uploads niche content such as opera performances he has heard.

“Most of my friends think of me as a geek.”

“I like to put things up that are probably not out there...specialist taste.”

Motivations

He has a passion for films and aims to watch a film a day. He likes introducing family/ friends to new things and shares files via FTP or hard copies. Although he goes to the cinema a lot he feels it is overpriced which partly drives his downloading habits.

Perception of risk

Considered low risk activity. Received letter from ISP for going over download limit with £5 fine; not considered a deterrent. Not worried about viruses as Mac user.

Potential deterrents

Loss of internet.

“Monty Python have their entire back catalogue on YouTube and their sales went up.”

Cybertechie: Howard, 28, Bristol

Passions: Cracking new technology, outdoor survival activities, Bear Grylls gaming and motorbikes.

Behaviour

He enjoys exploring and finding ways to 'get around' new technology. He uses the internet to find out how to crack technology such as iPhones and finds YouTube video instructions useful.

Downloads

He is a heavy but sporadic downloader and a lot of the material he downloads he gives to family and friends.

Uploads

He throttles his upload speed as he feels constant sharing is unnecessary due to widespread availability of content online.

"It wouldn't really bother me if I lost all my technology today ...I'd buy the odd bit here or there but I wouldn't buy the amount of films I'm downloading. I'd just go without."

Motivations

Motivated by free content, boredom and by the challenge of exploring new technology. His file sharing activities fluctuate depending on what else is going on in his life. Being able to download content is not a priority for him.

Using: Anything. He used to subscribe to newsgroups but as file sharing has spread he now uses Google to search for content

Attitudes towards file sharing

Feels the industry should have offered a paid for file sharing service ten years ago. If they had he would still be using it as he would get quality assurance but he feels they blew their chance. He also feels that films being produced these days are so poor that he is justified in not paying for them.

Perception of risk

Risks were very low. He felt that it was unlikely he would get caught, especially as he did not upload original material

Potential deterrents

Difficult – not a lot would stop him apart from jail. He would be driven by the challenge of finding new ways to file share.



"I'm under no illusions that you can be prosecuted for...piracy. The punishment seems to be outweighed by the rewards though...especially since no-one ever gets prosecuted..."



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