

An ethnographic study of the retail market for illicit streaming devices within two towns in Northeast England

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Abstract

This thesis adds to the limited knowledge on the illicit streaming device (ISD) and illegal streaming subscription markets. This study provides a detailed insight into the retail market for ISDs within two towns in Northeast England. It also explores the use of illegal streaming subscription services amongst two public houses in these towns. An ethnographic approach was applied, involving interviews and observation in the field. It explores the market structure and mechanics of suppliers as related to retail level. Law enforcement have claimed that organised crime groups are involved in the sale of ISDs in the UK. My retailers were not aware of the involvement of organised crime groups in this market. The research findings provide a detailed understanding of how ISD sellers ran their illicit schemes and the methods they employed to build their customer base and avoid detection. Culture, risk, trust, and violence are themes that run throughout this thesis. This research contributes to the literature on illegal markets at the retail level. It also explores the rise and fall of an illicit market and buyers' and sellers' motivations for entry and exit. Understanding buyers and sellers as rational economic actors played a key part in understanding their entry into and exit from the ISD market. Thus, demonstrating the utility of using rational actor perspectives to study illegal markets. This study offered insight into the decline of an illegal market which provided an opportunity for meaningful and original contribution to the literature that goes beyond just being about the ISD market. The market ended because there was no longer consumer demand for ISDs rather than because of law enforcement action, which is commonly the reason illegal markets decline.

Declarations

I (Lisa Potter) declare that this thesis is my own work and has not been submitted in substantially in the same form for the award of a higher degree elsewhere. I with the support of my supervisors, applied for exceptional permission to exceed the word limit as I am including a lot of qualitative data and description (as is inherent to ethnographic work). Word count: 89,973

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Glossary

This glossary provides definitions for technical terms used within the thesis. Words that appear in the glossary appear in bold upon first use in the main text.

- **Cyberlockers:** online services that allow users to store and share files, which are frequently used by criminals to create profit through illegal subscription services
- **European law:** European Law in this thesis it is taken to mean the law arising from the European Union and not the jurisprudence of European Human Rights Law/ECHR
- **Illegal card-sharing:** ‘a method whereby a person shares part of their set-top box card’s access code with other people, allowing them to also watch paid-for channels illegally’ (FACT, 2017a:2)
- **Illegal modifier:** a person whose role it is to illegally modify a streaming device
- **Illegal streams:** watching subscription-based content for free without permission from the rights holders
- **Illicit streaming device:** an internet-enabled device which has been illegally modified with apps or add-ons to provide the user with access to pirated sites or foreign channels or subscription-based channels without paying a subscription fee. For the purpose of this study ISD refers to a device with Kodi multimedia player and illegal add-ons or apps. It does not refer to devices where the customer had to pay a subscription fee to an illegal streaming service provider
- **Illegal subscription service:** this is available via an encrypted application, created by the service provider, and only accessible via a virtual private network that requires monthly or yearly payments to an illegal streaming provider
- **Kodi multimedia player:** Kodi is a free and open-source media player app for playing videos, music, pictures, and games

- **Open-source software** is computer software that the copyright holders have granted the user permission to use, modify and develop the source code. Source code is the code computer programmers can alter to change how any given software (i.e., program or application) works.
- **Pirated android box:** is one type of illegally modified streaming device with Kodi and illegal modifications installed that came out before the Amazon Firestick
- **Pirated firestick:** is one type of illegally modified streaming device, which was popular from 2015 onwards within the UK
- **Popcorn Time:** Free pirated application
- **Showbox:** Free pirated application
- **Streaming devices:** is a portable computer that plugs into the TV to allow users to connect to the internet and the function of these devices is to provide access to authorised sources of content without having to download it
- **Team Kodi:** The employees that develop code for Kodi multimedia player
- **ThePirateBay:** a BitTorrent site that allows users to search for and download both legal and illicit media files.
- **Torrent Freak:** a blog that provide the latest news about digital piracy issues
- **TVADDONS:** repository of legal and illegal third-party Kodi add-ons
- **Video on Demand:** where TV shows and movies are stored and accessed when required by the end-user. Viewers can watch video content at any time on any device; they are not restricted to a TV schedule or a TV platform.
- **Virtual Private Network:** an encrypted connection between someone's computer and the rest of the internet

Abbreviations

BBC British Broadcasting Corporation

CDPA Copyright Designs and Patterns Act

CMC Closed Market Customer

CMT Closed Market Traders

DCA Digital Citizens Alliance

CJEU Court of Justice of the European Union

ESRC Economic Social Research Council

EUIPO European Union Intellectual Property Office

FACT Federation Against Copyright Theft

IMS Illegal Modification Services

ISD Illicit Streaming Device

ISP Internet Service Provider

ISS Illegal subscription service

IPTVS Internet Protocol Television Services

IPO Intellectual Property Office

JRF Joseph Rowntree Foundation

MKG Matrix Knowledge Group

NETS North East Trading Standards

NTS National Trading Standards

OCG Organised crime group

OMT Open market traders

PAB Pirated android box

PFS Pirated firestick

PLBOs Premier League Blocking Orders

POCA Proceeds of Crime Act

PPV Pay-per-view

RMS Risk Management Strategies

SNS Social Network Suppliers

SVOD Subscription video-on-demand

TON Techniques of neutralisation

VPN Virtual Private Network

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1- An introduction

I begin by explaining why this research is important. Since 2014, due to the increased popularity of downloading and streaming within the licit video market, consumers have shifted the video playback device they use to watch video content from the DVD player to a range of internet-enabled devices (Intellectual Property Office (IPO), 2021; Entertainment Retail Association, 2022). Internet-enabled devices include Smart TVs, phones, tablets, computers, set-top boxes, and HDMI sticks. Illicit markets often reflect changes within licit markets (Hobbs, 2013). As a result of the increased popularity of illegal streaming, the pirated DVD market declined while the **illicit streaming device (ISD)** market emerged and rapidly expanded (Federation Against Copyright Theft, (FACT) 2017). ISDs are internet-enabled devices that have been illegally adapted, through the installation of pirated applications or add-ons, to stream subscription-based and Pay-Per-View (PPV) content without paying subscription fees. The devices used to engage in digital piracy have shifted from desktop computers towards small portable **streaming devices** including set-top boxes and firesticks that are plugged into a television. As ISDs are often used in the living room, this has enabled digital piracy to become a crime engaged in with family and friends, which 'normalises' it (Industry Trust, 2016:4).

The trade of ISDs has been regarded as a high-priority issue within digital piracy by FACT, National Trading Standards (NTS), the Police Intellectual Property Crime Unit (PIPCU), IPO, Sky Sports, BT Sports, and the Premier League (FACT, 2017a; IPO, 2018a; European Union Intellectual Property Office, EUIPO, 2019). FACT is the UK's leading anti-piracy agency in the crackdown against the trade of ISDs (FACT, 2017a). NTS, IPO, and FACT have claimed that organised crime groups (OCGs) are involved in the sale of ISDs in the UK (Forster 2015; IPO 2017b; FACT, 2017a). However, these agencies have provided scant evidence to support their claims of an organised criminal connection to this marketplace. Consequently, this claim needs to be tested.

There is a lack of publicly available information on how the ISD market operates, and the actors involved. Arguably, existing information on the trade of ISDs produced by IPO reports and FACT press releases have aimed to deter

others from engaging in the trade rather than providing the public with an understanding of how the market works and who the actors involved are, beyond OCGs. This is demonstrated by the aim of the IPO (2018b:3) crime report which is to:

‘showcase successes and evidence best practice in the fight against counterfeiting and online piracy in the UK...Public opinion regarding intellectual property crime can only be altered through positive actions: deterring criminality by enforcing international rules, encouraging greater public respect for IP rights and emphasising the dangerous nature of fake goods’.

Their other reports (IPO, 2016; 2017b; 2019; 2020; 2021) have similar aims, to inform the public about what action they have taken against the ISD market and to change attitudes towards digital piracy by educating them about ‘the harm IP crime causes to creative businesses and our communities’ to deter others from engaging in it (IPO, 2017:5). FACT provide the same message in their press releases when publicans have been prosecuted for illegally broadcasting football matches: ‘[Our] message to these individuals is, you will be caught and prosecuted’ (FACT, 2015c) or ‘[these publicans] are at high risk of being caught and face substantial penalties’ (FACT, 2015f).

At the time of conducting this study, there was a lack of empirical research into the ISD market (for exceptions see EUIPO, 2019 and The Industry Trust, 2016). This contributed to a lack of understanding of how ISD sellers operate, why the market emerged, and the underlying market dynamics that have driven this rapidly developed marketplace. This study seeks to help fill this knowledge gap.

1.1 Research aims

The aim of my study is to describe and explain the retail ISD market within two towns in Northeast England. I chose to conduct research in Northeast England because I live there. It was a happy coincidence that this region is one of the regions where the market is most established (BBC, 2017a). I aim to understand the market, its structures, and its participants, from the perspectives of both traders and users/buyers. The purpose of this study is to understand an

illegal market which we currently know very little about, but which has been flagged up by various law enforcement agencies, anti-piracy agencies, and the UK government as something to be concerned about (FACT, 2017a; IPO, 2017b). Subsequently, multiple perspectives of the ISD market, including those of the buyers, sellers, and law enforcement agents, are examined.

1.2 Structure of thesis

The thesis proceeds with an overview of what was already known about the ISD trade in the UK before I started fieldwork. It describes the retail market and explores the legal ambiguity surrounding the trade of ISDs by reviewing relevant statutes and case law within the UK and Europe, and describing the penalties traders and end-users have received. It explains why the market has emerged and the demographics of those involved.

The literature review is presented in chapter three. Due to a lack of research on the ISD market, the review draws on key themes and concepts from the broader literature on illegal markets, particularly retail-level markets. 3.1 is about situating the ISD trade within the illegal markets literature. 3.2 explores the structure of illegal markets and discusses typologies of illegal retail markets. 3.3 explores why illegal markets emerge and describes the motivations of buyers and sellers of illegal goods. 3.4 explores traders' perceptions of risk within illegal markets and the strategies deployed to minimise these risks. Sections 3.2-3.4 relate to this study's aims of understanding the ISD market's structure and participants, supply and demand, and the issue of risk in ISD markets.

Chapter four provides an overview of the methodology used for this research. This study adopted an ethnographic approach involving interviews and observations with ISD buyers and sellers and, to supplement this approach, interviews with members of Trading Standards.

My findings are presented in chapters five to eight. Chapter five introduces the research sites and describes the two pubs where this study took place. It provides the socio-economic context of the neighbourhoods and locations where trade occurs, and of the market participants who trade within the pubs. It also describes the widespread use of illegal streaming channels by public houses in Northeast England. Then it describes the rise of the ISD market within the towns

of study by exploring ISD buyers' and sellers' reasons for entering the market. Chapter Six describes how the ISD retail market was structured. Chapter Seven describes the risks that my participants encountered when buying and selling ISDs, and the strategies they applied to avoid detection. IPO (2020:33) also stated 'OCGs involved in IP Crime are using intricate methods to avoid detection'. As part of my research, I aimed to know what these methods were. The chapter then discusses the likelihood of these risks happening by comparing traders' understanding of risks with law enforcements. Finally, chapter eight describes the fall of the ISD market within the towns of study by exploring ISD buyers' and sellers' reasons for leaving the market. It offers micro and macro-level explanations as to why the market has declined.

The concluding chapter summarises my key findings and what they add to our understanding of this market – and to illegal markets more generally. It also discusses this study's limitations and makes suggestions for future research. The ISD markets I encountered were dominated mostly by sole traders with no links to OCGs, contrary to what FACT (2017) claimed. Some ISD traders exhibited 'entrepreneurial traits' (Adler, 1993) as they were profit-motivated, rational actors employing risk aversion strategies. The retail market was similar to other illegal markets as there was an open and closed market for ISDs. The ISD trade was able to rapidly expand within economically-deprived neighbourhoods, such as the towns of study, due to the community having a 'market culture' (Sandberg, 2012) where crime, including ISD trading, was normal and where people were generally unwilling to report crimes to law enforcement. I observed the market rapidly expand and subsequently decline within the towns of study due to technological advancements, law enforcement action, and crime prevention strategies.

2- Background: The ISD scene in the UK

This chapter aims to provide background knowledge on the ISD trade based on what was already known before fieldwork commenced. It begins by describing what ISDs are and how they work, the law relating to selling and using ISDs, and the penalties traders have received. This includes discussing how pubs have changed the way they illegally access sports, explaining how illegal streaming was widespread in public houses in deprived areas, and describing the penalties pubs have received for illegally showing football. After that, information about the ISD market is provided including why it emerged and expanded, the demographics of those involved, and the different types of ISD traders.

When starting this research in 2019, there were two dominant types of illegal streaming services (Federation Against Copyright Theft, (FACT) 2020; Digital Citizens Alliance, (DCA) 2020; European Union Intellectual Property Office (EUIPO), 2019). The first type was services with illegal streaming apps, add-ons, and builds which are available for free online. The second type was services that required monthly or yearly payments to an illegal streaming provider, often called 'Pirate Subscription Internet Protocol Television Services' by industry members. They will be referred to as **illegal subscription services** (ISS) herein. The problem with free illegal streaming services is that they often stopped working therefore some users were happy to pay for access (FACT, 2020; DCA 2020; EUIPO 2019). This study focuses on the trade and use of devices that provide access to free illegal streaming services using **Kodi multimedia player** for private household use, and ISS on streaming devices for use in commercial premises.

2.1 What ISDs are and how they work

ISDs with Kodi installed consist of the streaming device, Kodi multimedia player, and pirated add-ons. Streaming devices use Internet Protocol Television Services (IPTVS) and plug directly into a TV's HDMI port, allowing television programming to be 'streamed (downloaded and played almost simultaneously) to the viewer using an internet connection rather than via a fibre-optic cable or a satellite dish' (FACT, 2020:2). Devices without any pirated add-ons or applications installed are legal.

The limitation of traditional delivery methods is that, unless they have a recording device, users are restricted to watching broadcast content synchronously. They cannot control what time video content is broadcast. IPTVS are attractive because they offer the user **video-on-demand** and provide live TV on a fixed schedule (FACT, 2020:2). Kodi multimedia player is a free app used to play videos, music, pictures, and games. The Kodi company did not create their multimedia player specifically for piracy therefore it is 'neutral technology'. As the player is **open-source software**, it enables third-party add-ons (aka plug-ins) that facilitate access to illegal content to be installed. This modification process is what associates the Kodi company to copyright piracy (FACT, 2020:2). Third-party add-ons are available for free online but not all of them are illegal as some provide free content with the copyright holder's permission (FACT, 2020; Maxwell, 2015e).

2.1.1 What is accessed on ISDs?

Using pirated add-ons and apps installed on streaming devices users can access subscription-based and pay-per-view content, including movies, TV shows, and sports, without paying (FACT, 2017a). They can also access movies that have not been released in the country of viewing. Also available are football matches that start at 3pm on Saturdays which under the Union of European Football Associations article 48 is a time when no domestic broadcaster is allowed to transmit games 'due to the blackout' (Maxwell, 2017f), but these can be aired on foreign channels such as Bein Sports. (This blackout was to encourage football fans to attend their home team's football matches. Importantly, this rule is a sporting rule, not a law.) The content accessed on illegal streaming channels derives from a combination of legal and illegal sources as demonstrated within Table 2.1 (FACT, 2020).

Table 2.1: Where does unauthorised content come from?	
Service Type	Content Type
Derived from legal sources	<ul style="list-style-type: none"> • Subscription video on demand (SVOD) services (e.g., Netflix, Amazon) • Broadcast premium satellite and cable channels (e.g., Sky, BT Sports, Video on Demand) • Pay-Per-View sporting events (e.g., boxing) • Freeview Television that requires users to have a TV license • Broadcasting 3pm Saturday football matches in the UK from foreign channels
Derived from illegal sources	<ul style="list-style-type: none"> • Access to illegal streams such as cyberlockers and websites that distribute illegally acquired movies currently showing or to be shown at cinemas

When the ISD market emerged, traders advertised **pirated android boxes** (PABs) at online markets using buzzwords including ‘fully loaded’ or ‘jailbroken boxes’ (Maxwell, 2017k) - and the media (Maxwell, 2017k) and the market participants in my study tended to use these terms. In contrast, both law enforcement and different organisations concerned with preventing the trade have used the terms ‘Pirate Internet Protocol Television services’ or ‘ISDs’ (FACT, 2017a; Intellectual Property Office (IPO), 2017a; Industry Trust, 2016).

2.1.2 Who are the victims of illegal streaming?

It is important to identify whether the victims of illicit trade, such as the ISD trade, represent private or public interests because this will affect whether private or public law enforcement agencies would be investigating it. However, this is only up to a point, if a crime is committed that falls in the remit of the police and Crown Prosecution Service (i.e., public enforcement agencies), they will investigate it regardless of whether it is private or public interests that have been impacted. Trading Standards work with the police to investigate cases involving ISD traders (IPO, 2018a).

When I analysed FACT (2015a, b, c, d, 2017a) sources and **Torrent Freak** blogs (Ernesto, 2018b; Maxwell, 2014; 2017q), I identified several victims of the ISD trade and more broadly victims of illegally streamed video content including:

- Copyright holders studios
- TV broadcasters, PPV and SVOD providers
- Workers within the creative industries
- Households that pay subscription fees
- Consumers that purchase ISDs without knowing that accessing pirated content on these devices is copyright infringement
- Consumers that purchase devices with faulty wiring

Video content providers have also presented themselves as victims of illegal streaming and the trade of ISDs. They buy the copyrights to broadcast TV shows, movies, and sports on their subscription channels from the copyright holders. For example, Sky, BT, and Amazon purchase the right to broadcast football on their Sports channels from the Premier League. FACT (2020) and BT (2017) claim that when Sky Sports, is viewed illegally this leads Sky (the broadcaster) and Premier League (the copyright holder) to experience a loss of profits. They assume that if sports-focused consumers were not watching football illegally they would pay to watch football legally. It is beyond the scope of this study to determine whether this is an accurate statement. Some evidence supports this view because YouGov (Feldman, 2017) and the Industry Trust (2016) studies have shown that some ISD users have cancelled their subscriptions and others intend to cancel theirs. There is also evidence against this view. Some of the ISD users I interviewed stated before they had an ISD they went to their local pub to watch football. Additionally, FACT claimed that the victims of the ISD trade include people who pay to watch content legally because the economic losses broadcasters and copyright holders experience due to illegal streaming will result in a rise in subscription fees (FACT, 2016e). **Team Kodi** is also a victim of ISDs because their company have been negatively associated with piracy which creates bad publicity (Ernesto, 2018b). (Although, arguably, there is no such thing as bad publicity because advertisements of Kodi multimedia player for piracy still raised public awareness of the Kodi brand)

2.2 The law and prosecutions within the ISD trade

This section describes the challenges law enforcement encountered when investigating ISD traders and the applicable laws and penalties when prosecuting ISD traders and end-users in England and Wales. This description is essential for discussing the risks involved when buying or selling ISDs (see chapter seven). When the ISD market emerged, there was some uncertainty about whether trading, buying, and using ISDs was illegal in the UK and Europe and what offences could be applied because the ISD market, and streaming more broadly, were new (IPO, 2018a). As will be seen, this uncertainty was clarified in England and Wales by a European Court of Justice (CJEU) judgement handed down on 26th April 2017 in the *Stichting Brein v Wullems (t/a Filmspeler)* [2017] case.

Before the *Filmspeler* case made it clear which existing UK legislation ISD traders could be charged with, other legislation was used in England such as section 296ZB of the CDPA (1988). Modifying and then selling a device that enabled access to copyright-protected content already available online was of questionable legality under this provision. The case of Brian Thompson brought this issue to light. This had the potential to be a landmark case (see section 2.2.4) because it was the first time any seller of PABs had been charged for offences under this Act and had pleaded not guilty (BBC, 2017a; Graham, 2017; FACT, 2020; Maxwell, 2017b). Also, before the *Filmspeler* case, trading and using ISDs was perceived as a legal grey area by the media in England (North East Trading Standards (NETS) interview), the public (Industry Trust, 2016), and by traders such as Thompson. As will be seen this had implications for deterrence in this field.

2.2.1 Arresting ISD traders

Since June 12, 2015, ISD traders in England have been raided (Maxwell, 2015b) and the anti-piracy website *Torrent Freak* has started to write about raids on ISD traders in England (Maxwell, 2015d, e, 2017c) and Scotland (Maxwell, 2016a). Once the names of the first traders raided were released, the media in England focused their attention on one PAB trader, Julian Allen, (see boxed-text 2.1). After Allen, several traders were arrested and prosecuted for selling ISDs in England (see table 2.2), but Julian Allen and Brian Thompson were the most high-

profile cases. I only heard about other trader's arrests and prosecutions by reading FACT's (2017a; 2020) digital piracy reports and the annual IPO (2017b; 2018b; 2019; 2020; 2021) crime reports. It is unlikely ISD traders would read these industry reports.

Some raids and prosecutions of ISDs traders were reported in the media in England which may have deterred some traders as they may have believed they were now at risk of being prosecuted. However, this deterrence would only be effective if potential traders had read such publications which as will be seen in chapter seven not all traders interviewed did.

Traders have been prosecuted for selling Sky or Virgin decoder boxes in England (BBC, 2011; FACT, 2016d; FACT, 2017a), but those devices are legally different from ISDs. Decoder boxes are a type of 'card-sharing' device that decrypted encrypted broadcasts (through the emulation of a smart card). Traders of card-sharing devices are often charged with Section 297A CDPA (1988), which FACT lawyers stated is unsuitable for charging ISD traders since the ISD plays no part in the decryption of a transmission (Groome and Alibhai, 2017). The ISD market superseded the decoder box market as a new way to commit digital piracy (DCA, 2020). The offences traders of decoder boxes could be charged with were clear as they were a form of **illegal card-sharing** (FACT, 2017a) whereas when the ISD market emerged some believed the offences ISD traders could be charged with were not clear (IPO, 2018a).

2.2.2 Prosecuting ISD traders under the English legal system

As this is a study of an illicit market there must be a discussion of the law on ISDs. In their original form, streaming devices and Kodi multimedia player are legal. As will be seen, the CJEU in the Filmspeler case held that the sale becomes illegal when third-party apps or add-ons are installed that facilitate access to copyrighted content without the copyright holder's permission. Before the Filmspeler judgement there was no case law to say the sale or use of ISDs is illegal.

In parliamentary debates, discussing the formation of the Digital Economy Act, Brennan (2016:257) and other members of Parliament expressed concern that by late 2016 the ISD market was rapidly expanding. They suggested that the CDPA (1988) was outdated and proposed that it required updating in line with the technological changes in how digital TV piracy is committed. It also needed updating because Trading Standards were encountered challenges policing ISD traders under this Act. However, Hancock, Minister for Digital and Culture (2016:267), rejected the new clause arguing that existing CDPA (1988) legislation is suitable for prosecuting ISD traders. And that the 'supply of [ISDs]... is already covered by criminal law under the Fraud Act 2006 and the Serious Crime Act 2015'.

Not only were there legislative problems with prosecuting ISD traders there were also problems policing them. When the ISD market emerged, it was a new illegal market therefore antipiracy agencies, IPR holders, and Trading Standards encountered the problems of what action could they take against people suspected or caught supplying PABs and what offences could they charge them with (IPO, 2017a; North East Trading Standards, NETS, 2017). It was clear to some within these agencies that selling a device that facilitated access to copyright infringing content was copyright infringement under the CDPA (1988), but to others, it was unclear whether it was an offence and which laws were being broken (Maxwell, 2017e; IPO 2018a).

In response, in early 2017, while acknowledging that the applicable law will vary from case to case, IPO (2017a:1-2) set out guidance on which existing legislation 'may be applicable [in the UK] to the sale, advertising, supply or use of set-top boxes for illicit streaming'. This includes copyright offences under CDPA (1988) including s.297: fraudulent reception of transmissions, s.297A: unauthorised decoders and s.296ZB: devices and services designed to circumvent technological measures. Other applicable law includes s.6 (possession of articles for use in fraud) and 7 (making or supplying articles for use in frauds) and s.11 (obtaining services dishonestly) of the Fraud Act 2006 (IPO, 2017a:1).

'Under [the above] provisions, an individual commits an offence by supplying set-top boxes (both fully loaded or 'legal') having knowledge that they would be used illegally. Additionally, the supplier of set-top boxes can commit the offence of running a fraudulent business' (EUIPO, 2019:81).

Other applicable offences include:

'the common law offence of conspiracy to defraud and the inchoate offence of encouraging or assisting crime, coupled with sections 44-46 of the Serious Crime Act 2007. Other provisions include sections 328-329 of the Proceeds of Crime Act 2002' (IPO, 2017a:2).

Some lawyers have questioned the suitability of applying these provisions to ISD traders (Groome, and Alibhai, 2017).

As will be seen, law enforcement agencies were also encountering other challenges investigating ISD traders. To address this issue, in 2017 over 30 organisations, including members of law enforcement and anti-piracy agencies, and IPR holders, were asked by the UK government to respond to a 'call for views' asking what could be done to help them investigate the ISD trade (IPO, 2017a). The report concluded that over half of the respondents argued that existing legislation was insufficient 'to take action against those who sell and distribute illicit streaming devices or produce apps that facilitate access to infringing material' (IPO, 2018a:1). Respondents argued for a change in current legislation. In response, the UK government advised that 'the existing legislative framework is sufficient to capture the supply and use of ISDs' and reiterated provisions described in the IPO (2017a) report. They added:

'Section 11 of the Fraud Act 2006 and section 44 of the Serious Crime Act 2007 in combination cover the criminality that arises in relation to ISDs, and these Acts also provide sufficient sentencing powers for those offences' (IPO, 2018a:1).

They also welcomed the judgement made in the FilmSpeler case as, as will be seen, this case provided a significant development in IPTV-related case law. They also commented that the several successful prosecutions of ISD traders

supported their view that the existing legislative framework was sufficient (IPO, 2018a). Examples of cases involving ISD traders being charged for different offences are provided below and these particular cases were chosen because they are used for other discussions in this chapter. Table 2.2. demonstrates that the offences ISD traders were charged with does not coincide with everything they could have been charged with, suggesting there was still a lack of clarity on suitable offences.

Table 2.2: Offences ISD traders have been charged with in England			
Case study	Offence	Description of case	Penalty
R v Malcolm Mayes (2017)	Copyright infringement under s.297A CDPA 1988: unauthorised decoders	advertising and selling adapted IPTV boxes that allowed pubs and clubs to screen pay-to-view TV free of charge	10-month suspended sentence and ordered to pay £250,000 for copyright infringement (EUIPO, 2019)
Brian Thompson R v Brian Thompson and Julian Allen, (2017)	Copyright infringement under s.296ZB CDPA 1988: offence of circumvention of technological measure	Advertising and selling ISDs	18-month suspended sentence (Maxwell, 2017l)
R v John Dodds and Jason Graham (2018)	Conspiracy to defraud, contrary to the Common Law	Prosecuted for running a 'large-scale' network supplying hundreds of ISDs that provided unauthorised access to Premier League to commercial premises in Northeast England. They earned up to £1.5 million through this criminal activity.	Both defendants received four-and-a-half-year custodial sentences (Premier League, 2018; IPO, 2019)
R v William O'Leary and Terence O'Reilly, (2016)	Conspiracy to defraud, contrary to the Common Law under section 5 (2) of the Criminal Law Act (1977)	'Supplying devices and services [to pubs and household users in England] that facilitated the viewing of pay-per-tv without appropriate payment to said broadcasters' (IPO, 2017a:2)	O'Reilly received a four-year custodial sentence. As his co-conspirator, O'Leary, pleaded guilty he received a two-year suspended

			sentence (FACT, 2017a)
R v Rosero (2016)	S.44 (1) Serious Crime Act 2007: Intentionally encouraging or assisting an offence and s.11 of the Fraud Act 2006: Dishonestly obtaining services	‘Commercialised illegal IPTV devices’ ‘Dishonestly and knowingly obtaining services from Sky without the authority of Sky and without paying the required subscription fee to Sky’ (IPO, 2017:2)	Fined £392, victim surcharge £39, along with a contribution to prosecution costs (IPO, 2017)
R v John Haggerty and Mary Gilfillan (2018)	Fraud Act 2006 and conspiracy to defraud	Supplying devices and services that facilitated the viewing of pay-tv without appropriate payment to relevant broadcasters and content owners (Kennedy and Dickinson, 2018)	Haggerty received 5-year custodial sentence, Gilfillan received 2-year suspended custodial sentence (IPO, 2019)
Julian Allen R v Brian Thompson and Julian Allen, (2017)	Money laundering under s.329 of the Proceeds of Crime Act 2002	Advertising and selling ISDs	Suspended sentence of 21 months (Maxwell, 2017j)

2.2.3 Developments in Internet protocol Television case law

The Filmspeler case significantly developed IPTV-related case law in EU member states, which the UK was part of in 2017. The court held:

‘The sale of a multimedia player of the kind at issue, in which the seller had installed hyperlinks to websites that, without the authorisation of the copyright holder, offered unrestricted access to copyright-protected works, such as films, series and live programmes, constituted "communication to the public" within the meaning of Directive 2001/29 art.3(1) and could not be exempted from the reproduction right’.

After this judgement, it has been widely accepted amongst courts in EU member states that the sale of ISDs is illegal (EUIPO, 2019). Members of law enforcement in England and Wales, anti-piracy agencies, and IPR holders welcomed this judgement because it made clear that the sale of pre-configured IPTV devices constitutes an offence under section 107(2A), therefore ISD traders could potentially be prosecuted under this provision (IPO, 2018a).

‘Communication of a copyright work to the public without the authority of the copyright holder is an offence in UK law under 107(2A) CDPA. This judgment therefore clarifies the position in law with reference to those who sell devices which are modified, for example with Kodi based ‘add-ons’, to enable access to premium television content without payment to the rights holders’ (Groome and Alibhai, 2017).

However, until section 32 of the Digital Economy Act (2017) was enforced the problem with relying exclusively upon 107(2A) was that the maximum sentence was two years which some lawyers believed ‘does not reflect the degree of criminality involved in large-scale IPTV frauds’ (Groome and Alibhai, 2017). Section 32 of the Act amended the CDPA (1988) and came into effect in October 2017. This Act extended criminal penalties for online copyright infringement to match those of physical copyright infringement which meant that the maximum sentences, for ISD traders, increased from two to ten years.

2.2.4 Testing copyright law under English law

After presenting a landmark case under European law I now present what could have been a landmark case under English law. The cases of Thompson and Allen are significant as they were the first mention of traders being arrested for selling PABs in Northeast England, the region that is the focus of this study. Thompson’s case illustrates why, in 2015, some traders including some I interviewed, believed the law on trading ISDs was a grey area (see section 7.1). Some of my participants’ understanding of the law came from what Thompson said. Importantly, these cases were initiated before CJEU held that selling ISDs is illegal. A reporter at Torrent Freak perceived these cases as significant and unusual because the courts charged these two traders for different offences even though they committed similar acts of copyright infringement through the sale of

PABs. Thompson was charged with copyright infringement while Allen was charged with money laundering for 'using or acquiring criminal property' (Maxwell, 2017j).

Thompson and Allen's cases were not reported in the law reports; therefore, I analysed media documents to describe them. Thompson's case was high-profile, with details published in a variety of sources, including printed and online formats of national (BBC, 2016; 2017a; The Guardian, 2017) and local Northeast (The Chronicle, Lightfoot and Knight, 2017; The Teesside Gazette Lightfoot 2017; 2018) news outlets.

Thompson's had the potential to be a landmark case because it was the first time any seller of PABs had pleaded not guilty to offences under section 296ZB of the CDPA (1988), which deals with devices and services designed to circumvent technological measures (Graham, 2017; BBC, 2017a; Maxwell, 2017b). News reporters at Torrent Freak believed that it had the potential to 'determine the boundaries when it comes to [selling ISDs] in the UK' (Maxwell, 2017b). In January 2017 Thompson admitted to selling these devices but pleaded not guilty to the charge (Maxwell, 2017l). As defined in section 296ZB of the CDPA (1988) 'selling devices and/or services designed for infringing copying purposes is copyright infringement in the UK'. A Torrent Freak reporter provided a comprehensive explanation of how charging a PAB trader under this provision made Thompson's case complicated:

'Kodi installations with third-party add-ons effectively "farm" content already available on various "pirate" sites on the Internet. On that basis, it could be argued that any anti-circumvention/anti-copying measures put in place by broadcasters and other copyright holders have already been bypassed by the time the add-on streams the content to the user. However, the Court will have to decide what part, if any, Thompson played in circumventing those measures when he sold modified Kodi devices to his customers' (Maxwell, 2017b).

Thompson was not creating pirated content but was providing a device that had been modified to access pirated content that was already available. The trade of

ISDs raised the question of who was circumventing technological measures, whether it was Thompson, the person installing the pirated app onto the device then selling it, or the person who had provided access to unauthorised content through the pirated app.

In response to these charges, in September 2016 Thompson said:

'All I want to know is whether I am doing anything illegal. I know it's a grey area but I want it in black and white... I'm prepared to accept what the court decides but at the moment as far as I'm concerned I'm not breaking the law' (Maxwell, 2016c).

Thompson wanted to be prosecuted for legal clarity and did not believe his actions were illegal (Maxwell, 2017l). The media and people interested in digital piracy-related issues also wanted legal clarity on how sellers of PABs could be 'circumventing technological measures' and how this offence applies to 'streaming illicit content' (Maxwell, 2017k; IPO, 2017a). In September 2017 Thompson changed his plea to guilty. Consequently, there was no trial just a sentencing hearing, and his case never became a landmark case (Maxwell, 2017k). Torrent Freak reporters believe Thompson's case failed to clarify how sellers of PABs could be 'circumventing technological measures' (Maxwell, 2017k).

Thompson and Allen were sentenced together. At their sentencing hearing, the judge said: 'Not only have the courts in this country ruled as such, but Europe also has ruled [trading] such devices are illegal' (Lightfoot, 2017). A reporter at Torrent Freak reported that charging Thompson for offences under section 296ZB of the CDPA (1988) rather than for offences of 'making available' under section 107(2A) of the CDPA (1988) was unusual (Maxwell, 2017l). Therefore, it is questionable why Thompson was not charged under that provision; this may have been because Thompson was prosecuted by Trading Standards rather than FACT or the Premier League, which was unusual because they usually privately prosecute ISD traders (FACT, 2017a; Groome and Alibhai, 2017; Maxwell, 2017l).

The main purpose of describing Thompson's case was to show that he argued that he was acting lawfully, whether he honestly believed it was a different point, but as the case shows clearly his interpretation of the law turned out to be wrong. But as we will see later what is actually important here is what traders *think* the law is (see section 7.1). Thompson believed he was acting within the law. As this case shows and as we will find out more in the findings chapters, some traders really may have thought that they understood the law but clearly understood it differently from what the law actually was. It is how people involved in the trade or use of ISDs understood the law that was more influential on their behaviour than what the actual law was. For some traders there was a gap in knowledge or misunderstanding of the law on trading ISDs which has implications for the effectiveness of deterring ISD traders with threats of legal sanctions.

2.2.5 Penalties for ISD sellers

Since June 2015, ISD traders in the UK, such as Thompson and Allen, began to be raided, but it was not until 2016 that traders began to be prosecuted. In December 2016, William O'Leary and Terence O'Reilly were the first traders in the UK to be sentenced for selling ISDs (see table 2.2).

There are no publicly available statistics on how many sellers have been arrested or prosecuted for selling ISDs within a particular time frame as FACT and IPO sources do not contain this information. Such cases are often private prosecutions brought by FACT or Sky (FACT, 2017a) therefore information about cases is considered propriety information (McIlwain, 2005). However, IPO (2021) did publish that between 2020 and 2021 FACT sent out cease-and-desist notices to target 84 lower-level offenders selling ISDs and illegal streaming subscriptions on social media in the UK. The number of illegal traders operating between this time frame is likely higher. This is the same as with other types of illegal traders - and the dark figure of crime more generally (Thoumi, 2005; Barham et al., 2003).

Low-level traders tend to receive cease-and-desist letters or community orders (IPO, 2018b; 2019; 2021). Traders that sell ISDs or ISS to other businesses or operate on a large scale tend to receive custodial or suspended custodial sentences (IPO, 2019; FACT, 2017a, b, c, d; Maxwell, 2018c). The latter traders are also often ordered to pay back money under sections 328-329 of the

Proceeds of Crime Act (POCA) (2002) (IPO, 2020). Interestingly, FACT's (2017a) report provides a skewed overview of ISD and ISS prosecutions as it only contains cases where traders have received custodial or suspended sentences. They create the illusion that if you sell ISDs or ISSs, regardless of mitigating factors, you will receive a custodial or suspended sentence. But as demonstrated by IPO reports (2017, 2018b, 2019) other traders have received lower penalties which are omitted from FACT's (2017a) report. It is possible these cases occurred after FACT published their report.

2.2.6 The law on using ISDs

The ISD market takes different forms. There are different types of ISD users - those who purchase ISDs to use in their private households and those who purchase to use in pubs or social clubs. In December 2016 dozens of newspaper articles in England discussed whether household end-users streaming content via modified apps on Kodi, without the copyright holder's permission, is illegal in England and Wales. These sources perceived this topic as a 'legal grey area' (Maxwell, 2017a). A study of ISD users, conducted in 2016, has shown that the media portraying the law as unclear was problematic because it resulted in ISD users also holding that belief (Industry Trust, 2016). This is likely because the public's understanding of the law often derives from the media (Jones, 2017). The media portraying the law as a grey area likely resulted in lots of new ISD users, including those who would not usually engage in digital piracy, due to the perception that the risks of being detected or punished were low or non-existent. The publicity surrounding ISDs likely inadvertently raised awareness of ISDs and resulted in more ISD users (FACT, 2020).

Due to the increased media attention surrounding ISDs in January 2017 BBC Radio 5 Live also discussed this question (Maxwell, 2017a). The BBC, then later a member of Torrent Freak, interviewed FACT chief Kieron Sharp and intellectual property lawyer Steve Kunczewicz. They both were unsure whether using ISDs was currently illegal but explained it might become illegal in the future. They stated that end-users were unlikely to be punished, because although FACT aimed to deter ISD traders and users their focus was suppliers rather than end-users (Maxwell, 2017a).

In April 2017, in the *Filmspeler* case, the CJEU offered clarity on accessing unauthorised streams via an ISD. The CJEU held that customers buying and using set-top boxes to watch subscription-based content without paying the rightsholders were infringing copyright.

'This infringement was based on the fact that temporary copies of the television films would be made on the player and these would be unauthorised copies. The Court held that these copies were not covered by a copyright exception' (Lingard, 2017).

This judgement ended the perception that watching subscription-based content for free on ISDs was legal under English law (Lingard, 2017). Yet action against household users of illegal streaming sites in the UK did not begin until 2020. Households began to receive cease-and-desist letters informing them that their internet service provider (ISP) knew they were engaging in copyright infringement by accessing illegal streams. Within these letters 'the warning states that subscribing to these services is a crime that carries a maximum sentence of up to five years imprisonment and/or a fine, and a criminal record'. These letters were intended to deter end-users from illegal streaming (Express, 2021).

As of September 2023, there have been no reported cases where end-users of illegal streaming sites (including ISD users) have received a penalty. Such a policy is controversial 'because the[se] threats of legal action are rarely taken to court' (BBC, 2021b). If end-users know they are unlikely to be prosecuted, they are unlikely to be deterred by this warning. Therefore, end-users may perceive these letters as empty threats, resulting in them ignoring and discarding the letter. The effectiveness of warning letters on the end-users I researched are explored further in chapter eight.

2.2.7 Pubs illegally accessing sports

Commercial premises are also end-users of illegal streaming services. Public houses and social clubs act as suppliers of illegal subscription services (ISS) as they purchase them to use within their establishments to attract sports-focused clientele. Here, I describe the change in the way commercial premises illegally access Sky Sports, how widespread using illegal streaming services was,

and the penalties received if prosecuted for illegally showing Premier League football.

Commercial premises in the UK illegally broadcast Premier League matches if they do not have a commercial subscription from Sky Business or BT Business (Sky UK, 2017; BT, 2017). Commercial premises illegally showing Premier League football is not a new phenomenon but how they access it has changed from decoder cards to ISDs and ISSs (BBC, 2011; DCA, 2020; FACT, 2017a). In the past, the Premier League provided decoder cards to countries within the European Union to watch their matches (PLC IPIT and Communications, 2011). The Premier League do not allow broadcasters to supply non-UK decoder cards for use in the UK because they want UK football fans to pay Sky Sports to watch their football to make a profit (PLC IPIT and Communications 2011).

In 2016, two pubs within deprived areas of Northeast England were fined for illegally showing Premier League football (Southern, 2016), then in 2017 a further eight pubs were fined within the same region (FACT, 2017e). These cases show that between 2015 to 2017 illegally streaming football was widespread amongst public houses within deprived areas in Northeast England. Illegal streaming by public houses was not restricted to Northeast England it was a national phenomenon. I analysed FACT press releases from 2015 to 2016 involving public houses in England that were prosecuted for illegally showing Sky Sports or BT Sports. I identified twelve pub landlords prosecuted for illegally showing Sky Sports in regions excluding Northeast England (FACT 2015a, b, c, d, e, f, 2016a, b, c). These prosecutions were mostly in the Northwest of England suggesting that pubs illegally streaming football was not widespread in England. However, there are regional differences in policing and Crown Prosecution Service policies which may account for these differences. There were likely to be more pubs illegally streaming football than the number of pubs that were prosecuted because suppliers and users of illegal streams constitute a hidden population; exact figures are impossible to know.

I also analysed the same FACT sources to identify what offences pub staff were charged with and what penalties they received. I found that pub owners or

licensees within nine different commercial premises had been charged for one or more offences under Section 297 (1) of the CDPA 1988 (FACT, 2015 a, b, c, d, e, f, 2016a, b, c). All nine of these pubs were ordered to pay fines and legal costs, two were ordered to pay a Victim Surcharge, and the pub owner or licensees within six of these pubs received a criminal conviction.

2.3 The retail market for ISDs

The previous section explained the law on trading and using ISDs. The following section describes the size of the ISD market, explains why the market emerged and expanded, and describes ISD sellers and end-users demographics. It then describes different types of ISD traders.

2.3.1 About the ISD market

Consumer attitude surveys on digital piracy and seizures of ISDs by law enforcement demonstrate that from 2016 to 2020 the most popular way to access pirated content on streaming devices in the UK was by installing the Kodi multimedia player app with pirated add-ons (Industry Trust, 2016; Feldman, 2017; IPO, 2017c; FACT, 2020). There were other less popular ways to access pirated content on streaming devices such as by installing free pirated applications, including **PopCorn Time** and **ShowBox**, that do not require the installation of a multimedia player (Maxwell, 2016a).

Broadly, there has been a shift in the preferred device used to access illegal streams. When Kodi multimedia player became available for android set-top boxes these devices were the preferred way to access illegal streaming services (Maxwell, 2015a). Interestingly, Kodi multimedia player and the Amazon Firestick market expanded simultaneously (in 2015) suggesting that firesticks were being purchased to install Kodi with illegal modifications (Maxwell, 2015f). This suggests that users of PABs in the UK had shifted their preferred streaming device to access illegal streams from android boxes to Amazon firesticks or that more people started using ISDs. Interestingly, in the sources I analysed traders were selling PABs rather than **pirated firesticks** (PFS) to pubs (FACT, 2017a, 2020; IPO 2017b; 2018b, 2019).

I now demonstrate how widespread using ISDs were in the UK. A YouGov study estimated that ISDs became popular amongst the general public in March

2016 (Feldman, 2017). Multiple sources suggest that the UK ISD market peaked in 2017 (Cook, 2022; Feldman, 2017; IPO, 2018; Maxwell, 2020). Based on data collected from the Online Copyright Infringement Tracker, IPO (2017c) found that 25% of British people who participated in the survey illegally streamed or downloaded pirated material online. They also estimated that over one million ISDs had been sold in the UK since 2015. A different consumer attitude survey conducted by YouGov in 2017 (Feldman, 2017) estimated that five million people in the UK access pirated TV streaming services. This included 10% of the UK population using android boxes or Amazon Firesticks to access Kodi with illegal modifications and using illegal streaming apps on smartphones and tablets (Feldman, 2017). According to the Industry Trust (2016:3) between November 2015 and November 2016 there was an astonishing 143% growth in Google searches for terms associated with ISDs in the UK, from 85,030 to 206,570 average monthly searches. These statistics suggest the ISD market had rapidly expanded by 2017.

The expansion of the ISD market by 2017 was a global phenomenon. Google Trends data from August 2014 to August 2020 suggests that interest in the search term 'Kodi' peaked between February and April 2017 (Maxwell, 2020; Cook, 2022). During the same time Google search trends for a similar term 'Kodi add-ons' showed a similar pattern, peaking in early 2017 (Maxwell, 2020). At an international level in 2018 the UK was amongst the countries with the highest number of people illegally streaming video content (EUIPO, 2019:50).

Free pirated add-ons for the Kodi media player app on streaming devices were popular at a global level. Then, after they had been out for a while, ISSs became popular (DCA, 2020). The number of users worldwide accessing ISSs increased significantly between 2018 to 2020 (Ernesto, 2020). There is no available data in the UK to suggest that household users of illegal streaming sites shifted from using free pirated add-ons for Kodi to ISSs (IPO, 2018b; EUIPO, 2019). The decline of the ISD market is explored in chapter eight.

It is impossible to guess the size of an illegal market, such as the ISD or ISSs market, because these markets are hidden (Thoumi, 2005; Barham et al., 2003). There are no statistics available in the UK stating the value of the illegal streaming

market, or the amount of money it costs the industry in lost subscriptions. But 'counterfeiting and piracy [...] cost the global economy an estimated \$1.77 trillion in 2015, which is nearly 10% of the global trade in merchandise' (World Economic Forum, 2015:3).

2.3.2 Why has the ISD market emerged and expanded?

There is agreement among the UK anti-piracy agency (FACT, 2017a), UK government (IPO, 2017b; 2018b) and anti-piracy bloggers (Maxwell, 2015b) that the emergence of the ISD market can be understood in simple economic terms of supply and demand. The motivations of consumers relate to understanding the emergence of the market. When organisations explain why consumers purchase and use ISDs they draw on different explanations- overall, there were two components to this. Some focus broadly on why people engage in digital piracy, via illegal streaming, instead of paying for legitimate services. Others focus on why people use ISDs (e.g., PABs or PFS) rather than other streaming devices (e.g., desktops or smartphones) to watch illegally streamed content. This focus often draws on why people use illegal add-ons or apps to access illegal streams rather than accessing illegal streaming websites directly.

I now outline both approaches. After a one-off fee to purchase PABs has been paid, before 2017 this was between £40-£50 from some retailers (IPO, 2017b; FACT in IPO, 2018b); the device provides free access to illegal streams. Therefore, PABs are goods that are traded at a lower price on the illicit market than those available on the parallel licit market. As discussed, there has always been demand for unauthorised access to video content; previously this material was accessed through pirated DVDs, digital downloads and Virgin or Sky decoder boxes, then, most recently, through illegal streams (DCA, 2020).

For people who lacked technical skills accessing illegal streaming sites directly on the internet was problematic for two reasons. One reason was that illegal streaming sites are difficult to find as they require searching for a website that works because they are regularly closed by law enforcement (Maxwell, 2016e). Another reason is illegal streaming sites are difficult for novices to use as some lack a search box option (Maxwell, 2014). Consumers wanted an easy, convenient, user-friendly way to access illegal streams that require limited

technical skills. Subsequently, ISDs provided the solution (Maxwell, 2014; 2017c; FACT, 2020). ISDs are a popular method of viewing illegal content because they are a 'plug and play device' (Maxwell, 2015b; Industry Trust, 2016; FACT, 2020:2). Users plug the streaming device into their TV and the installed pirated add-ons provided them with direct access to illegal streaming sites. ISDs offered another advantage over illegal streaming websites. Such websites often have adverts and pop-ups, but FACT (2020) claimed that accessing illegal streams on ISDs removed these. However, this was not true, as the ISD users I spoke to complained that ISDs were full of adverts and pop-ups.

Another reason consumers want ISDs, beyond ease of use, is they offer a benefit that the legal streaming market does not as they provide access to multiple streaming channels in one place (FACT representative in Maxwell, 2017a). YouGov conducted a study involving focus groups to understand the motivations of people engaging in illegal streaming (Feldman, 2017). Their study found consumers justified their deviant behaviour in different ways. Some end-users perceived illegal streaming to be a victimless crime, while others believed pay TV subscriptions were too expensive and did not provide value for money (Feldman, 2017). These findings echo the BBC's (2017b) survey of people illegally streaming sports.

On the supply side, presumably as with other illegal markets, the ISD market emerged because suppliers expected to make a profit from the goods sold and could manufacture and distribute the goods while avoiding detection from law enforcement. Suppliers responded to demand for an easy way to access illegally streamed content. Presumably, as there was already a market for pirated content in the form of illegal streaming, traders were able to target this existing market for potential customers. Arguably, the ISD market was demand-led. The UK government body IPO, the anti-piracy agency FACT, and IPR holder the Premier League believe that ISD traders are profit-motivated and they work with Organised crime group (OCGs) that are involved in the trade of other illegal goods (FACT, 2017a; IPO, 2017b).

FACT (2020) points to another factor that contributed to the emergence of the ISD market: technological advancements, particularly the development of

streaming technology. The development of legitimate video streaming services (including Netflix and Amazon) provided an opportunity for criminals to access this content and illegally share it with their customers. The development of streaming devices, including set-top boxes and firesticks, provided a video playback device to watch this content. Kodi, formerly XMBC multimedia player, is not new software as it has existed since the creation of the original Xbox in 2002 (Maxwell, 2014). In 2014 Kodi multimedia player became available for android boxes. This availability, alongside the ability to install third-party add-ons and applications onto Kodi that provide access to illegal streaming services, led to the creation of the ISD market (Maxwell, 2015a;2015d; Ernesto, 2015a; FACT, 2020). This coupled with the proliferation of online markets resulted in the widespread availability of ISDs at online markets.

Kodi multimedia player is very popular because 'it can be installed on a wide variety of different operating systems (including Windows, iOS, Android) and streaming devices' (FACT, 2020:2). This flexibility allows users to watch content anywhere and at any time, they are no longer restricted to the TV platform or to set viewing times as they previously were with live broadcast TV/linear TV (Maxwell, 2017a). Illegal streaming is an internet-enabled crime, a technologically facilitated crime. Therefore, the number of UK households with access to high-speed broadband at home also contributed to the ISD market's expansion (Industry Trust, 2016).

As mentioned, the ISD market emerged in 2014, rapidly expanded and peaked by 2017 raising the question of why this had occurred. Some of the reasons the market expanded are the same reasons as why it emerged and have already been discussed. Different organisations have identified several factors that contributed to the market's expansion.

The ISD trade having a legal-illegal crossover was one factor that contributed to the expansion of this market. As the trade of streaming devices with Kodi multimedia player installed is legal, this made it impossible for law enforcement to stop the ISD market from expanding (FACT, 2017). Streaming devices can be manufactured, transported, advertised, and sold legally therefore, ISD suppliers took advantage of this legal-illegal crossover. Legitimate retailers

could legally advertise that they were selling streaming devices alongside other products in their shops. This provided them with an opportunity to also sell ISDs as long as they did not advertise that the device provided access to subscription-based channels that should be paid for. Furthermore, as streaming devices can be purchased legally it is difficult, almost impossible, to control what end-users do with their streaming device once they have purchased it. Customers can purchase streaming devices and then illegally modify the device or get someone else to.

As mentioned above, up until the CJEU ruling in the Filmspeler case in April 2017, the law on selling and using ISDs was portrayed by the media and piracy news sites in England as a 'grey area' (Maxwell, 2017a; IPO, 2017b:65; Industry Trust, 2016). As the public's knowledge of the law comes from the media, this resulted in traders (e.g., Thompson) and users of ISDs believing the law was unclear surrounding the ISD market. The IPO believe that ISD traders are entrepreneurs that identify legal grey areas. 'The [ISD] selling community is close knit and adapts constantly to allow itself to operate in the grey area where current legislation is unclear and where they feel they can continue to sell "under the radar"' (IPO, 2017b:72). Consequently, by the time the case went through the long legal process and the CJEU made their judgement, the ISD marketplace had rapidly expanded in the UK (IPO, 2017b). Regardless of the CJEU's ruling, how people understand the law was more influential on their behaviour than what the actual law was.

A further factor in the expansion of the market since 2014 - and it peaking in 2017 - was likely the lack of meaningful deterrent due to the lack of arrests and prosecutions of traders and users of ISDs during this time. This may have suggested to the public that the ISD market was a low or non-priority for law enforcement. Consequently, ISD buyers and sellers were unlikely to fear punishment. Deterrence theory is explored further in section 3.4.

Relatedly, the ISD market may have rapidly expanded due to law enforcement lacking knowledge about ISDs and lacking the training and skills to investigate traders. This may also explain why there was a lack of arrests and prosecutions of ISDs traders. Due to the rapid expansion of the market, 'Police

Scotland held a seminar for law enforcement investigators in the UK to increase their knowledge and skills surrounding the ISD market' (IPO, 2017b:73). A related issue is that in 2017 Trading Standards and the police stated that they lacked the resources to pursue cases involving the sale of ISDs. And 'Trading Standards lack the legal authority to investigate some offences which can make investigations complicated leading to an unwillingness to take them on' (IPO, 2018a:8). Trading Standards worked with the police because they do not have powers of arrest.

Another reason the ISD market expanded is likely due to public tolerance towards ISDs and digital piracy more broadly. Digital piracy has always been difficult to prevent, and illegal streaming is a new form of it (Industry Trust, 2016; IPO, 2018b). Law enforcement often relies on complaints from the public to investigate ISDs, but some of the general public do not perceive using ISDs to be breaking the law or are tolerant towards their use (IPO, 2017b). This is problematic for law enforcement because they are unlikely to receive many complaints against traders or users of ISDs. I have identified different factors that help explain the emergence, and expansion of the ISD market, these reasons are explored further in chapter five using traders and users' perspectives.

2.3.3 Demographics of ISD buyers' and sellers'

Having explained why the market emerged and expanded I now describe the demographics of those involved. There are no statistics available on ISD buyers' and sellers' demographics. The problem with data from consumer attitude surveys on digital piracy, such as YouGov's study (Feldman, 2017) and IPO's (2017c) Online Copyright Infringement Tracker survey, is that they do not include a demographic breakdown of ISD users - their data pertains to users that engage in digital piracy in general. YouGov's 2017 study found that many people using pirated platforms, including ISDs, are young with 18–34-year-olds accounting for 37% of users (1.8 million people) (Feldman, 2017). Similarly, the Industry Trust (2016) surveyed 1,407 ISD users aged 11+ to understand attitudes towards ISDs. Most ISD users are aged between 18-24 (35%), and those aged 65 and above are least likely to use ISDs (3%) (2016:12). Most of the people surveyed (88%) use their ISD when they are alone or with another adult (71%) (2016:11). One limitation of their study is that they do not include the social class of ISD users. In

section 5.3, I fill this knowledge gap by providing a demographic breakdown of ISD buyers and sellers within the towns I studied.

2.3.4 Types of ISD trader

ISD traders that have been prosecuted have been described in FACT (2017a, 2020) and IPO (2017b; 2018b, 2019) reports. By analysing these sources, I identified three variables across which differences between traders within the ISD market can be observed. Table 2.2 described more details of each trader.

The first dimension of ISD traders is based on who they sold to. I identified two types: those who acted as retailers by purchasing PABs from suppliers and then reselling them solely to individuals/household users (e.g., Brian Thompson), and those who sold PABs from their business to other businesses such as to other ISD traders (e.g., Julian Allen) or pubs and clubs (e.g., Malcolm Mayes and Dodds and Graham). There is some variation within this latter type as those who sold to pubs and clubs specialised in offering football while traders reselling to other ISD traders did not. There is also a variation between the two main types as some traders sold PABs to private households only (Brian Thompson), others resold to other traders and households (Julian Allen) and others supplied to pubs in the UK and households (William O'Leary and Terence O'Reilly).

A second dimension of ISD traders is based on where they sold: online or offline markets. ISDs were traded at offline markets including public houses, social clubs, and retail stores (FACT, 2017a). They were also traded at online markets including social networking sites and online marketplaces (IPO, 2018b; Maxwell, 2017). Some traders operated online or offline at one marketplace (Dodds and Graham) and others operated in both (e.g., Thompson and Allen). Annual statistics have consistently shown that most ISDs were sold at online markets rather than from shops, homes, or businesses (IPO, 2017; 2018b; 2019). Surprisingly, even though the ISD market is an illicit market, which are usually hidden (Hetzler, 2002), traders on eBay and Amazon made no efforts to hide their activities. In 2015, traders advertised PABs using the terms 'fully loaded' Android boxes which made them easy for customers to find and purchase (Maxwell, 2014) - but inadvertently also easy for law enforcement to identify and remove these

advertisements, if they knew the jargon and if they were policing this trade. Explanations for this openness relate to why this market emerged and expanded (see section 2.3).

A third variable to observe differences is based on how traders were organised. Some traders worked alone selling PABs (e.g., Malcolm Mayes, FACT, 2017a). Since 2014, PABs were sold by sole traders who were 'regular people' intent on making a profit and they operated in online or offline markets (Maxwell, 2016b). A second structure was an illicit scheme involving a trader who permanently worked with a partner but was not part of a criminal group (e.g., Dodds worked with Graham) (IPO, 2019). A third structure involved individuals who worked as part of a criminal group selling PABs (e.g., Allen's scheme, boxed-text 2.1). This involved the funder setting up a business that only sold PABs and trying to run it like a legitimate business. This included employing staff and selling at open markets, such as at their business premises (retail stores and websites), rather than hiding their illegal activity. Understandably, traders operating as if they were legitimate businesses particularly aggravated law enforcement and FACT (author interview with NETS). This group structure would be most similar to the organised crime groups (OCGs) that FACT (2017a) claimed were involved in the ISD trade because they involved several people working together. Organised crime is explored further in section 6.5. Those who worked with others were more committed to making a profit than sole traders as they had a larger customer base. Those who worked with a partner (e.g., Dodds and Graham) sold within multiple towns within one region (IPO, 2019) whereas sole traders (e.g., Thompson) operated within one town.

These three dimensions demonstrate how complex and diverse the retail level distribution of ISDs are as they demonstrate how trading varies by who they sold to, where they sold, and organisational structure. I identify similar dimensions in which differences can be observed in relation to my ISD traders in chapter six.

Boxed-text 2.1 Brian Thompson and Julian Allen

Thompson and Allen were two ISD traders whose arrest and prosecution garnered lots of media attention. They were sentenced together and are described here as a combined case study. Allen ran a business called 'GeekyKit' where he set up a website and physical stores in Durham and Middlesbrough to sell PABs directly to consumers and other businesses for resale (Maxwell, 2017). Allen advertised in his shop storefront that he was selling streaming boxes that provided free access to subscription-based content and Pay-Per-View TV (see image 2.1).

Image 2.1: GeekyKit.com store front



(Maxwell, 2016c)

Image 2.2 Allen's advertisement



(Image provided by NETS from their raid of GeekyKit business premises)

When NETS were collecting evidence against Thompson and Allen for prosecution, they seized several boxes. In addition to selling PABs, 'Geeky Kit' also offered a **fitting service**. Allen charged £100 per PAB and £120 for a fitted PAB (image 2.2).

In June 2015, police and NETS officers carried out raids on several PAB sellers in Northeast England (Maxwell, 2015b), including Allen. Allen was the first PAB seller that had been arrested to be named in the media resulting in his case appearing in multiple news outlets including The Teesside Gazette (Guillot, 2015) and Torrent Freak (Maxwell, 2015b). In October 2017, Allen was charged (see table 2.2), the courts stated that Allen made more than £150,000 from selling PABs over a 30-month period (Maxwell, 2017j). Allen argued that his businesses were not responsible for the copyright-infringing content that his customers received via the boxes his company supplied. He denied criminal responsibility and blamed the internet:

'We do not control the content that is accessible on the internet via the product that we sell. We are currently working with Trading Standards to ensure that we can sell our products whilst adhering to UK copyright laws' (Maxwell, 2017J).

Thompson sold PABs supplied by Allen directly to private household consumers. He owned a second-hand electrical supply shop in a shopping mall in Middlesbrough and selling PABs was just added to that as another product he sold. Thompson also advertised android boxes on Facebook. Thompson advertised in his shop storefront that he was selling streaming boxes that provided free access to subscription-based content and Pay-Per-View TV. He used the phrase 'Free English and International TV' (see image 2.3).

In October 2015, Thompson was selling PABs on Facebook, describing the boxes as a 'TV entertainment centre' and 'stream box' (see image 2.4). Even though he had been caught selling PABs (in June 2015), he had not learned his lesson. In March 2016, although he was no longer selling PABs, he started advertising android boxes without illegal modifications on his Facebook site costing £69 (image 2.4). He encouraged his customers to install illegal

modifications on their android boxes (see image 2.5) using the phrase 'add your own add-ons for all live channels' (Maxwell, 2016c). Thompson's actions were arguably assisting or encouraging (see sections 44-46 Serious Crime Act 2007) the commission of Section 11 of the Fraud Act (2006) Dishonestly obtaining services.

Image 2.3: Tomo TV storefront



(Maxwell, 2018b)

Image 2.4: Brian Thompson's Facebook page

 **Free, tv, stream, box** shared their album. ▼
31 October 2015 · 🌐

THE NEW TV ENTERTAINMENT CENTER only £69 BARGAIN !!!!!
,WE GIVE 30 DAY MONEY BACK GAUARANTEE ON OUR STREAM BOX !
YOU GET ALL THESE MOVIES & TV SHOW BOX SETS ! AND MORE ! not
just a tv box for all your channels ? you get every film and tv show box set
out ! latest CD,s out ! live music tv >> updates itself on the internet ! no dish
needed ! ,,,ALL TV SETS WITH 12 MONTHS GUARANTEE
Various 2nd Hand TV's from £49 - £149 WHILE STOCKS LAST !
TEL 01642 657261 open 1pm till 5pm mon/sat / TEL TOMO 07443079040



(Maxwell, 2016c)

Image 2.5: Thompson's Facebook Page

ADD YOUR OWN ADDONS FOR ALL LIVE CHANNELS

FREE

1000'S OF FILMS BOXSETS RADIO CD'S MUSIC ITV PLAYER BBC PLAYER

OUR NEW TV BOX NOW WITH ALL LIVE CHANNELS PLUS FILMS, TV SHOWS, BOXSETS. COMES WITH AN EASY ONLINE UPDATER (ALSO QUICK FIX) WORKS OFF INTERNET, NO DISH NEEDED!

Call: 07443 079040

The advertisement features a grid of logos for various TV channels and services, including Sky Sports 1-5, BT Sport, sky TV, sky Z, BBC ONE, BBC TWO, BBC THREE, BBC FOUR, sky LIVING, sky LIVING HD, itv 1, itv 2, itv 3, itv 4, FOX, 4, 5, 5*, Red Bull, Dave, COMEDY CENTRAL, GOLD, FIVE, FIVE, 5*, ESPN, PREMIER LEAGUE, PREMIER LEAGUE, PREMIER LEAGUE, PREMIER LEAGUE, PREMIER LEAGUE, eden, HISTORY, FILM, TRUE MOVIES, TRUE MOVIES, BBC NEWS, sky NEWS, CNN, Discovery, SC, and Curiosity.

(Maxwell, 2016c)

Thompson was raided and arrested in June 2015 but continued trading on social media. Interestingly he changed his business premises and business name from *Free.TV.Stream.Box* to *Cut price Tomo's TVs* (Maxwell, 2017l). In October 2017 Thompson was sentenced (see table 2.2).

Trading PABs can clearly be a profitable enterprise because Thompson made an estimated £40,000 from selling them (Maxwell, 2017l). Presumably, this estimation was made based on Thompson's confiscated diary: 'when Thompson was raided in June 2015, a diary revealed he'd sold 159 devices in the previous four months, sales which generated £17,000 in revenue.' (Maxwell, 2017l).

This shows that ISD traders risk having their written records of customers and sales seized by law enforcement in the event of a search and used as evidence against them at sentencing. Such records may result in traders receiving a proceeds of crime order under POCA (2002), as several ISD traders have (IPO, 2020; Maxwell, 2018b).

2.4 Summary

The ISD market emerged and then expanded due to a combination of factors particularly a consumer demand for this product and traders' desire to

meet this demand to make a profit. Private households and pub landlords provided demand for illegal streaming services as they were cheaper than the legal equivalent. Another key contributing factor was the media in England initially portrayed the trade as a legal grey area and an initial lack of policing and prosecutions of ISD traders, which as will be shown in chapter six, contributed to traders perceiving the trade as a low-risk activity.

The ISD retail market takes different forms with lots of commonalities across types as well as some important differences. Traders differed based on who they sold to, whether they sold to private households or other ISD traders or commercial premises, or a combination of these. They also differed by where they sold: online or offline. Another difference was based on organisational structure. Some were sole traders; others had a partner, and others worked within a criminal group.

3- Literature review: a review of illegal markets

This study conceptualises the trade of ISDs as an illicit market. There has been a lack of academic investigations into the ISD trade and there is no ISD-specific literature to review. Consequently, this review focuses on the illegal markets literature more broadly, with a particular focus on retail markets. This study focuses on offline ISD traders operating in a geographical locale therefore, literature on offline rather than online markets is reviewed.

I am drawing on literature on all illegal markets, although there is more research on drugs markets than in other areas, and as such drugs markets literature features heavily in this review. In the UK and internationally there is a large volume of literature on the retail-level distribution of illegal drugs (May and Hough, 2004; Desroches, 2007), but only a small (albeit, growing) body of literature on the distribution of pirated (Antonopoulos et al., 2011; Potter, 2015) and counterfeit goods (Antonopoulos et al., 2018; Hall and Antonopoulos, 2015, 2016; Hall et al., 2017; Spencer et al., 2018; Treadwell, 2012).

This review is divided into themes that correspond with the study's research aims of understanding the ISD market's structure and participants, supply and demand, and the issue of risk in ISD markets. It begins by situating the ISD trade within the illegal markets literature. It then describes market structures and explores why illegal markets emerge. Finally, it explores traders' perceptions of risks involved in illegal markets.

3.1 Situating the ISD trade within the illegal markets' literature

The ISD trade is a new illegal market but part of the wider digital piracy market. Understanding the ISD trade as an illicit market requires applying a conceptual framework to understand what an illicit market is.

Legal and illegal markets have similarities and differences. Markets are places where goods or services are voluntarily exchanged for money under the conditions of competition (Aspers, 2011; Beckert and Wehinger, 2013:3). There are different definitions of illegal markets; Arlacchi (1998:203) provides a useful starting point: 'Illegal markets may be defined as places within which goods and services are exchanged whose production, sale and consumption are forbidden

or strictly regulated by the majority of national states and/or by international legislation'. The main difference between legal and illegal markets is that the trade of goods and services within illegal markets is forbidden by law. As crime is a socially constructed concept that is defined by the law, what products and services comprise an illegal market differs between countries and cultures, and changes over time (Beckert and Wehinger, 2013:3). Following this, a key difference is that illegal market operatives need to avoid detection. Further, illegal markets are unregulated which means that trust becomes more important, and violence can become a feature without legal frameworks for settling disputes or regulating competition (Beckert and Wehinger, 2013).

There are different ways markets can have an element of illegality, whether it is the product itself or the trade of the product. Subsequently, many authors have offered typologies of illegal markets (e.g., Beckert and Wehinger, 2013; Beckert and Dewey, 2017; von Lampe, 2016; Webb et al., 2009). Of these, Beckert and Dewey (2017) created the most comprehensive typology, identifying five types of illegal markets according to the specific offences committed. Fitting markets into such types is useful for analysis and it affects the kind of policy options that might be available (Naylor, 2003:87). When goods have a parallel legal market, such as ISDs, it is impossible to stop the manufacturing of the product as this would unintentionally affect the legal market as well. For these reasons, it is essential to identify which market type the ISD trade fits into.

3.1.1 Beckert and Dewey's typology of illegal markets

Beckert and Dewey's first type involves markets where the traded product or service is completely illegal to produce, trade and consume, and where no parallel legal markets exist (Beckert and Dewey, 2017:4).

The second type is when the product itself is legal, but the market exchange is illegal because the sale of stolen goods is illegal. However, purchasing the product is only illegal if the theft is known to the buyer (Mackenzie, 2014).

The third type is when 'market transactions can take place in separate markets or become part of the markets in which the authentic product is being

sold' (Beckert and Dewey, 2017:4). Manufacturing counterfeit products is often not illegal, but trade in these products is.

The fourth type of illegal market involves legal products or services whose trading is outlawed. The market exchange of these goods and services is viewed as morally offensive. Often transactions within this market take place separate from the legal economy (Beckert and Dewey, 2017:4).

The fifth type of illegality is when 'actors violate existing regulations during the production or the exchange process' (Beckert and Dewey, 2017:5). Trades within this category involve a legal-illegal crossover (von Lampe, 2011). Although it is not part of their original typology, research shows that there is more public tolerance and social acceptance towards market types three and five (Antonopoulos, 2006a; Wall and Large, 2010), the importance of this is explored further in section 3.3.1.

3.1.2 Conceptualising the ISD trade

The ISD market is interesting as it does not fit neatly in the existing typology, although it shares features of type five as the ISD trade involves a type of rule violation.

3.2 Market structure

Like most (legal and illegal) markets, it is rare for ISD consumers to purchase their products directly from the manufacturer. There must be a supply chain linking the manufacture of ISDs, which usually occurs on a large scale, to the consumers. There are different stages in any supply chain. For example, 'the counterfeit product supply chain is, like most others, comprising [of] manufacturing, transportation, storage, and distribution/retailing' (Antonopoulos et al., 2018:18). These stages are found in the supply chains of other illegal markets (Von Lampe, 2016; Potter, 2009; Pearson and Hobbs, 2001; Antonopoulos and Papanicolaou, 2018), and we would expect the ISD supply chain to be similar.

Supply chains usually have several links, and drug markets are often modelled as having several market levels and being shaped like a pyramid. Therefore 'a good starting point for modelling drug markets is to think in terms

of vertical stratification' (Potter, 2009:53). Pearson and Hobbs (2001, 2004) identified a four-tier structure for UK drugs markets: importation, wholesale, middle-market drug brokering, and retail level dealing. However, 'these are not meant as rigid categories since...roles can be interchangeable' (Pearson and Hobbs, 2001:vi). For example, the roles of supplier and buyer can be interchangeable at wholesale and middle market levels. 'Individuals occupy different market levels at different times' (Pearson and Hobbs, 2001:2). Additionally, not all drug supply chains start with importation - in the domestic cannabis market, for example, cannabis is grown within the UK (Potter, 2010). Further, there will not always be four links in the supply chain because some individuals move between roles or occupy multiple roles at the same time (e.g., import and wholesale), and some supply chains comprise of more than four links (see also Potter, 2009; Taylor and Potter, 2013; Johnson 2003). Beyond drug markets, this general structure has been identified in the counterfeit alcohol trade (Spencer et al. 2018), and the illegal tobacco and cigarette markets (Von Lampe, 2005a, b; Antonopoulos, 2006).

3.2.1 Typologies of retail markets

This study focuses on the retail-level distribution of ISDs, as such it is the retail level of other illicit markets that are the focus here. The key difference between wholesalers and retail-level dealers is that wholesalers 'market large quantities of illicit drugs to other dealers' whereas retail-level dealers sell directly to end-users (Desroches, 2007:828). The following focuses on how transactions occur. Within any market, whether legal or illegal, there is a requirement that buyers and sellers can find each other to trade goods (May and Hough, 2004). By reviewing literature on the distribution of illegal goods at the retail level I identified three broad approaches to constructing typologies of retail markets, based on who traders sell to (the relationship between the trader and the customer), where the trader sells, and the trader's motivation.

A useful starting point in classifying the retail distribution of an illegal product is to use May and Hough's (2004) typology of retail drug markets distinguishing between open, semi-open, and closed markets. They focus on access to the market based on trading relationships. Within closed markets, sellers offer goods only to buyers they know and trust, or if a trusted person

vouches for them, whereas in open markets sellers offer goods to anyone willing to buy, without any prior introduction and with few barriers to access. Traditional 'street' drug markets are an example of open markets. Closed markets involve trading from safe or private places such as the seller's or customer's house (Coomber and Moyle, 2012). There is a grey area between the two categories: 'semi-open markets' including trading in and around pubs and clubs (Pearson, 2007). Researchers within other illegal markets, including counterfeit goods and tobacco, have identified open and closed-market traders although they do not use these terms (Antonopoulos *et al.*, 2018; Hall and Antonopoulos, 2015, 2016; Hornsby and Hobbs, 2007; Potter, 2015). It has been well established within the study of illicit markets that friendship, kinship, and ethnicity help to create trust: research shows that traders often prefer to sell to people within their social circles (Adler, 1993; Decker and Chapman, 2008; Dorn, *et al.*, 2005; Iani and Reus-Ianni, 1972; Morselli, 2001; von Lampe and Johansen, 2004a, b; Zaitch, 2005).

A second way to classify the retail distribution of an illegal product is by exploring where (the location) dealing happens. There are two dichotomies: public versus private and online versus offline. Sandberg (2012) identified three types of cannabis distribution markets based on where dealing happens: private, semi-private, and public. Curtis and Wendel (2000) identified a similar typology of drug dealers. And Von Lampe (2011) identified a similar typology as Sandberg's (2012) on the retail distribution of contraband cigarettes therefore demonstrating Sandberg's (2012) typology can be applied to other illegal markets such as the ISD market. When combined May and Hough's (2004) and Sandberg's (2012) typologies provide a useful starting point for understanding the retail market of an illicit product such as ISDs.

Due to the emergence of online marketplaces which provide opportunities for the trade of licit and illicit goods, there is another dichotomy of distribution markets by location: online and offline. There are different online markets including cryptomarkets, social networking sites and online marketplaces. Online markets can be open or closed and provide new opportunities, challenges, and approaches to illegal markets. In the last decade, studies on drugs and counterfeit goods markets have shifted their focus from

offline to online markets. This shift is likely to reflect the broader shift in these trades from an offline towards an online marketplace (Barratt and Aldridge, 2016; Martin, 2014; Antonopoulos et al., 2018; Hall et al., 2017; Lavorgna, 2015a, b; Treadwell, 2012; Wall and Large, 2010). Although online markets for ISDs exist, this study researched offline markets as that is what I had access to.

A third approach to producing typologies of retail distribution markets is based on traders' motivations. Motivations can be understood on a spectrum with profit-driven traders at one end and non-profit motivated, including social supply dealers, at the other end. Social supply dealers are a special case of closed-market trading, and social supply is common within offline retail drugs markets, particularly for cannabis markets (Coomber and Turnbull, 2007; Decorte, 2010; Hough et al., 2003; Potter, 2009; Pearson, 2007; Werse, 2008).

These three types of typology demonstrate how diverse the retail level distribution of illicit goods are, demonstrating how trading varies by customer-supplier relations, location, and trader motivations. The three ways to understand an illegal retail market often relate to each other. Profit-driven traders are more tolerant of risk and therefore operate within open markets and their trading is more likely to occur in public places but that is not always the case. As closed market traders (CMTs) sell to trusted individuals, their transactions are more likely to occur within private places. Some of the variations within these three types of typologies also relate to different drugs/products being traded - e.g., that social supply mostly applies to cannabis and some other 'softer' drugs. Social supply dealing in studies of domestic cannabis cultivation 'occurs between non-strangers or friends, and is non-commercial or not-for-profit' (Potter, 2009:54) - and is more likely to happen in private places. The three types of typologies identified can also relate to culture; in Sandberg's (2012:1133) study of the cannabis market he identified 'a non-commercial cannabis culture in private markets and a violent street culture in public markets'.

The open and closed distinction is mostly only relevant to retail markets, which is the focus of this study. Due to the risks involved markets at higher levels are rarely open. Subsequently, most studies of upper-level markets show

dealers operating in closed markets (Adler, 1993; Desroches, 2007; Salinas-Edwards, 2013; Taylor and Potter, 2013). Whether a dealer chooses to operate within open or closed markets will be heavily influenced by their assessment of the markets' risks, including law enforcement agencies' response to that market. Markets also, to a lesser extent, change due to developments in technology (May and Hough, 2004). Open markets sometimes change into closed markets to reduce the risk of detection (Hough and Natarajan, 2000). The widespread use of mobile phone technology, followed by the widespread consumer shift towards the online marketplace resulted, in some drugs markets shifting from closed to open markets (May and Hough, 2004; Aldridge and Décary-Hétu, 2014). These factors may explain why closed markets dominate contemporary UK drugs markets (Moyle and Coomber, 2015) - although open markets remain, particularly in relation to 'harder' (i.e., more 'addictive') drugs such as heroin and crack-cocaine. Most recently drug dealers have been using encrypted messaging apps on smartphones to communicate with their associates and customers as these are perceived as low-risk communication strategies (BBC, 2021a; Moyle et al., 2019). Illegal markets will also adapt and respond to wider economic and social factors that could influence supply and demand (May and Hough, 2004).

3.2.2 Organised Crime: organisational structure

Now that I have described retail markets, the following describes the organisational structures and actors involved in illegal markets, arguing that a diverse range of actors, networks and groups are involved beyond hierarchically structured Organised crime groups (OCGs). Contrary to law enforcement's beliefs, research has shown that British drug markets often do not have a pyramidal structure with a few hierarchically structured OCGs, with a 'Mr Big' or 'Mafioso' in charge sitting at the top and controlling the market. Rather there are many individuals and small loosely structured groups involved in drug trafficking (Dorn et al., 1992; Matrix Knowledge Group, MKG, 2007; Morselli, 2001). Similarly, Pearson and Hobbs (2001:vi) did not identify hierarchically structured OCGs involved in middle-market drug distribution. Instead, they found that trading relationships involved 'networks or partnerships of independent traders or brokers'. Similarly, Reuter (2000) in his study of drug

traffickers in America also found the same thing. Drug markets at the importation and wholesale level are populated by three types of organisational structures: Sole traders, partnerships, and collaborative networks of 'loosely organised groups of individuals undertaking transactions together' (MKG, 2007:32). At the retail level, drugs markets are dominated by networks of individuals and independent entrepreneurs (Windle and Briggs, 2015a, b; MKG, 2007; Moyle and Coomber, 2015). Furthermore, 'the more an operation is transnational in scope, the less likely it is that traffickers and dealers are part of a hierarchical structure' (Antonopoulos and Papanicolaou, 2018:53) because crime groups cannot control a global marketplace. (See Paoli, 2002; Kleemans, 2014 for a detailed critique of the mafia model of organised crime).

Similar findings have been identified in studies of other illegal markets. Hierarchical, rigid structured crime groups are rarely involved in the illicit cigarette and tobacco trade within the UK and Europe. Instead, a variety of actors are involved including networks of individuals, unstructured groups, and individual entrepreneurs (Antonopoulos, 2007; 2008a, 2009; Antonopoulos and Hall, 2016; Van Duyne 2009; Hornsby and Hobbs 2007; Von Lampe, 2003, 2005 a,b, 2007, 2011; Van Dijck, 2007; L'Hoiry, 2013). Similarly, in the 'counterfeiting business, some actors may be working in/for OCGs but most participants in the UK are not manipulated by so called organised criminals as official accounts suggest' (Antonopoulos et al., 2020:363). The UK counterfeits goods trade at all market levels is dominated by independent entrepreneurs (Antonopoulos et al., 2020).

Law enforcement have also claimed that traders are forced into illegal markets by violent organised criminals with a global reach. Contrary to this belief research shows illegal traders enter the market voluntarily and are dependent on local trading and social relationships (Hobbs, 1998). For example, in the UK most drugs are sold within community settings (Hales and Hobbs, 2010). Trading relationships within illegal markets are formed based on trust rather than coercion. Subsequently, traders work with friends, family, work colleagues, and people they grew up with (Fraser and Hobbs, 2017; Hornsby and Hobbs, 2007; L'Hoiry, 2013; Von Lampe and Johansen, 2003; MKG, 2007; Taylor and Potter,

2013). The same studies also show that traders enter illegal markets due to recommendations from these trusted groups.

Now I will describe the rare occasion when OCGs are involved in illegal markets in the UK. 'In some contexts, specific parts of drug markets may be controlled by hierarchical structures that involve an importer/boss holding control of an area; underboss; small-scale wholesaler; and retailers' (Antonopoulos and Papanicolaou, 2018:53). But when OCGs are involved in UK drugs markets they usually operate at the importation, production, and wholesale level rather than operating at the retail level (Dorn et al., 1998; Hobbs, 1995, 2013; Hornsby and Hobbs, 2007; May and Hough, 2001; Pearson and Hobbs, 2001; Ruggiero, 2000). How common this is partly depends on how you define organised crime. Therefore, OCGs involvement in illegal markets is not significantly relevant to my review or study of retail markets. When OCGs are involved in illegal markets in the UK they tend to be in the form of family firms who control most of a market in a geographical area (Hobbs, 2001a; Antonopoulos and Papanicolaou, 2018:23). I found that family firms were not involved in the ISD markets I studied therefore they are not discussed further.

3.3 Why illegal markets emerge

From an economic perspective, markets emerge when there is both supply and demand for a good or service (Arlacchi, 1998; Beckert and Wehinger, 2013). They grow (or shrink) if supply and demand increase (or decrease). They may evolve (in ways other than changing size) for lots of reasons. Research has shown that illegal markets are generally demand-driven (Beckert and Wehinger, 2013).

Developing a full understanding of why markets come into existence requires researching both supply and demand factors because you need both for a market to exist (Adler, 1993; Hall and Antonopoulos, 2016; Hornsby and Hobbs, 2007). Yet there is a lack of research on illegal markets that studies both perspectives. For example, when Staake et al., (2003) reviewed the literature on the counterfeit goods trade they found that researchers tend to focus on either the supply (sellers/dealers) or the demand (buyers/users) side, but not both - although Hall and Antonopoulos's (2015) study of the counterfeit

medicines trade is a notable exception. Studies on illegal drugs markets also tend to focus on either the supply or demand side (Adler, 1993; Hall and Antonopoulos, 2016). The main reason studies in illegal markets do not research the market as a whole is likely access. Other reasons relate to the research questions studies are trying to answer; often they are not researching why an illegal market has emerged, but focusing on other aspects of an existing market. Subsequently, there is a lack of literature explaining why illegal markets emerge, which is useful for my study as it gives an area to explore which is relevant beyond the ISD market. Suppliers and consumers will enter an illegal market when there is a motivated offender, an opportunity to commit crime, and a willingness to break the law (Beckert and Wehinger, 2013). The following discussion reviews the literature on motivations for entering illegal markets from the demand and supply perspectives.

3.3.1 Demand dimension: Consumer's motivations

Beckert and Dewey (2017) explain that the main reason consumers demand illegal products differs depending on whether the product has an equivalent legal market. Sometimes people get involved in illegal markets because that is the only source of whatever they want to buy. This relates to the typology discussed earlier in the chapter: For goods that are only available illegally, such as hard drugs, there is no competition between legal and illegal markets therefore consumer's rationale for participation in illegal markets is not about competition or economic factors.

For goods and services available legally, and fit into Beckert and Dewey's (2017) types three or five, the question is why people buy the illegal instead of the legal version. In answering this question, research has shown the main reason buyers purchase goods illegally is because they are 'rational economic actors' (Williams and Martinez-Perez, 2014:4) in search of a low price. Illegal markets are cheaper than the legal equivalent. This is evidenced by consumer attitude surveys on the counterfeit goods market (Bloch et al., 1993; Matos et al., 2007; Moores and Dhaliwal, 2004; Tom, et al., 1998; Wee et al., 1995; Wang et al., 2005) and the illicit tobacco trade (Wilshire et al., 2001; Stead et al., 2013).

However, Von Lampe (2006) argues that economic factors alone do not always fully explain demand for an illegal product that has an equivalent legal market. There are social factors to consider, such as the public's attitude and tolerance towards an illegal trade (Becker and Dewey, 2017; Von Lampe, 2011; Mackenzie, 2014). There is significantly less 'social stigma' (Sykes and Matza 1957) attached to trades within types three and five, such as the trade of contraband or counterfeit goods, compared to trades within type one, such as hard drugs (Antonopoulos, 2006a; von Lampe, 2011; Stake et al., 2013; Wee et al., 1995; Beckert and Weighner, 2013; Mayntz, 2017; Joossens and Raw, 1998; Wall and Large, 2010; Wilshire et al., 2001).

Not only does the legality surrounding a product and whether the buyer is aware the product is illegal affect consumer attitude towards a product – and traders of that product – but the location where a trade occurs can affect this too. Numerous ethnographic studies on criminal behaviour have shown that within economically-deprived neighbourhoods there is a culture in which the trade of all illegal goods, especially stolen goods, is viewed as normal and acceptable (Foster, 1990; Hall et al., 2008; Hobbs 1995; Parker 1974). This culture results in illegal markets flourishing in these areas because traders are less likely to worry about others informing law enforcement. These studies suggest that when researchers want to understand the demand for illegal goods, such as ISDs, within economically-deprived neighbourhoods, the researcher must understand the local culture.

Not only are ISD users purchasing an illegal product they are also engaging in digital piracy. There is a large volume of quantitative studies explaining why users engage in digital piracy via downloading or sharing digital files. Research has successfully applied mainstream criminological theories to explain digital piracy including social learning theory (Hinduja and Ingram 2008; Higgins et al., 2006); techniques of neutralisation theory (Hinduja, 2007; Morris and Higgins, 2009), and (self-)control theory (Higgins et al., 2006; Higgins *et al.*, 2008). The notion behind this research is that anti-piracy policies will be more effective if there is an understanding of why people illegally download digital files (Ingram, 2014). Some consumer attitude surveys have shown that, among other factors, people engage in illegal downloading because the illegal market is

free while the legal market is expensive or some video content is unavailable legally in the country of viewing (Higgins et al., 2006; Higgins et al., 2008; Hinduja and Ingram 2008; Hinduja, 2007; Miyazaki et al. 2009 Morris and Higgins, 2009).

3.3.2 Supply dimension: traders' motivations

Illegal markets are usually demand- rather than supply-led (Dwyer and Moore, 2010; Van Duyne, 1993). People want illegal products and 'according to that fundamental rule of economics, where there is demand, supply will follow' (Potter, 2009:53). Therefore, to complement the previous discussion of consumer motivations for entering illegal markets, the following reviews suppliers' motivations. Why criminals enter an illegal market as suppliers primarily relates to profit and can be understood best through a rational actor framework (see section 3.4).

A useful way to conceptualise entry into retail market cannabis dealing in the UK is to view motivations on a spectrum, where at one end traders are primarily profit-motivated and at the other there is no profit concern at all. But in the middle, there is a grey area where people are pursuing profit but that is not their main motivational driver; other drivers include ideological, political, social, cultural, and altruistic reasons. This spectrum applies to the broader drugs market, as the interplay of motivations can vary by 'market level' - with profit usually being the primary/only factor at the upper level (Adler, 1993; Hobbs, 2013; Desroches, 2005, 2007; Dorn et al., 1992) but with other motivations, including those mentioned above, coming into play at lower (retail) levels (Coomber, and Moyle, 2013, 2014; Pearson, 2007; Potter, 2009, 2010; Hough et al., 2003).

Although this spectrum is discussed in relation to drug markets – particularly, cannabis markets –it is also relevant to other illegal markets. However, research on different illegal markets, including the illicit tobacco market (Hornsby and Hobbs, 2007; Antonopoulos, 2008a; L'Hoiry 2013; Von Lampe, 2006), the cigarette smuggling trade (Van Duyne, 2003a;2006 von Lampe, 2003; Antonopoulos, 2008b), the counterfeit goods market (Antonopoulos et al., 2018; Hall and Antonopoulos, 2015; 2016; Treadwell,

2012), and the pirated goods market (Antonopoulos et al., 2011; Potter, 2015), has shown that the main reason people enter an illegal market as a trader is the pursuit of profit. Thus 'actors engaged in illicit markets appear to be motivated by the same goals usually ascribed to legal businesspeople: the pursuit and re-investment of the highest profits possible' (Arlacchi, 1998:3). This suggests licit and illicit traders are similar. Similarly, in the digital piracy market, at one end of the spectrum there were money-orientated pirated DVD traders who charge for their product (Potter, 2015; McDermott, 2012; Antonopoulos *et al.*, 2011) and at the other end there were those who distributed pirated content via file sharing software for free (Chaudhry et al., 2011).

I will explore this more deeply by describing the profit-motivated end of the spectrum. The term criminal entrepreneur has been commonly applied to describe deviants involved in trading illegal goods for profit (For further discussions on deviance see Adler and Adler, 2011). Ethnographers have used the term to describe tobacco bootleggers (Hornsby and Hobbs, 2007), traders of counterfeit goods (Antonopoulos et al., 2011; Treadwell, 2012), thieves and conmen (Polsky, 1969), and drug dealers (Adler, 1993). Theorists have also used the term to describe profit-driven deviants (Becker, 1963; Gottschalk, 2010; Smith, 2009; Ruggiero, 2013; Webb et al., 2013). In these studies, an entrepreneur is someone who is flexible, adaptive, and innovative. Innovation involves identifying and exploiting new business opportunities to make a profit, such as a gap in the market, or developing new methods of operating (Adler, 1993). But, not all profit-driven suppliers are entrepreneurs, as lots work with or for those who might be seen to be entrepreneurs, including those who work in organised crime groups (OCGs) but are not the 'leaders' of those groups (Antonopoulos et al., 2018). Money-orientated illegal traders can be further divided by how they intend to spend their illicit earnings. Some traders enter illegal markets to make money to re-invest in other legal or illegal enterprises and view crime as business, others are in pursuit of a hedonistic lifestyle, and others trade as a means of survival (e.g., to pay bills or clear debts) (Adler, 1993; Hobbs, 1995; 2013; McDermott, 2012; Murphy et al., 1990; Potter, 2010; 2015).

At the opposite end of the spectrum are altruistic dealers. These are primarily motivated by social factors such as to 'help out a friend' and are subsequently labelled as 'social supply dealers' (Coomber and Moyle 2013; Hobbs, 2013; Pearson, 2007; Potter, 2009). Hough et al., (2003:36) define social supply dealing as a 'non-commercial (or non-profitmaking) distribution between non-strangers'. It also includes 'user-dealers' who are drug addicts who only trade to feed their drug habit (Coomber and Moyle, 2014; see Potter, 2009 for a conceptual debate surrounding the term social supply). Social supply dealers are common within the retail-level cannabis market. They include those who grow cannabis for others to be used as medication or as a recreational drug (Potter, 2010). The research on social supply dealers tends to focus on cannabis and soft drugs (Coomber and Turnbull, 2007; Coomber et al., 2016; Taylor and Potter, 2013) and there is some question of whether it would apply to other types of drugs –or to ISD markets.

3.3.3 Non-economic factors to explain why illegal markets emerge

The economic perspective of supply and demand has been heavily criticised for providing a too simplistic view to explain why illegal markets emerge (Dwyer and Moore, 2010; Arlacchi, 1998). '[The perspective] does not explain why there are such great variations in the demand for illegal goods and services and why people are willing to pay for illegal goods and services in the first place' (von Lampe, 2016:220). The economic perspective fails to consider other factors including changes within political, cultural, economic, and organisational structures, technological advancements, and legal or policy changes. Studies have shown that these factors have all been associated with the emergence of illegal markets (Adler, 1993; Arlacchi, 1998; Ancrum and Treadwell, 2016; Antonopoulos and Papanicolaou, 2018; Hall, Winlow, and Ancrum, 2008; Hall and Antonopoulos, 2015; 2016; Hobbs, 2013; Hornsby and Hobbs, 2007; Potter, 2010; Von Lampe, 2006). A detailed discussion of each of these factors follows.

Beckert and Wehinger (2013) state that in contrast to legal markets, for an illegal market to emerge conditions other than supply and demand must be met. As mentioned in section 3.3.1, on the demand side, customers either want goods that are unavailable legally, or want to buy goods on an illegal market

because they are cheaper than buying legally. On the supply side, illegal markets emerge because suppliers expect to benefit from the goods sold and can manufacture or distribute the goods while avoiding detection from law enforcement.

For an illegal market to emerge, both customers and suppliers must be willing to take on any risks from law enforcement that the trade may pose (Beckert and Wehinger, 2013). Risk is explored further in section 3.4. People want to avoid the law. Markets are more likely to emerge when risk is minimised - or where motivation to buy outweighs concerns for risk (e.g., 'addiction' in the drugs trade; need in the illegal organs trade). The amount of time and resources law enforcement dedicates to policing an illegal market is a big factor here because if law enforcement are under-resourced this results in less risk for suppliers and customers. Subsequently, they are unlikely to be deterred from committing crime, (deterrence theory is explored in section 3.4). Law enforcement agencies are more likely to prioritise and dedicate more time and resources to markets in which the traded good or service itself is forbidden (e.g., child prostitution) and poses a threat to the public rather than to illegal markets that involve rule violations (e.g., cigarettes or alcohol) (Beckert and Wehinger, 2013; Von Lampe, 2016). Consequently, some illegal markets, particularly tobacco and cigarette markets, emerge and flourish due to a lack of regulation or enforcement of policies surrounding an illegal trade (Reuter, 1983; von Lampe, 2016; Von Lampe, 2011; Van Dijck, 2007).

Legal ambiguity is also a factor that explains the emergence of illegal markets. Within some illegal markets, there is a legal ambiguity surrounding the trade of the product, a blurring of the boundaries between licit and illicit trade (Von Lampe, 2016; Hall and Antonopoulos, 2015; 2016; Van Duyne, 2005). Research has shown that some illegal trades (e.g., the fake medicines trade) have emerged due to a legal-illegal crossover within the products' supply chain. For example, in the fake medicines trade counterfeit products could enter the market alongside the authentic products (Hall and Antonopoulos, 2015, 2016).

Some illegal markets emerge when criminals identify a gap in the law such as when there is a lack of laws or policies surrounding a new activity. This is

particularly the case concerning technology-enabled or internet-enabled activities. As technology advances, criminals are presented with new opportunities for criminality. When computers first emerged there were no laws or policies against activities that were later labelled as computer crimes (e.g., hacking) because the activity was new (Wall, 2007).

Some illegal markets emerge due to differences in laws and policies between countries. The counterfeit and pirated goods market partially emerged due to the differences in copyright laws and anti-counterfeiting strategies between EU member states (Wall and Large, 2010). The criminal entrepreneurship literature demonstrates that a new market, whether legal or illegal, will emerge when suppliers identify a gap in the market (Gottschalk, 2010). For example, the ticket touting market emerged because touts were able to provide customers with tickets that had sold out on the legal market (Moretti, 2019).

As well as the actual risk of getting caught or punished, or receiving a criminal record, for an illegal market to emerge both customers and suppliers must be willing to justify or disregard any moral judgement, labelling or stigma attached to that illegal trade (Beckert and Wehinger, 2013). Therefore, when a study (such as this one) aims to understand why an illegal market (the ISD market) has emerged it is essential to consider buyer's and seller's attitudes towards the illegal trade. Sykes and Matza's (1957) techniques of neutralisation (TONs) theory offers a useful framework to explore how ISD buyers and sellers manage their 'deviant identities' and justify their participation in this criminal marketplace.

Some illegal markets, including the illicit tobacco trade and the counterfeit goods trade, have arguably emerged partly because consumers who know they are purchasing illegal products employ TONs to justify their deviant behaviour, including to neutralise the social stigma attached to the activity. Techniques such as viewing a trade as a victimless crime or not a 'real crime' or portraying dealers as 'not real dealers' (Jacinto *et al.*, 2008; Potter, 2009) or by viewing the trade and traders in a positive light - for example, where they believe the product available on the legal market is unjustifiably expensive (Wall

and Large, 2010; Wilshire *et al.*, 2001; Hornsby and Hobbs, 2007; Stead *et al.*, 2013). In contrast, research shows that buyers of stolen cultural objects (e.g., antiquities dealers), who are deceived into believing the product was acquired legitimately, do not apply TONs and view looters and traffickers of stolen cultural objects and the trade of cultural objects in a negative light (Mackenzie, 2014). They hold these views because these products have been illegally acquired through theft (Mackenzie, 2014).

3.4 Risk in illegal markets

Participation in illegal markets can be rewarding. Consumers want products or services cheaper than the legal equivalent or that are unavailable legally; sellers can make money, amongst other factors. But, as the trade in such markets is an illegal activity, it also carries risk. This section looks at the rewards, risks, and ways in which traders in illegal markets respond to risk. As discussed, the main reward for consuming illegal goods or services is having them cheaper than the legal equivalent or having what is not available legally. For traders, financial return is also a reward. There can be other benefits as well (e.g., altruism). Benefits particularly the financial ones, increase with more involvement. However, many factors limit sales/profits, which have already been discussed, such as only selling at closed or offline markets. Another big factor here is the risks attached to being involved in an illegal activity. Part of understanding why people get involved in markets is understanding participants as rational actors who have considered risks/harms and benefits/profits.

Rational actor perspectives are about understanding human behaviour as if people weigh up costs and benefits before deciding any course of action (regardless of whether legal or not). They postulate that actors can make rational decisions, and have free will. The starting point for rational actor theories of offending, including Cornish and Clarke's (2006) Rational choice theory (RCT), is the belief that offenders conduct a cost-benefit analysis before engaging in crime. They weigh up the perceived costs (e.g., risk of detection and likely penalty if they are prosecuted) against the perceived benefits (e.g., financial reward) of the criminal activity.

Cornish and Clarke (2006:20-21) stated there are conditions under which decisions about offending are made from a RCT. Offenders rarely know the likely risks and rewards when engaging in crime. Their criminal choices are made spontaneously. Crimes are not planned down to the last detail as criminals are likely to rely on approaches that have been successful previously. When engaging in crime, criminals focus on the benefits rather than the risks; and when thinking about risks they focus on the likelihood of detection rather than the likely penalty. Offenders rarely have a good enough understanding of the law and sentencing guidelines to know their likely penalty (Hornsby and Hobbs, 2007).

Gary Becker criticised RCT because 'as soon as a social phenomenon can be explained by the outcome of rational individual actions, the explanation invites no further questions' (Boudon, 2008:179, citing Becker, 1996). Becker expanded RCT by stating that in addition to rational actions individuals also have irrational actions, he questioned what the benefits and risks are. The rationally acting criminal sees the benefits of participating in crime as greater than the harms (or risk of harms) of being caught or punished.

Rational actor theory has been applied to understanding offending behaviour primarily in relation to deterrence theory, the idea that the threat of criminal justice sanction should outweigh the benefits of breaking the law to stop criminal behaviour from being attractive (Clarke, 2005). According to the theory crime can be reduced by tipping the benefit/harm balance unfavourably; by increasing the risks of crime (e.g., making punishment certain, swift and severe) and decreasing the benefits. A criticism of RCT is that it positions the criminal as only a market actor and consumer with 'nothing but choice and rationality' (Cohen, 1996:5). It ignores other factors, such as their social or economic situation, that might motivate them into criminality.

When applying Becker's (1996) rational actor model to the study of illegal markets, people get involved only if the total benefit (saving money; getting something they need but cannot get legally; moral, political, social, or cultural 'gain' from participation) outweighs the total cost (economic cost; risk of getting caught or harms suffered if they are caught; stigma and other social

disadvantages). The 'opportunistic irregulars' type of retail drug dealer identified by Dorn et al., (1992:43-44) meets most of this description, thereby demonstrating the usefulness of a rational actor model to describe drug dealers and its potential applicability to other illegal markets (e.g., ISD markets). However, there is a lack of supporting evidence to show this theory occurs in practice (Hornsby and Hobbs, 2007). RCT and deterrence theory are applied to ISD traders in the conclusions chapter.

Illegal markets pose risks to the traders involved. My study aims to understand what risks ISD traders identified and what risk management strategies (RMS) if any, traders used to avoid detection from law enforcement. Studies have shown that traders who are involved in illegal markets, whether they are car thieves (Copes and Tewsbury, 2011), drug dealers (Desroches, 2007), or illicit tobacco bootleggers (Hornsby and Hobbs, 2007), identify the potential risks their criminal pursuit poses and employ RMSs to avoid or minimise the risk of detection from law enforcement – and, in many cases, from other criminals. Traders of illegal goods encounter different risks, with law enforcement activity being the most salient threat, but with other risks including competition (and potential violence) from other market operatives (Dorn et al., 1998; Desroches, 2005; 2007).

Within the UK and beyond there has been lots of research exploring the RMS that drug dealers at different market levels have used to mitigate their risk of detection or prosecution and other risks they face (Cross, 2000; Dorn et al., 1998; Desroches, 2005; Desroches, 2007; Hobbs, 2013; Hobbs, 1995; Salinas-Edwards, 2013; Potter and Klein, 2020; Waldorf and Murphy, 2004). In contrast, there have been no studies exploring the RMS that traders of pirated and counterfeit goods use. This is because there has been a lack of studies involving interviews or observation with sellers of counterfeit or pirated goods (see Antonopoulos et al., 2018; Antonopoulos et al., 2011; Hall and Antonopoulos, 2015; 2016; Treadwell, 2012; Potter, 2015 for exceptions). Therefore, this review has focused on studies of risk within the illegal drugs markets. If the ISD trade was positioned within the counterfeit and pirated

goods trade, this study could contribute to understanding the RMS such traders use.

A related issue is that there have been lots of heavily cited studies exploring the risks drug dealers encounter at the retail level, but these have predominantly focused on trading within open market contexts (and many have been conducted in America) (Aitken et al., 2002; Hutton 2005; Jacobs, 1996, Jacobs and Miller, 1998, Johnson and Natarajan, 1995, May and Hough, 2004; Vannostrand and Tewksbury, 1999; Urbanik and Haggerty, 2018). There have been few studies that have explored the RMS that closed market drug dealers use (Potter and Klein, 2020; Salinas-Edwards, 2013; Waldorf and Murphy, 1995). This may be because closed market dealing is itself an RMS in response to the risks posed by open market trading (May and Hough, 2001) and it is easier for researchers to access open market traders (OMTs) than CMTs (Potter, 2009). Managing risk is one of the key factors in the difference between open and closed markets. This study may contribute toward understanding the RMS CMTs of illegal goods employed to evade detection.

Studies on drug dealers have explored the risks that traders perceive when purchasing, storing, transporting, and trading drugs, and they have explored the RMS that traders have employed to mitigate risks at each of these stages (Cross, 2000; Dorn et al., 1998; Desroches, 2005; Desroches, 2007; Hobbs, 2013; Hobbs, 1995; Salinas-Edwards, 2013; Potter and Klein, 2020; Waldorf and Murphy, 2004). At each of these stages, there is a risk of detection, arrest, and prosecution, therefore traders employ strategies to mitigate these risks.

For example, drug dealers believe that when purchasing the product there is a risk that the wholesaler could be an undercover police officer. To mitigate this risk some traders only purchase from wholesalers they trust. When storing the product, they believe there is a risk that law enforcement or rival dealers could detect the storage location. To minimise this risk some traders try to hide the product by storing it in a property registered in someone else's name. Some traders felt that when transporting the product to customers there is a risk of a stop and search, if this does happen some traders minimise the chances of the

product being found by hiding it on one's person or in a concealed compartment of a vehicle.

Research has shown that the perceived and actual risks traders encounter will differ depending on whether they are trading at open or closed markets. When trading within closed markets two characteristics offer traders protection from being detected by law enforcement (May and Hough, 2004). Firstly, as traders only sell to trusted individuals this reduces the risk the customer is a police officer, other law enforcement official, or a police informant. Some drug dealers only sold to people they trusted or had been vouched for to minimise this risk (Broadhurst et al., 2005; MKG, 2007; May and Hough, 2004; Waldorf and Murphy, 1995). Secondly, as transactions only occur in private locations, the transaction could not be visibly seen by others thereby reducing the risk of law enforcement witnessing the transaction. Due to where they trade and who they sell to, CMTs encounter fewer risks than OMTs (May and Hough, 2004; Edmunds et al., 1996). As OMTs sell to strangers in public places they are more visible than CMTs therefore are more likely to be selling to undercover police officers or 'narcs' (Jacobs, 1996:360). Open markets can be accessed by anyone with limited restrictions on who can purchase from traders (Edmunds et al., 1996; May and Hough, 2004). Therefore, OMTs employ RMS to identify whether a stranger is safe to sell to such as by observing their behaviour and physical appearance (Jacobs, 1996). Similar RMS have been identified in the illicit tobacco trade as the illegal drugs trade. To avoid detection from local criminals and law enforcement some illicit tobacco traders operated a small scheme by only selling to people they know (Antonopoulos and Hall, 2016).

3.5 Summary

There are several key points this review of illegal markets identified. Supply chains usually have several links, and drug markets are often modelled as having several market levels and being shaped like a pyramid. Pearson and Hobbs (2001, 2004) identified a four-tier structure for UK drugs markets: importation, wholesale, middle-market drug brokering, and retail level dealing. I identified three broad (overlapping) approaches to categorising retail markets based on: who traders sell to (the relationship between the trader and the customer), where the trader sells, and their motivations.

Illegal markets emerge primarily due to the basic economic principle of supply and demand (Beckert and Wehinger, 2013). But for an illegal market to emerge other factors must be present, both customers and suppliers must be willing to take on any risks from law enforcement that the trade may pose. They also must be willing to justify or disregard any moral judgement attached to that illegal trade (Beckert and Wehinger, 2013). Traders enter illegal markets if the benefits (e.g., profit amongst other factors) outweigh the costs or risks (e.g., risks posed by law enforcement). Consumers enter an illegal market with an equivalent legal market primarily to save money. Suppliers and consumers of illegal goods can be understood best through a rational actor framework. A broad range of actors and networks are involved in illegal markets. Some traders identify risks when trading and respond by applying strategies to reduce them.

4- Methodology chapter

This chapter describes the methods used to understand the ISD market and the actors involved. Ethnography was considered the most suitable approach to address the research aims. There is a lack of consensus within and across disciplines and between nations regarding the term ethnography as anthropologists in America and Britain have different intellectual histories (Brewer, 2000). Ethnography has disciplinary traditions in anthropology and sociology (Atkinson et al., 2001), this study is inspired by the Chicago School approach. There are broadly two definitions of ethnography. Van Maanen (2010:218-219) views ethnography as ‘a methodological approach [involving participant observation as a core method] to and an analytic perspective on social research...concerned with the study and representation of culture’, he takes a process definition. He argues ‘One becomes an ethnographer by doing it [immersing in fieldwork]’. Watson (2010) offers a counterargument and views ethnography as the written report of the study that the researcher creates after data collection, thereby taking an outcome definition. Watson (2010:202) argues that ‘ethnography is not a research method. It is a way of writing about and analysing social life’.

‘Ethnography is the product and not the method of production. Ethnography is most usefully defined as a style of social science writing which draws upon the writer’s close observation of and involvement with people in a particular social setting and relates the words spoken and the practices observed or experienced to the overall cultural framework within which they occurred’ (Watson, 2010:205-206).

I have leaned towards the process definition. Arguably, ethnographic methods are needed to produce a manuscript that provides a cultural understanding of a social group, such methods are suitable when studying deviant groups to which the researcher has opportunistic access. When viewed as a methodology, there are debates about what methods constitute an ethnography (see Atkinson et al’s, 2001 review of the literature). This study takes Hammersley and Atkinson’s (1995) view that ethnography involves participant observation and interview methods as its core methods supplemented by other methods. The ethnographic approach is well established within the study of illegal markets (Hobbs and

Wright, 2006; Hobbs and Antonopoulos, 2014) because it provides 'thick descriptions' (Geertz, 1973) and a 'rich picture of the market (for example the different roles and structures to the market), the marketplace (for example the interactions between actors), and social and cultural norms in individual [illicit] markets' (Ritter, 2005:3). Researching the ISD retail market within a particular locale required understanding the local culture which is best explored using the ethnographic approach (O'Reilly, 2012). Hanging around with participants in their natural settings (pubs) allowed me to understand their culture. Ethnographic studies with buyers and sellers of illegal goods have shown that researching law breakers' perspectives to see events and the social world through their eyes is crucial to understanding an illegal market, such as the distribution and consumption of illegal products (Adler, 1993; Armstrong, 1993; Becker, 1963; Brigg and Gamero, 2017; Goffman, 2014; Hall and Antonopoulos, 2015, 2016; Hobbs, 2013; Polsky, 1969; Willis, 1978; Wilshire *et al.*, 2001; Young, 1971). This study took an established illegal market methodology and applied it to the specific area of ISDs. The ISD market is a hidden market, therefore, the only method of finding out who the actors involved are and why they are involved was by interviewing ISD buyers and sellers.

This study applied observation and interview techniques because when they are combined, they can complement each other (Adler, 1993; Armstrong, 1993; Adler and Adler, 2003; Becker, 1963; Brigg and Gamero, 2017; Fleetwood, 2014; Goffman, 2014; Hobbs, 2013; Polsky, 1969; Potter, 2010; Venkatesh, 2008; Willis, 1978; Young, 1971). For example, when my participants discussed the benefits and limitations of using ISDs I verified their responses with my own experiences: participant observation provided data that I would not have been able to get using interviews. An ethnographic approach enabled a flexible and limited structure to research within the pubs, which allowed 'opportunistic interviews' (O'Reilly, 2012) to occur, providing information I could not get through observation.

Ethnographic methods involve long-term immersion in the field, which allowed me to observe the decline of the ISD market in the towns of study. As I was in contact with some sellers from when they started trading ISDs to when

they ceased, I gained an in-depth account of their experiences trading ISDs over time.

A qualitative approach was essential for applying a theory-building approach. Rock (2001:30) argued that 'it is virtually impossible to anticipate what will be encountered [in research]'. He stated that if the researcher enters the field with a hypothesis, research design, and instruments, this will prevent them from being able to effectively respond to unexpected findings (Rock, 2001:30-31). Therefore, I did not aim to test a specific hypothesis. Instead, I aimed to answer broader research questions which arose from my preliminary review of the literature. As there was not any existing published knowledge, theory, or research on the ISD markets for me to draw on, this allowed themes to emerge naturally from the research setting (Brewer, 2000). This theory-building process was essential as the unexpected themes that did emerge became key themes that shaped my understanding of other aspects, such as market participants' view that crime and deviance is normal.

The chapter begins by describing how I identified and gained access to those committing illegal activities, explains what my observations entailed, and describes the limitations of ethnographic research. Then I discuss the supplementary sources I used to understand the ISD market, including interviews with Trading Standards, media case studies, official sources, observation of online and offline markets, and online forums. Then I describe my analysis approach and ethical issues. Lastly, I explore reflexivity.

4.1 Data collection techniques

As illegal markets comprise supply and demand, I argue that to understand why this ISD market emerged both dimensions must be researched. This requires understanding both traders' and consumers' motivations.

I studied two separate communities of ISD buyers and sellers across two towns. The sample population included two types of buyers of illegal streaming devices: two pub landlords who purchased ISSs to show sports in their commercial premises, and household buyers who purchased ISDs for their personal use. Research groups also included two types of 'consumer', or end-user - and related places of use: about twenty patrons watching illegally streamed

sports in commercial premises, and about 60 household users watching illegally streamed content in private homes. I also knew of 21 suppliers of ISDs. Herein, these groups together are referred to as market participants. These populations overlapped because they were often the same people. It is impossible to give precise numbers of how many buyers, or users were included in my study because I also collected data through informal conversations, participant observation, and second-hand knowledge from key informants in addition to formal interviews with some participants. Precision was not possible because sometimes it was unclear whether buyers or users were talking about the same or a new person. Overall, I gained knowledge of 21 suppliers of ISDs. But, as my knowledge of some suppliers was based on second-hand information, the findings mostly draw on the views and trading practices of suppliers I spoke to. Most of the buyers I spoke to purchased at least one of their ISDs from one of the traders I knew of, and I spoke to at least one of each of my traders' customers. A few of my ISD buyers did not purchase from my traders instead they purchased from eBay. I knew how my traders operated from their own and their customers' perspectives. This can be seen as a form of triangulation/data validation. The demographic and socio-economic characteristics of the sample are described in section 5.3.

Once the appropriate methods were chosen, I identified and gained access to those committing illegal activities. The trade of illegal products such as ISDs is a hidden activity, therefore ISD buyers and sellers constitute hidden populations. One of the main challenges when researching hidden populations is identifying and gaining access to willing participants (Adler, 1993; Copes and Hochstetler, 2010; Hetzer, 2002; Wright *et al.*, 1992). Researchers studying illegal traders have often used their social networks to gain access to participants (e.g., Bourgois, 2003; Hall and Antonopoulos, 2015, 2016; Potter, 2015; Taylor and Potter, 2013; Zhang, 2010) while other researchers have used their job (e.g., Ditton, 1977; Goffman, 2014). This study was similarly opportunistic. As part of everyday life, between 2015 and 2022, I frequented two public houses in Northeast England on weekends and home team football match days. I found that these commercial premises were using ISSs, and that ISDs were being sold within these pubs, which provided an opportunity to research these markets, activities, and trading practices. In one of these pubs, other illegal goods (e.g.,

stolen, counterfeit goods or contraband tobacco) were also being sold. When I began frequenting the pubs as a normal client, before this study, I was unaware landlords were illegally streaming until my social group told me. When the ISD market emerged, and traders began selling ISDs in the pubs of study this became immediately noticeable.

Formal interviews and observations with market participants began in November 2019, after ethical approval was granted. As part of this study, I hung out in two different public houses on weekends until the outbreak of the first lockdown following the outbreak of Covid-19, and made observations and engaged in conversations about ISDs and ISSs with pub clientele and staff. I recommenced fieldwork when lockdown restrictions were lifted. This study is not just a series of interviews it is an ethnography because I was 'hanging around' (Hobbs, 1988) and socialising with my social networks to gain access to ISD buyers and sellers. To expand my sampling pool, I attended these pubs on special occasions such as New Year's Eve, christenings, and birthday parties. In addition to going to pubs I also went to house parties with some participants, further helping me to recruit more people. Socialising with participants to gain access to more people is common in ethnographic research on illegal markets (Adler, 1993; Fleetwood, 2014; Potter, 2010; Venkatesh, 2008; Zaitch, 2002; Zhang, 2010).

My observations helped shape the interviews by identifying both potential interviewees and interview topics. I utilised my established network of contacts within the field (both within and outside of the pub) to identify and gain access to buyers and sellers of ISDs which led to a 'snowball referral effect' (Wright *et al.*, 1992). My market participants were mostly recruited from two towns in Northeast England because I live within that region, but I also spoke to some other people from two further towns which were introduced to me through my social networks. This is a mixture of participants, some I had known socially for several years, others were a continuation of relationships I had built from a previous MA study (Potter, 2015) involving sellers of pirated DVDs while others I came to know quite well more recently. As time passed, some relationships at the pubs progressed from acquaintances to friends, subsequently they began to open up more about

their illegal activities (see section 4.5). But to go into more detail about these relationships would be ethically problematic because it may identify individuals.

I was an insider (e.g., part of the research setting), within the community of study. Adler and Adler (1987) identified three 'membership roles' of ethnographers: a) peripheral member researchers, who refrain from engaging in the core activities of group members; (b) active member researchers, who participate in the core activities of the group without fully committing themselves to the members' values and goals; and (c) complete member researchers, who are already members of the group or who become members during the research. Based on their typology, socially I was a complete member as I was part of the group but in terms of engagement in illegal market activity (e.g., selling and using ISDs) I never moved beyond peripheral. Similarly, socially Adler (1993) started as a peripheral member then as she became accepted as part of the group she became a complete member, but she never became involved in drug smuggling therefore always remained peripheral in terms of their illegal activities. This demonstrates there is a limitation to their typology. Dwyer and Buckle (2009:61) proposed that there is a space between insider and outsider research and 'as researchers we can only ever occupy the space between', similarly I argue there is a space between membership roles.

I recruited participants by passing my details within my network of contacts; this process allowed willing participants to introduce themselves to me. With new contacts I was vouched for by trusted mutual contacts, which was essential for setting up interviews with market participants. Consumers were willing to recommend other consumers for me to interview. Some consumers and traders I spoke to were reluctant to introduce me to the traders they knew due to concerns for their and my personal safety.

There was a lack of viable alternative strategies to identify ISD buyers and sellers other than utilising social networks. I could not find any ISD sellers operating in public places other than public houses. Recruitment of participants through the criminal justice system was not an option because when data collection began, I was only aware of two ISD sellers who had been prosecuted in Northeast England. ISD buyers and sellers could have been identified through

online markets and social media, but I did not have the time to conduct both an online and offline ethnography.

Once potential participants have been identified the next challenge is to recruit them. To recruit active criminals — who are frequently challenging to find since they have nothing to gain from talking to researchers and frequently worry about being discovered — I had to first build their trust (Hobbs, 2000). Ethnographic research with active offenders often requires months or years in the field to gain the participants' trust (Sandberg and Copes, 2012). I was able to overcome this issue because I was already an insider, I had 'privileged access' (Pearson, 1993) and had already gained many potential participants' trust. I also had 'cultural credibility' (Hobbs, 2000) because I shared a similar working-class background as my participants. Being an insider and being friends with some participants provided acceptance amongst the study population and allowed 'free-flowing conversation with a level of intimacy and trust unattainable by an outside researcher' (Taylor and Potter, 2013:397). Participants said they shared information with me that they would not have shared with outsiders because 'you are one of us' (Peter). They held a us versus them mindset, in which outsiders do not understand them and judge them. These views are commonly identified in studies where the researcher is an insider (Dwyer and Buckle, 2009; Kanuha, 2000). Some participants provided more relevant data than others and for some this coincided with a closer relationship. I felt that men were more open about their illegal activity than women, this may be related to my own gender identity or personality, but it is difficult to be sure. It might be that more men were willing to talk to me simply because more men were involved in the ISD market. If a male researcher conducted this study, it may have been the same or it might be different but if it was different this may have been due to other factors (e.g., class or age).

Although insider research offers benefits as it 'enhances the depth and breadth of understanding a population that may not be accessible to a nonnative scientist' it also has limitations as it raises questions about 'objectivity, reflexivity, and authenticity of a research project' because the researcher may go native or 'be too similar to those being studied' (Kanuha, 2000:444). And 'it is possible that

the participant will make assumptions of similarity and therefore fail to explain their individual experience fully' (Dwyer and Buckle, 2009:58).

There are other practical challenges when researching active offenders which I encountered. These include whether to report knowledge of crimes to law enforcement (see section 4.4.1), whether to engage in crimes with participants to gain access (see section 4.1.1), and whether to interview participants when they are intoxicated (Moretti, 2019; Pearson, 2009; Ross *et al.*, 2020; See Sandberg and Copes, 2012, for a discussion of the challenges that arise when researching active offenders). Researching intoxicated people was particularly relevant to my research in pubs.

4.1.1 Observation

There are three interconnected reasons why this study was limited to researching two public houses in Northeast England: access issues, personal safety concerns, and law enforcement action. Firstly, there was an access issue of identifying social clubs and public houses that used ISSs or ISDs as it is not openly advertised. As I knew of two public houses that used ISSs and had pre-existing social relationships with staff and clientele within these establishments this research was opportunistic. Participants told me that social clubs require all visitors to be signed in by a member of the club and it is always only men in the sports lounge where sports are streamed. Consequently, as I am female, social clubs were not explored. Secondly, I could not visit any public houses that used ISSs or ISDs in the towns of study unless I knew people at these establishments due to personal safety concerns. Thirdly, identifying more commercial premises that illegally stream sports was made extremely difficult due to law enforcement action against such activity. By the time ethical approval was granted in November 2019, most of my market participants were only aware of two pubs that still used ISSs, therefore this study took place in those pubs.

Ethnographic studies require researchers to choose between taking a covert or overt approach, each posing challenges. When studying illegal markets, an overt approach is problematic because groups engaging in illegal activity are suspicious of outsiders (Adler, 1993; Treadwell, 2020). However, a covert approach poses risks to the researcher's personal safety. If criminal groups

discover a researcher's identity, these groups may retaliate with violence (Adler, 1993; Potter and Potter, 2020; See Calvey, 2017, for discussion of the ethical problems associated with covert criminological research). As a result, I used a combination of overt and covert techniques to balance these challenges the approach I took mostly depended on my relationship with the participant. With friends I took an overt approach, and with acquaintances I took a covert approach, which led to friends being more open about their illegal activity than acquaintances. Using both methods is common in ethnographic studies on crime and deviance (Potter, 2010; Calvey, 2017). When possible, I aimed to take an overt approach as I wanted to avoid the ethical concerns associated with covert research. When I established new contacts for some individuals it was usually not necessary to consider if, when, and how to inform them that I would like to study them. This was because many participants explained what the study was about when they introduced me to new contacts. Sometimes in the pubs, participants told me to take a covert approach due to personal safety concerns:

'Whatever you do don't tell that person you are doing research he wouldn't take it well. He will answer your questions if he doesn't know he is part of your study because he wouldn't understand. He will think you're a cop' (Peter).

As my research was in public houses, key informants told me that the pub clientele who does not know me may suspect I am a 'copper's nark' (police informant), or an undercover police officer (see Armstrong, 1993:31-32).

Participant observation was essential in guiding the topics to be discussed during interviews with the participants. To understand how ISSs function, the study observed staff working in two public houses where ISSs were used. The aim of these observations was also to understand in what manner such establishments utilised ISS services. This aspect of the observation was overt for pub staff but covert for pub clientele. I asked the pub staff for their verbal consent to be observed using ISSs in the pubs. To complement this observation, as part of everyday life, I overtly observed consumers, who were my friends, using their ISDs in their households with their verbal consent. The purpose here was to comprehend the various types of ISDs, how they function, and in what manner households utilised them. Before I could engage in conversations about ISDs or ISSs I needed to observe how

they worked because my market participants often used technical terms associated with these devices and services. In his study of cannabis growers Potter (2017) also identified how important it is for researchers to understand the jargon used in the illegal market the researcher is studying. If I did not understand the jargon, I would not have been able to understand some of my market participants' conversations.

There was no alternative method that could have been used to achieve these aims, other than gaining first-hand experience by illegally modifying the device myself or purchasing an ISD for my household. Many ethnographers researching crime and deviance have engaged in minor illegal activities with their participants e.g., pitch invasion (Armstrong, 1993; Pearson, 2009), ticket touting (Moretti, 2019) or drug-taking (Adler, 1993; Potter, 2017; Ross *et al.*, 2020; Sandberg and Copes, 2012). This approach was not taken because some researchers (Armstrong, 1993; Humphreys, 1975; Garrett, 2014) have been arrested and prosecuted for engaging in illegal acts with their participants.

I observed the sale of ISDs within two public houses by covertly observing how this transaction was carried out and how traders and their customers interacted during this transaction. I did not observe staff or clientele when ISDs were sold unless they were involved in this transaction. Observing the sale of ISDs offered first-hand and previously unavailable evidence of how traders advertised and sold their products to customers. It was not possible to inform those involved in the sale of ISDs that they were being observed. Blending in is essential when conducting covert research (Polsky, 1969) therefore I sat with people from my social group in each pub which allowed me to covertly observe pub traders without arousing suspicion.

I went to house parties hosted by friends who were participants in this study, attendees were their friends and family members. At these events, we sang on the karaoke and watched live sports on ISDs. I was 'hanging around', socialising with them to recruit more participants this also provided an opportunity to learn about their experiences and attitudes towards ISDs from what I saw and heard. I only observed the host using their ISD. I did not get informed consent from everyone at the party because 'an overt observer may significantly influence how members behave' (Pearson, 2012:20) they may have stopped discussing

illegal activity due to fears of being reported. I only got consent from the people I spoke to. As these social events involved research in private dwellings, there were extra ethical concerns about informed consent and greater expectations of privacy than in public places. For all participants, I strictly maintained their anonymity.

4.1.2 Setting up interviews

I spent a lot of time in the field, but interviews only occurred in a subset of this timeframe. I pre-arranged a time and place for interviews to occur that was convenient and comfortable for both parties. Market participants were interviewed in public houses or cafes. These venues are often used as research sites for interviews and observations on criminal and deviant behaviour (Antonopoulos et al., 2011; Hobbs, 2013; L'Hoiry, 2013; Rawlinson, 2008). Cafes were chosen as an interview site because they were in a different part of town to the pubs where illegal activities usually occur and where the participants might be observed talking to me. Two types of interviews were used in my study, which differed depending on the research setting. Formal semi-structured interviews were used in cafes while unstructured interviews were used in public houses. Interviews were guided by a topic guide: one for sellers and one for buyers (see appendix 1). Where possible, the research was respondent-driven, guided by topics that participants had identified as most important to them. Any new themes that surfaced after each interview were added to the interview guide. When possible, I returned to previous participants to discuss these new topics with them. Most interviews were one-to-one but sometimes I interviewed two people simultaneously as this was more convenient for them. Interviews lasted between twenty minutes and two hours as some interviewees were more open about their illegal activity than others.

There are 'times and places in the subjects' lives that are beyond the ethnographer's reach' (Katz, 1997:399) like in their private lives and when there was a large group of participants talking at the pub about ISDs simultaneously or when some participants went to the bar, toilet or outside to smoke. On these occasions, some of my key informants reported back conversations that they overheard. Within research on illegal activity, it is common for researchers to have additional information that is second-hand, based on interviewees'

knowledge of other illegal traders (Adler, 1993; Pearson and Hobbs, 2003). The problem with second-hand information is that it may not be as accurate as first-hand knowledge because participants may misremember information or glorify events (Copes and Hochstetler, 2010).

All market participants were asked whether I could audio record the interview if not, I took paper-based notes of the key points. As a self-funded PhD student, I transcribed audio recordings myself rather than engaging a transcription service. Each interview was transcribed and anonymised as quickly as possible then the recording was deleted. Some participants refused to be audio recorded because they felt it would amount to self-incrimination. Others were willing to be audio recorded in the pub, but I quickly realised that there was a risk that I may inadvertently record other people's conversations without their consent which would have raised ethical issues. The pub was also too noisy for audio recording participants. I wrote up detailed fieldnotes of interviews and observations as best I could remember as soon as possible and destroyed the original paper-based notes once they had been typed up and anonymised. Fieldnotes involved summarising events and my initial reflections on them. The limitation of recalling and summarising events rather than writing them in real time meant that some information may be lost (Treadwell, 2020).

4.1.3 Validity and limitations of ethnographic research

Due to their tendency to focus on a single population, ethnographic studies are often criticised for lacking generalisability of findings (O'Reilly, 2012; Creswell, 2014). Ethnographic research is micro-focused and 'only useful in very specific contexts only as an illustration of what is happening and occurring in one specific place, at one particular time' (Treadwell, 2020:48). As this study utilised my social networks to gain more participants the sample was not representative of the wider population (UK ISD buyers and sellers). Subsequently, this study's findings cannot be generalised beyond the study population. If the study had been conducted in a pub in a different town or region, such as the south of England, the results might have been different. However, it is impossible to acquire a representative sample of the parent population when researching hidden populations and ethnographic research does not aim for generalisability of findings (Hobbs and Antonopoulos, 2014). To improve the representativeness of

a sample researchers could study multiple populations. However, due to researching hidden populations and active offenders' ethnographers of criminal or deviant groups rarely get the opportunity to access more than one example of their target population (Potter, 2017). I was fortunate enough to have the opportunity to study ISD buyers and sellers within two different towns in the same region. I would have liked to replicate this study and increase my sample size by visiting other public houses in different regions to improve the reliability and generalisability of my findings. However, this was not possible as I was a self-funding PhD student with limited time and resources.

Recruiting contacts from social networks and using snowball sampling could lead to findings being systematically biased (Zhang, 2010; Downes et al., 2016). For example, most of the buyers I spoke to were customers of the traders I spoke to. Participants' experiences were limited to their social networks. However, focusing on several individuals operating in the same broad network enables a detailed understanding of that cultural scene (Taylor and Potter, 2013).

Another drawback of all ethnographic research, particularly ethnographies of criminal and deviant groups is validity and reliability (Treadwell, 2020). Sometimes criminals lie, withhold information to hide their activities, or distort and glorify their acts to impress the researcher (Hobbs, 2000; Sandberg and Copes, 2012; Zhang, 2010). But participants lying is a problem for all qualitative researchers including those researching law enforcement (Bryman, 2012). To improve the reliability of interviews and to test whether market participants were telling the truth I cross-checked interviewees' responses with other members of their social groups. This was only possible when the participants knew each other. When possible, I also asked participants the same questions on different occasions throughout the study. Mostly, responses remained the same indicating that the participants' accounts were reliable. Additionally, the interviews with market participants were cross-checked against other sources including interviews with law enforcement, local and national newspapers, and press releases involving the arrest of ISD sellers. Even though strategies were implemented to improve the internal validity of my field data I cannot be certain that my participants gave me honest answers. However, participants had no financial motive to lie, as they received no compensation for taking part in my

study. Honesty is only part of the problem; inaccurate recall or respondents' lack of objectivity are also problems for qualitative data (Bryman, 2012).

4.2 Supplementary sources of data collection

4.2.1 Trading Standards

To supplement the ethnography with my market participants and gain some insights into how the ISD market is understood from the law enforcement side, I also interviewed some representatives from law enforcement agencies, including one senior member of Regional Northeast Trading Standards (NETS), and one senior member of National Trading Standards (NTS) e-crime team. I also interviewed two digital forensic analysts from NTS whose role is to extract the data from seized electronic devices, including ISDs, to detect involvement in illegal activity and share this information with their team. Trading Standards investigate cases of pirated and counterfeit goods. To identify, gain access to and recruit representatives from Trading Standards I sent a recruitment email to the manager of each organisation asking permission to recruit their officers. The managers of NETS and NTS were asked to act as gatekeepers, I asked them to send a recruitment email to members of their team so that members of these organisations could contact me directly (see appendix 2). Alternative recruitment methods were not possible because interviews were set up during a national lockdown. To set up the interview I pre-arranged a time for the interview to occur that was convenient and comfortable for both parties. Due to the global pandemic, Trading Standards were interviewed via video call (Microsoft Teams). Interviews used a topic guide (appendix 1) and lasted between 40 and 60 minutes. Only representatives from Trading Standards with experience investigating cases involving ISD or ISSs traders were recruited, which severely limited my sampling pool. I used the same process as I did for recording data with my market participants. As each representative from Trading Standards only investigated a small number of ISD traders their knowledge of the ISD market cannot be generalised beyond the people they investigated. This lack of generalisability of findings is a common problem in qualitative research (Bryman, 2012).

Ideally, to understand illegal markets researchers should consider different positions because law enforcement often have different perceptions of retail markets to the criminals (Antonopoulos et al., 2011; Potter, 2010; Potter, 2015). Ethnographic research with active criminals can provide ‘an important counterpoint to the official picture of crime as painted by criminal justice statistics, media portrayals and popular and political discourses’ (Potter, 2017:2). Law breakers’ perspectives can substantiate or challenge law enforcement’s views. By studying both sides I was able to determine how likely my seller’s perceived risks involved in the ISD market were to happen (chapter seven). There is often a lack of substantive information within either official reports (see section 4.4.2) or during interviews with law enforcement about offenders and their crimes. (Hobbs and Antonopoulos 2014; Ferrell and Hamm, 1998; Rawlinson, 2008). For example, representatives from law enforcement did not have detailed information on the price of ISDs. Therefore, law enforcement provides a partial account of the facts. Researching one perspective would have provided a partial, limited understanding of the ISD market. In this respect, researching both sides can be seen as a form of triangulation (Denzin, 1978).

As discussed in Potter and Potter (2020), I aimed to provide a complete picture of the ISD market therefore I researched both sides: ISD market participants and representatives from the agencies which aimed to prevent this illegal trade. I aimed to provide a balanced account of the ISD market from law enforcement and law breakers’ perspectives, but this was not possible due to access issues. When I contacted the twelve managers of local authority Trading Standards in Northeast England some did not respond. But those who did informed me that they did not have experience investigating ISD traders because they delegated cases to NETS. Another problem was that NTS described the ISD market at a national level, NETS described it at a regional level and my market participants described it at a local level. Therefore, describing all perspectives would have limited the number of topics discussed and the amount of detailed description due to word limits. My study focused on the local retail market; subsequently my findings mostly draw on data from NETS rather than NTS because my study focused on understanding the ISD trade within towns in Northeast England rather than at a national level.

4.2.2 Analysis of media sources and policy documents

To understand the emergence of the ISD market, and the changes within the law and policies surrounding the trade of ISDs in the UK, I analysed two different sources using the phrase ‘pirated streaming devices’ and their variations to capture all relevant cases. First, Torrent Freak blogs were analysed; these provide the latest news about digital piracy issues (Torrent Freak, 2020). Second, press releases and reports from Trading Standards, Federation Against Copyright Theft (FACT), and IPO were analysed, including FACT’s (2017) ‘Cracking down on digital piracy’ report, the only FACT report in the public domain. I also analysed private industry reports provided by FACT (2020; Groome and Alibhai, 2017).

I also aimed to understand the risks involved when trading and using ISDs. Therefore, analysing media sources and policy documents was necessary to identify the penalties buyers, users, and sellers of ISDs would likely receive if they were prosecuted. In chapter seven, these penalties are compared against what buyers and sellers of ISDs I spoke to perceived as the likely penalty.

During interviews, market participants referred to cases involving the arrest of two ISD sellers operating within Teesside in Northeast England: Thompson and Allen (boxed-text 2.1). I searched the aforementioned sources for information about these cases and analysed what locals perceived as the two most popular online newspapers based in that region – ‘The Teesside Gazette’ and ‘The Evening Chronicle’ – for reports on these cases. There was a ‘BBC Look North’ broadcast involving these cases on 20th October 2017, which was heavily discussed at the pub during the broadcast.

Since the cases involving sellers of ISDs were reported in the media and policy documents are in the public domain, such stories could be cited, including the names of the traders. However, due to ethical safeguards, this personally identifiable information would not be available in ethnographic studies (Antonopoulos et al., 2018). This was beneficial because when I interviewed Trading Standards their cases could be crosschecked against media and policy documents.

Another benefit of analysing media accounts of crime is that sometimes they are 'based upon factual content and have been researched in depth and detail, so are an accurate and reliable source of information' (Finch and Fafniki, 2019:63). The Torrent Freak blogs I analysed involving Thompson and Allen included quotes from the defendants, their solicitors and the judge in their case (Maxwell, 2015b; 2016C; 2017I, J; 2018b).

Newspapers and official sources have similar limitations as they can both select which stories to present or omit. Therefore, they provide an incomplete, skewed or inaccurate picture of crime (Finch and Fafniki, 2019). Official documents produced by anti-piracy agency FACT (Easton, 2022), law enforcement agency Trading Standards, and UK government body IPO, (2017b;2018b) aim to deter others from committing crimes such as trading and using ISDs, therefore there is an inherent bias in these sources (Jones, 2017). The media may sensationalise stories of crime as their agenda is to make a profit through the sale of newspapers (Jones, 2017).

4.2.3 Observation of online and offline markets

In addition to the data collection techniques outlined above my findings drew on previous data from my postgraduate studies which involved interviews with sellers of pirated DVDs (Potter, 2015). For example, a key finding of my master's study (conducted in 2014-2015) was that ISDs were sold on eBay. Offline markets could have been observed to understand where ISDs are sold in Northeast England. As part of everyday life between 2015- 2019 I visited car boot sales and flea markets in Northeast England and found that no one was openly selling legal or illegal android boxes or firesticks, therefore this marketplace was not formerly observed as part of this study.

4.2.4 Online forums

I had been observing relevant online forums since 2015, before I had started the research. These observations shaped my understanding of interviews with ISD buyers and sellers and the ISD market more broadly. I observed online forums that discussed users' views of the law surrounding the trade and use of ISDs to understand what the public thought was the law surrounding the trade and use of ISDs.

4.3 Analysis

I used NVivo to arrange and organise the data for analysis. I created case summary sheets on my market participants and the traders I identified from my supplementary sources, which involved categorising participants' quotes and observations into key themes. Interviews were transcribed, and fieldnotes were typed up and then organised and coded using thematic analysis, to understand the issues which are most important to the participants. I took an 'iterative-inductive' approach to research, where the researcher begins with an open mind and has as few preconceptions as possible, allowing key concepts to emerge from the data. In such an approach, data collection, analysis, and writing up are not discrete phases but are inextricably linked (O'Reilly, 2012:180).

4.4 Ethics

Before commencing fieldwork, I applied for ethical approval from Lancaster University's FASS/LUMS ethics committee (FL18186). Fieldwork began immediately after ethical clearance was granted in November 2019. Ethical approval for my study took longer than expected because the ethics committee kept coming back with more questions and asking for clarification on some issues, which required further consultations with my supervisors, such as what strategies I proposed to implement to minimise potential harm to myself and to my participants. This was a useful process as it made me think of ethical issues that I had not considered but this meant I could not start the fieldwork when I wanted to.

4.4.1 Harm

Potter and Potter (2020:7) argued that *“the question of “taking sides” has received a lot of attention within qualitative criminology. Much of this has focused on the moral-philosophical or value-laden aspects of taking sides, following Becker’s approach in his 1967 essay “whose side are we on?”. However, the question of taking sides also has methodological implications, especially for qualitative researchers who wish to study both sides to a criminological problem, such as the perspectives of offenders and law enforcement around a particular illegal activity’.*

The authors also argued that researching both sides of the ISD market created practical and ethical challenges. These challenges included who to research first, whether to be open about researching both sides, and whether researchers should share information they have received from one side with participants from the other. Ethics aside, I chose to research one side and then the other because researching both sides simultaneously would have caused issues around time and resource management.

This research applied the principles of non-maleficence and beneficence. Non-maleficence means the participants should not be harmed due to participating in research (Murphy and Dingwall, 2001). Consequently, steps were taken to protect my participants from harm which are discussed in the following paragraphs. Beneficence means that 'research on human subjects should produce some positive and identifiable benefit rather than being carried out for its own sake' (Murphy and Dingwall, 2001:340). The purpose of this study was to understand an illegal market and the actors involved which we currently know very little about, but which has been flagged up by various law enforcement agencies and the UK government as something to be concerned about. Beneficence was applied to this study as I aimed to provide an evidence base for policy makers but not specifically to aid law enforcement.

One key ethical principle within the British Society of Criminology (BSC) (2015) and Economic Social Research Council (ESRC) (2015) ethical codes of practice is to avoid harm to participants and harm to researchers. Harm includes actual or threatened physical, psychological, or legal harm, including criminal prosecution. This study did not pose any physical or serious psychological harm to the participants. However, it was expected that as participants were discussing sensitive topics such as their involvement in illegal activity, they may experience discomfort. To negate this potential risk, participants were informed of their right to skip any question they felt uncomfortable answering, and to suspend or terminate interviews with the option of rescheduling the interview for another time. Some chose to do this because they preferred to be interviewed in a pub instead of a cafe.

To protect law breakers from harm in the form of criminal prosecution members of Trading Standards were not informed that this study involved researching individuals engaged in illegal activity. Unless I told law enforcement that I was talking to my market participants, law enforcement may not know about this group of law breakers thus reducing the risk that I might be asked, or even forced, to hand over my data to law enforcement (in the UK) under the Investigatory Powers Act (2016) (Potter and Potter, 2020).

To protect myself from physical harm, I did not tell either side I was talking to the other because my main concern was that if my market participants knew I was talking to law enforcement they may have threatened or assaulted me if they suspected I had or might inform on them. I implemented measures to minimise the risks to my personal safety such as using a check-in system with my supervisors and conducting interviews with market participants in public places. I informed my supervisors when unexpected issues arose and asked for guidance. During observations of public houses, a male family member or friend accompanied me, which maximised my personal safety and made observation less intrusive, as a lone female customer in a public house stands out more than one in company.

I did not inform either side about what I learned from the other, as this would have raised practical and ethical issues. Within the UK, there is no legal, moral, or ethical duty that requires researchers to report their knowledge of crimes to law enforcement (BSC 2015, ESRC, 2015); therefore all participants were given assurances of confidentiality. Respondents' confidentiality is enshrined in the BSC (2015) and ESRC (2015) ethical codes of practice.

When researching crime and deviance there are limits to confidentiality. The ESRC (2015:24) guidelines state that researchers have a legal obligation to break confidentiality and inform authorities about criminal behaviour if there is a risk of harm to other people or the interviewees. Subsequently, when researching illegal activities, the researcher cannot guarantee that the participant's confidentiality and privacy can be maintained (Elliot and Fleetwood, 2017; ESRC, 2015; BSC, 2015) and this was explained to the market participants in the Participant Information Sheets (PIS) I used. The ethical and practical challenges

researchers encounter when researching multiple sides of an illegal market has been explored further in Potter and Potter (2020).

4.4.2 Interviews and consent

A key ethical requirement when conducting research with human participants in the social sciences is gaining the participant's consent (Bryman, 2012). All research groups were informed that their participation in my study was voluntary and before their interview they were given a PIS. All participants were over 18 with the mental capacity to give informed consent. There were three PISs (see appendix 3), one for each research group; representatives of Trading Standards; sellers of ISDs, buyers of ISDs.

Participants were able to withdraw from this study up to two weeks after their interview, although thankfully no one did. A different process was used to gain representatives from Trading Standards' consent than that of market participants. I emailed Trading Standards an informed consent form, which they were asked to sign (see appendix 3). Respondents were informed that participation in my study is voluntary and that they should not feel pressured by their employers into participating in my study.

It was expected that, as other ethnographic studies of crime and deviance have found, some participants (buyers or sellers) would not provide written consent (Coomber 2002; Ensign, 2003; Hobbs, 2000). The ESRC Framework for Research Ethics states that when studying criminal and deviant groups; '... In some circumstances (such as when users of illegal drugs and illegal groups are involved) written consent might create unnecessary risks for research participants' (ESRC, 2015: 31).

'The use of signed consent forms may comprise issues of confidentiality and anonymity which are important issues where participants need protection. Participants may fear that signed consent forms may make the information they provide traceable to them which may make them vulnerable to potential investigation and prosecution by the criminal justice system (in the case of illegal activities)' (ESRC, 2005:17).

As such, verbal consent was gained from buyers and sellers for interviews and some observations. The practice of verbal consent is commonly used in

ethnographic studies researching illegal activities (Coomber 2002; Ensign, 2003; Hobbs, 2000).

4.4.3 Observation and consent

As the consent process differed for interviews and some observations with market participants they are discussed separately. During observations in their private houses, verbal consent was gained from household consumers. During observations in public houses, verbal consent was gained from pub staff. This study observed the buying and selling of ISDs in public houses, and informed consent was not requested from these individuals because sometimes they were strangers and informing them would pose a risk to my personal safety. Further, as I did not know who would be buying ISDs at the pub until after the transaction had taken place, it was not possible to gain consent from buyers and sellers involved in this illegal transaction. This study's approach to observation followed the best practices set out by the ESRC and BSC.

'In some observational studies, it is not possible to inform all participants they are being observed, for example, if the observation is being conducted in a pub or a street, it is not possible to provide information to all people who might enter the area' (ESRC, 2005:13).

Public houses constitute a public setting; I did not require permission to observe activities within these. Many researchers have commented that covert research is significantly less problematic in public settings than in private settings (Calvey, 2017; Hobbs, 1995). Nevertheless, covert research is often flagged as an invasion of privacy (Bryman, 2012; Calvey, 2017). The covert aspect of the fieldwork is secondary to the interviews as a data source yet is a highly significant aspect of the research which can be justified as important. As of this time, the study has provided unique knowledge within an under-researched topic, where pervasive and socially significant issues were addressed which could not have been researched in other ways (ESRC, 2015).

4.4.4 Other ethical issues

Anonymity, privacy, and confidentiality are important ethical principles when collecting data on humans (Bryman, 2012). Participants were anonymised as soon as possible and throughout the research process to ensure no personal

data would be shared. As soon as the fieldnotes were typed up and interviews had been transcribed, all participants and people and places named by the participants were assigned with a pseudonym. Identifying features were not recorded in fieldnotes as far as possible and were removed from the data during transcription. Many participants chose their own aliases but if they did not want to, I assigned them one based on a TV show or movie character that they reminded me of! I named one trader Porn Star because he sold pirated android boxes (PABs) that provided access to porn channels.

The data has been stored in compliance with the GDPR and the UK Data Protection Act 2018 on an encrypted external hard drive. The data is not accessible to others. Field/observation notes and interview transcripts are securely stored on my password-protected, encrypted laptop. The documents containing the data collected were separately password-protected to maximize security.

4.5 Reflections: reflexivity and positionality

As qualitative research is interpretative and involves continuous interaction with participants this results in researchers having to consider how their values and social characteristics may have affected the research process (Bryman, 2012; Creswell, 2014). These factors may have resulted in bias in the interpretation of findings or affected whether potential participants agreed to participate in the study (Creswell, 2014:188). These criticisms would apply to my study as I was already an insider within the community of study and shared similar views as some of my participants. However, my pre-existing social relationships with market participants facilitated access to this group and without such relationships this study would not have been possible. I identify as white British with a Northern accent which facilitated my access to the pubs of study, if a person from a different ethnicity or nationality, or with a southern accent, tried to conduct covert research at these pubs, they would encounter problems because non-locals were treated with hostility. Similarly, in Hobbs (1995) ethnographic work on deviant groups he argues that access to his study participants was only possible due to his biography and pre-existing social relationships.

When engaging in fieldwork there is a potential conflict between being a friend versus being a researcher (Dwyer and Buckle, 2009). Some researchers felt that they should not get involved as they do not want to change the field (e.g., Pearson, 2012) in contrast other researchers (Goffman, 2015; Adler, 1993; Holdaway, 1983) have reported how they have actively got involved and offered advice or support to friends subsequently they have in some ways changed the field. My approach was context-specific and a balance between these two approaches. To be an impartial researcher, Ralph was the most challenging participant, I had to balance between being open to his ideas while avoiding encouraging his conspiracy theories. I did not try to change his mind in this context because that would have interfered with the field. I also did not advise participants on the law regarding trading or using ISDs.

I do not know what difference my gender made, whether or not it facilitated access, but it is likely that a male researcher might have been treated differently and may have found different things. On the one hand, my gender position may have affected access because I observed local active male criminals (not my participants) approaching male strangers (my participants) at one pub of study to make small talk, which included discussing their involvement in illegal activity, but they did not approach female strangers (including me). However, as my participants fed back this information to me I realised this was not an issue. On the other hand, as discussed in section 4.1, people may have been more open because of my gender.

A wide range of sources are available on how to conduct an ethnography in the social sciences (Atkinson *et al.*, 2001; O'Reilly, 2012; Treadwell, 2020). However, apart from Treadwell (2020), there is a lack of formal guidance available to researchers in the social sciences who want to carry out ethnographic research within 'criminal fields' (Pearson, 2009:252), particularly ethnographic research on illegal markets. Consequently, for some issues, I consulted my supervisors, such as reflections on the role of gender when interviewing male respondents. There is also a lack of advice when researching multiple perspectives of a criminological problem (see Potter and Potter, 2020, for exceptions). A related issue is that within ethnographic studies of crime and deviance, there are few methodology sources where researchers have provided

their own detailed accounts reflecting on how their positionality may have affected the research process. Subsequently, researchers must consult general social sciences methodology texts such as Blackman's (2007) *Hidden Ethnography* for insights into positionality. It would be helpful for future ethnographers if there was a longer positionality discussion in studies on crime and deviance for advice and guidance.

Cafes were not always useful research settings for interviews and some of my participant's requested to be interviewed in the pub instead, 'so I can have a drink while we chat' or 'so I do not have to travel'. As the pub is a natural setting, unavoidable distractions as part of everyday life sometimes made it a challenging setting for conducting interviews. In L'Hoiry's (2013) study of a tobacco bootlegger, he encountered similar problems when conducting interviews in a pub. However, this was not always problematic; sometimes other people being present was useful as often when others overheard our conversation they joined in and shared their views on a topic.

During interviews and informal conversations, I avoided using 'value laden' language (Bryman, 2012) that may have elicited a certain response (such as using the word organised crime or illegal market) or may have scared off my market participants. I also tried to 'use a language that is comprehensible and relevant to the people that [I was] interviewing' (Bryman, 2012:473). As far as I know, my positionality did not have an impact upon my relationship with members of law enforcement this may have been because I interacted with them professionally rather than socially.

This study encountered practical constraints as I was a self-funding PhD student with limited time and resources. Additionally, due to the outbreak of Covid-19 the UK entered its first lock-down on Monday, March 23, 2020, which restricted all face-to-face encounters with people who are not household members. Subsequently, I was forced to stop conducting research in pubs. I had planned to conduct an ethnography for one year; instead, it was reduced to five months. To solve this issue, I recommenced fieldwork with market participants when lockdown restrictions were lifted. I conducted online interviews instead of the face-to-face interviews I originally planned with law enforcement.

4.6 Conclusion

The approaches outlined in this chapter demonstrate that I engaged in a form of triangulation. By adopting an ethnographic approach and researching law enforcement and law breakers' perspectives I was able to present a more complete picture of the ISD trade and the actors involved. If this study had been limited to a single perspective or method, it would have lacked the authenticity that a mixed methods approach has provided. ISD buyers and sellers constitute hidden populations, and as many studies of deviant groups have shown, these groups are distrustful and suspicious of outsiders. Without my prior social connections to this group, it is unlikely that a study on these groups would have been conducted due to access issues. This study used insider knowledge and took an ethnographic approach to understand the motivations, trading practices, and risk perceptions of ISD buyers and sellers. By researching law breakers' perspectives, I was able to present a counter-narrative to law enforcements interpretation of the market structure of the ISD trade in the UK. Thus, rejecting the view that the actors involved in the ISD trade are organised criminals this could not have been achieved without ethnographic research with the law breakers' perspective. Although the findings of this study are not generalisable beyond the study population through interviews and observations, I gained knowledge and understanding of the social world of buyers and sellers of ISDs that could not have been captured through online attitude surveys of these groups.

5- Setting the scene: the research sites and people

This chapter aims to set the research scene by describing the research sites, the local culture, and the demographics of my market participants. Understanding the culture within the pubs of study that my participants socialise within is essential to understanding their involvement in this illicit market. Culture is a contested concept within the social sciences with anthropologists (See Risjord, 2007 review) and sociologists (See Little, 2016 review) applying different interpretations. This study takes the latter interpretation. ‘Though “society” and “culture” are often used interchangeably, they have different meanings. A society is a group of people sharing a community and culture...A culture includes the group’s shared practices, values, beliefs, [and] norms’ (Little, 2016:4,151). Culture also includes informal rules about how members are expected to behave (e.g., not reporting knowledge of crimes) and informal sanctions (e.g., violence or threats of violence) if rules are broken. As will be seen, my participants formed a society with a shared culture, I observed that members learned this culture from family, friends, and neighbours.

The chapter begins by introducing the research sites and describing the two pubs where this study took place. It provides the socio-economic context of the neighbourhoods and locations where trade occurs, and of the market participants who trade within these pubs. It then describes the widespread use of illegal sports subscriptions within public houses in northeast England and the motivations of pub landlords. It explains how traders advertise illegal subscriptions to pubs. It also describes how to detect pubs that illegally stream sports and landlords’ knowledge of the law on streaming sports in pubs. It then describes the ISD sellers and buyers in my study, and compares these actors to those involved in other illegal markets. Then, I discuss the technological evolution of the ISD markets that I witnessed. After that, I explain why the ISD market emerged within the towns of study.

5.1 Introduction to research sites

There were two main research sites in my study: ‘Joe’s Tavern’ in ‘Springfield’ and ‘Stan’s Place’ in nearby ‘Beachland’. Most interviews were in Springfield because my participants knew more household users and sellers of

ISDs who were willing to speak to me there than in Beachland. The main similarity between these two pubs was that both landlords ('Joe' and 'Stan') paid monthly for an illegal subscription to sports channels (ISSs) which they aired using a streaming device. Neither pub serves food, and both are quite small and therefore could get quite crowded. As Vicky said of Joe's Tavern, 'the pub is always lively full of atmosphere'. Another patron described it as: 'Canny small [...] not like Wetherspoon's pubs which are proper massive. I couldn't fit my entire family in there man it's that cosy' (Dennis).

A key difference between Joe's and Stan's was that Joe did not sell ISDs while Stan did. Instead, various traders sold ISDs at Joe's but no one else sold ISDs within Stan's. How traders operated within these pubs, including the reasons these differences occurred, is explored in chapter six.

Crime differs by time, space, and place (Newburn, 2007) thus it is important to describe the geographical area where the pubs in my study were located and what types of people frequented the pubs, which is the focus of the following sections. The extent of and perception towards criminality is likely to be different in pubs within economically-deprived areas of Northeast England populated with working-class patrons compared to pubs based in wealthy areas in the South of England with middle-class clientele; poverty rates are higher in the North of England than the South (Joseph Rowntree Foundation, (JRF) 2020:5).

The British working class is a contested term with many different academic meanings. There are broadly two main definitions. Often it is used to describe people living in poverty due to being exploited by a capitalist system (Little, 2016), other times it is used to describe the shared culture of a community responding to few job prospects in deindustrialized England (Cohen, 1997; 2011; Willis, 1978). It is beyond the scope of this study to get into the academic debate instead I am taking a similar approach to Hobbs (1995; 2013) by not defining the term just accepting that there did seem to be a common understanding of this term between the participants and the researcher. Consequently, in the context of this study, it was almost an uncontested term. I shared a similar background as my participants, raised within an area of multiple deprivation and relative poverty.

The participants have shared identities and a shared culture that is partly about their condition and partly about understanding their position in opposition to the wealthier south of England. For example, numerous times, participants expressed their discontent at how the government's levelling-up plans (Gov.UK, 2022) targeted southern rather than northern England.

5.1.1 Joe's Tavern

Joe's Tavern is in a neighbourhood called 'Penny Lane'. When residents in Penny Lane and patrons at Joe's Tavern described the area, they all got straight to the point that the pub is based in one of the most deprived neighbourhoods in Springfield and that it was 'a high crime' or 'rough area'. They did not make any attempts to hide their lived realities. This view demonstrated in the quotes below, is supported by data from the 'UK Crime Stats' (2020) website, which shows Springfield is a high crime area. Joe's was quite typical for the forgotten run-down parts of town.

Mrs. Parker: 'I think it is a high crime area here, there is rough uns all over here really...It is rough in some parts, but you would get that all over the region even if you lived in a posh area'.

Sammy: 'What an absolute shit hole! If I wasn't born and bred here I would a fucked off elsewhere!'

I probed participants further to understand what 'rough' meant to them. Most expressed similar views to Mrs. Parker:

'People burglar each other's houses...garden sheds get broken into and tools get nicked, and people are always shouting loudly in the streets, hooligans they are. I used to see teenagers drinking on the street, but thankfully, they've grown up or moved away'.

In contrast, Mr. Parker did not use the word rough. However, despite different wording, participants generally agreed Penny Lane was economically-deprived and had high crime rates.

Mr. Parker: '[Penny Lane] is a working-class area, I wouldn't say rough but run down, poor-ish neighbourhood due to a lack of investment by the

government, all they care about is the South! It's run down but there are far worse areas than here'.

Outsiders visiting Joe's for a regular patron's birthday party such as Peter (from Beachland), also described the pub and the surrounding area as being populated by poor and 'rough' people. Indeed, Penny Lane is a visibly poor area. There is often graffiti and empty or broken glass bottles outside Joe's that frequently get removed but quickly reappear. Wilson and Kelling's (1982) Broken windows theory can be applied here. As this theory is a right realistic perspective it has been widely criticized by left realists (Newburn, 2007), but it is still relevant here. Regardless of whether the participants were local residents or outsiders they perceived the area surrounding Joe's to be economically-deprived, raising the question of why they continued to socialise at Joe's.

I asked a different set of participants who lived in Penny Lane to describe the area to see if this view was widespread. As this question was asked while sitting around a table at a house party it resulted in three people engaging in a lively conversation, presented below, which revealed that a key characteristic of living in a rough area was the normalisation of crime. (See Coomber et al, 2016 for further discussion of this term, meaning how crime has become an everyday part of life).

Vicky: 'Everyone [at work] says [Penny Lane] is proper rough, but nah, it's not man. They probably on [a]bout people like me man!' (she laughed).

Rhianna: 'Come on man Vicky, we have [a local seller of stolen goods] knocking on the door, we got [the same seller] stealing people's plant pots and trying to sell the same pot back to them. Yer sure it isn't rough!'

Vicky responded: 'It's a breeding ground for people to sell dodgy gear in [Joe's Tavern] and [other nearby pubs], who is gonna snitch? No one! Who is gonna buy? Fucking everyone! If it's not chained down, someone will nick it and flog it! Who doesn't want cheap stuff?'

Allan: 'Yes, don't leave anything around here if it's not tied down they will nick it'.

We could have spoken a lot longer about what it is like to grow up in northeast England and how the location of this pub was impacting the people who were frequenting it. Rhianna's tone implied that she was trying to raise Vicky's awareness that crime is not normal everywhere, it is just at Penny Lane! Sadly, these participants engaged in this conversation with a tone suggesting that it was just the way it was, nothing they had the power to change.

Interestingly, some of my ISD users sold stolen or counterfeit goods or contraband tobacco in Joe's Tavern. Patrons at Joe's and residents of Penny Lane formed a community with their own values: a social acceptance towards deviant and criminal behaviour and a culture where people are unwilling to report crime to law enforcement (explored further in section 7.7). Understanding my participants' culture is essential because it not only facilitated buyers' and sellers' entry into this illicit market (explored further in section 6.3), it also affected how traders ran their illicit schemes – particularly who they sold to and the strategies they employed to avoid detection (see chapter seven). Crime being perceived as normal, particularly the trade of counterfeit goods and illicit tobacco, is common within economically-deprived neighbourhoods (Antonopoulos et al., 2018, 2019; Hobbs, 1995; Hall et al., 2008; Goffman, 2014; Venkatesh, 2008; Wiltshire *et al.*, 2001).

Joe's Tavern was populated by locals, it was rare for outsiders to enter the pub. Every time I was there, I only saw the regulars, and the only new people were the regular patrons' new romantic partners or family members who rarely visited the pub due to family or work commitments. Most patrons at Joe's resided in Penny Lane and had lived there most of their lives, and their friends who visited Joe's lived in Springfield. As the neighbourhood surrounding Joe's is situated within a deprived area it comes as no surprise that the pub is comprised of locals who were experiencing poverty. Most people did have jobs, but some were unemployed. Some were teenage mothers and others were repeat offenders with criminal convictions for petty crimes. Based on these descriptions, Charles Murray (1996) would describe some residents of Penny Lane and patrons within Joe's as 'the underclass'. It is likely to be more difficult to move out of poverty in Northeast England because 'it has a higher unemployment rate and lower average earnings than other regions' (JRF, 2020:45). Although I had already got

a sense of the types of people that frequented Joe's, I wanted to know more to gain insight into what it is like to be a regular at Joe's from their perspective. All my participants, both male and female, provided a similar bleak account to Vicky:

'There are two sorts of people that go to the pub. The ones that are out for a good time, a night out. Then there are the ones that are looking for trouble, the rogues, you will know who they are when you see them by how they go on. You let them have their corner and everyone else has their corner. You can't ignore them, or they'll say what is wrong with you do you want a fight? Ignoring people gets their back up. You have to say "alright mate". [Joe] won't kick them out coz they'll start a fight. [Joe] don't want any trouble'.

Some patrons who were not comfortable with violence were wary of these troublemakers. Others were not concerned because they were used to people keen to start a fight as they had experienced this within other local working-class pubs, and knew how to manage the situation. Despite the threat of violence, my patrons remained regulars. They were attached to Joe's because there was a lack of alternative local pubs to visit as many had shut down or the atmosphere was even worse - which may be hard to believe, yet several of the regulars provided an example. They explained that they were not comfortable regularly visiting other pubs in Penny Lane, especially 'Schitts Peak', because there were often bar fights, and they were populated by 'wrong-ings' and 'rogues'.

Murphy: 'Someone getting the shit kicked out of them for looking at someone the wrong way is just a normal Saturday night for [Schitts Peak]'.

Allan: 'You wanna do some blow [cocaine] in the loos or be shagged by a prossie [prostitute] then you go to [Schitts Peak]. It ain't no place for a lady. Shit I wouldn't go there'.

Schitts Peak had an unpleasant atmosphere with both sex in public toilets and violent confrontations being normalised which might reflect how violence is embedded within their working-class culture.

Joe's Tavern was more than just a geographical location – it was a close-knit community in which outsiders were not welcome. Patrons explained that this

was because they assumed outsiders were ‘undercover cops’ until they could prove that they were not. They did not want law enforcement in their pub because they wanted to be able to talk freely about their involvement in illegal activity without fear of prosecution. I was told that it was only people who could be vouched for by existing regulars who were made to feel welcome at Joe’s. Otherwise, outsiders were treated with hostility. This unwelcoming and hostile attitude towards outsiders was expected because it is common within other local pubs that previously used ISSs in Penny Lane (such as Schitts Peak, as demonstrated below), suggesting it is part of their culture.

Fieldnote summary: One day, the ISS was down at Joe’s Tavern, so Allan visited Schitts Peak to watch the match. Because Allan was not a regular there, [The landlord] threatened to beat the shit out of me if I didn’t get out. He must’ve thought I was a cop’ (Allan). Unsurprisingly, after that Allan told me he had never returned to Schitts Peak and only frequented Joe’s.

5.1.2 Stan’s Place

Regulars and visitors at Stan’s Place considered it to be based within a deprived area of Beachland but did not describe it as being a high-crime area. Nevertheless, the ‘UK Crime Stats’ (2020) website shows that Beachland has a higher crime rate than Springfield. Stan’s Place is populated by students and locals: the pub was located outside a town centre where housing was more affordable for student living. To understand what the atmosphere was like, I asked patrons to describe the clientele. Peter’s description was typical: ‘Most of the people in here are working-class decent locals, they’ve been brought up here [in Beachland]’.

I asked why they visited that pub instead of others in the local area, and they responded by reiterating their description of patrons. I also asked the participants who were students this question. They explained that they frequented Stan’s Place because either they or their friends lived nearby, and they felt comfortable there. Most of my female students described it as being somewhere to socialise with their friends without receiving unwanted male attention. One student described Stan’s Place as being a ‘chilled, relaxing place’ (Aria). Another said: ‘I like it here coz I don’t get hit on all the time, so I can just chill with my

mates. When I wanna hook up with a guy I'll go to [bars in the town centre]' (Elsa). As expected with a student population, the students who frequented the pub changed over the years that I visited. When they finished university, some students returned to their hometown while others continued living in Beachland and got jobs nearby. Both groups stated that there is a lack of alternative nearby pubs playing live sports.

Stan's Place was a close-knit community. Stan and his patrons welcomed strangers as long as they behaved. Stan does not tolerate unacceptable behaviour in his pub, such as cocaine use in the toilets, and he had a reputation for being able to enforce that: Clancy: 'I will always remember some bloke came out the toilets and went "there is more coke on the toilet than on my gran's fireplace". Then [Stan] kicked down the door and hoyed them out'. Interestingly Stan was selective in what drug use he considered to be acceptable and unacceptable, this related to the clientele Stan believed it would attract. He tolerated – even welcomed - people smoking cannabis outside. He reported that in his experience, cocaine users were often problematic customers because the effects of the drug created uncontrollable customers, while cannabis users were chilled and relaxed and did not cause trouble.

5.1.3 Criminal culture

The following reviews the literature on criminal cultures to argue that some working-class people (such as my participants) in northeast England engage in crime (e.g., the trade or use of illegal goods or services) and form criminal cultures because they live in poverty due to the British government implementing neoliberal policies since the Thatcher administration. I begin by describing the process of deindustrialisation and its impact on the local Northeast economy and working-class culture. Then, I explain how the continuation of neo-liberal policies created poverty and argue there is a relationship between inequality and crime.

There have been significant economic and social changes in Britain since the 1970s due to changes in how Britain and the global economy are governed. The Thatcher government of the 1970s shifted economic governance from Keynesianism to free market neo-liberalism, reflecting shifts in America. This involved the government abandoning its commitment to full employment and

shifting towards encouraging workers to compete for jobs (Grover, 2008; Hall et al., 2008). Until the mid-1970s, most young working-class people left school at 16 with few qualifications and went straight into low-skilled employment (Grover, 2008; Willis, 1978). Thatcher implemented a range of neo-liberal policies that focused on individualism and competition, including dismantling powerful trade unions and reducing social security benefits (Hall, 2012).

Since the Industrial Revolution, northern towns have relied on jobs in the extractive and heavy manufacturing industries and factories. Thatcher's administration closed these industries as production was moved to less economically developed countries that offered cheaper labour than Britain. Factories were also closed due to technological developments and globalisation (Hall, 2012; Warren, 2018). This resulted in significant job losses. In the space of six months (from January to June 1986) there were 6,540 job losses in Northeast England as factories and shipyards closed (Morton, 2021). Since the 1980s, neo-liberal policies have also resulted in rises in poverty, mass unemployment, and property crime among the working class in this region (Hall, Winlow, and Ancrum, 2008). From 1985 to 2024 unemployment remained high among people under 25 (Grover, 2008; JRF, 2024). Such closures destroyed the Northeast economy and produced an 'industrial wasteland' (Hudson, 1986:169). The process of deindustrialisation affected northern towns much more than other towns because places like East London did not develop an industrial base, as their working class was employed in trades and crafts specific to East London (Hobbs, 1988).

The process of deindustrialisation resulted in there no longer being a demand for male workers in semi- and unskilled jobs; this continues to affect working-class men in Northeast England who traditionally would have been employed in the local extractive and heavy industries (Grover, 2008:10; JRF, 2024). Due to the shift towards a market society, there is a lack of replacement job opportunities for them with similar skill levels in the local Northeast economy. The heavy manufacturing industry in Britain was replaced by a global economy that increased service-sector jobs that offered 'minimum wage, part-time and non-unionised employment coupled with anti-social work shifts and oppressive management strategies' (Hall, Winlow and Ancrum, 2008:25). Some working-class individuals shifted to such employment however it was mostly women

(Grover, 2008). As service sector jobs continued to increase and adapt to changes in the market this created 'short-term, hourly-paid contracts that became standardised, often accompanied by wages that failed to reflect the cost of living' (Hall, Winlow and Ancrum, 2008:25). This created a culture in which workers were expendable and unable to protect their rights due to the reduction of trade unions power. The rapid shift from an industrial to a market society created many victims (Hobbs, 2013); of relevance here is the working class, who was either unwilling or unable to adapt. Subsequently, this resulted in long-term unemployment in 'residential areas that once serviced heavy industry or low-income housing estates within or in the outskirts of the larger cities' (Hall, Winlow, and Ancrum, 2008:27). Arguably, the shift to neo-liberalism has resulted in society splitting into two groups, high earners with full-time jobs and job security on one side and low earners with casual jobs that are dependent on state benefits to supplement their wages to avoid absolute poverty on the other side (Grover, 2008; Hall, Winlow, and Ancrum, 2008).

Now, I will discuss the impact of deindustrialisation on working-class culture. Since the Industrial Revolution working-class culture in northeast England has been shaped around full-time employment; residents shared the same or similar jobs and subsequently shared a culture. The destruction of their jobs led to the destruction of their shared culture (see Hall, Winlow, and Ancrum, 2008 for an overview of working-class culture). Interestingly, Hobbs (1988) reported that in the 1980s working-class male culture was different in northern towns than in East London because in East London competition for casual work had been normal amongst the working classes since the post-war period. Subsequently, they shared a culture of entrepreneurship therefore they were able to adapt to changes in the local economy while northerners were not. Hobbs (1988) reported that in the 1980s, at the end of their working day, men working in East London engaged in entrepreneurial pursuits, whereas workers in Northern towns went drinking at their local social clubs or home to their families.

Arguably, the process of deindustrialisation is the main cause of poverty in Northeast England but there are other contributing factors. Since the 1980s the British government has viewed neo-liberal economic governance as the only way of achieving global economic prosperity and has prioritised securing its position

of the free market over offering social justice (Grover, 2008). This prioritisation has resulted in inequality and poverty increasing. In the 1980s, poverty levels grew exponentially under Margaret Thatcher's administration even though it was a time of high-income growth this was due to 'very unequal income growth over this period'. Poverty levels continued to rise 'with only small decreases in subsequent administrations... [by 2024] current levels of poverty are around 50% higher than they were in the 1970s' (JRF, 2024).

As successive administrations since Margaret Thatcher's continued to adopt neoliberal social policies, arguably this led to rising poverty levels in Britain (Grover, 2008; Partington, 2024) which exacerbated the current cost-of-living crisis and widened the economic inequality gap. Such policies included significant benefit cuts in the Conservative government's post-2010 austerity drive (Partington, 2022). More recent policies included the government not raising the national minimum wage or social security benefits in line with inflation and providing tax reductions for high earners (JRF, 2024). The immediate cause of poverty is inadequate income caused by these factors (JRF, 2024; Grover, 2008).

The Northeast's economy has never recovered since deindustrialisation. JRF (2024) statistics show poverty levels in Northeast England are among the highest in the country and are driven mostly by high unemployment, few job opportunities, and the population being in low-paid roles. The latter suggests that employment is not a solution to poverty and that structural rather than individualistic factors led to poverty in this region.

There is an academic debate about whether inequality causes crime. In Britain, there is a lack of national studies of poverty and crime or studies of crime and class even though there is consensus amongst academics and policy makers that crime is widespread among the working class (Webster and Kingston, 2014). Grover (2008) reviewed quantitative research on the relationships between crime and inequality and concluded that they are closely linked, although it is unclear whether inequality causes crime. Webster and Kingston (2014) found similar findings when they reviewed quantitative research on the relationship between crime and poverty. Both reviewers were unable to explain why the factors are related. Subsequently, Grover (2008) reviewed criminological theory to answer

this question while Webster and Kingston (2014) reviewed the relationship between poverty, crime, and other factors. They also explained why analysing quantitative data to understand the impact of poverty on crime is challenging.

Qualitative research in England shows a relationship between crime and inequality, traders of illegal goods reported engaging in such crimes to earn money due to the lack of well-paid local legitimate job opportunities (Hobbs, 1988; 1995; 2013). Until the late 1980s, residents of neighbourhoods in northeastern towns worked in the shipbuilding industries when these industries closed these neighbourhoods then had high crime rates (Hall, Winlow, and Ancrum, 2008). However, as Webster and Kingston's (2014) review shows, additional factors may contribute to criminality in these studies beyond unemployment as they found 'there is no direct relationship between unemployment and crime' (p12). There is a relationship between disadvantaged areas and the development of illegal markets as the police are less likely to intervene in such areas (Ludwig et al., 2001). Therefore, crime in these studies and my own may be a result of unemployment, low-paid jobs, and participants living in disadvantaged areas.

My research also supports the view that crime and inequality are related. Most of my participants explained that besides apprenticeships for young people, there is a lack of job opportunities within the legitimate economy for someone with low skills (e.g., no or basic qualifications). And the legitimate jobs available do not provide enough income to acquire 'a decent standard of living' (Lee), (e.g., to live above the poverty line). They explained how this economic inequality was made worse by the cost-of-living crisis. This mirrors JRF's (2024) explanations for poverty in this region.

My participants reported purchasing ISDs and counterfeit goods because they could not afford the legal equivalent (see section 5.6.1). Some of my traders reported trading ISDs because their legitimate jobs did not provide them with spare income to spend on non-essential goods (e.g., holidays, see section 6.3.2.1). Hall, Winlow, and Ancrum (2008:418) have critiqued rational choice theory and argued that 'crime is more than a rational choice, it is a set of cultural choices based on the anxiety and consumption interests of the offender'. Applicable here is Merton's (1957) strain theory. My participants were unable to

achieve their goals of participating in the consumer culture via legitimate means (legitimate employment) therefore resorted to illegitimate means (e.g., engaged in crime or entrepreneurial pursuits) to achieve these goals.

The local criminal culture in this study shaped the way my traders operated. They did not need to conduct a cost-benefit analysis to assess whether trading posed a risk of detection, as trading in this environment is almost risk-free. Yet some of my participants did assess risk and were rational actors (explored further in section 7.7).

5.2 Illegally streaming sports in public houses

Now that the research sites have been introduced, I will describe the use of ISSs in public houses. I wanted to know how long my landlords had been illegally accessing sports, whether this was something entirely new, or whether illegal streaming was just a new way to do it. Both my landlords said they started using ISSs when they first came out, around 2014/2015. Before this they used decoder cards to obtain sports illegally. Therefore, there was a consumer shift in the devices that pubs used to illegally view Sky Sports channels, which reflects historical patterns of what happened in other pubs in the UK as the available technology evolved (see section 2.3). Both landlords and patrons explained that the main disadvantage of decoder cards was that the commentary on the matches was not in English. Subsequently, to alleviate this problem they played the radio for the sound and used the decoder to watch matches. But sometimes the sound and picture did not match due to a delayed TV broadcast which some participants found frustrating; others found it amusing. My landlords reported they shifted from decoder cards to ISSs because they offered sound and corresponding video in real-time. Similarly, a few of my household users also reported shifting from decoder cards to ISDs to watch Sky Sports.

Some patrons at Joe's and Stan's visited other pubs in Northeast England. Consequently, I spoke to sports-focused participants who frequented pubs in four different towns in Northeast England. These included Springfield, Beachland, and the nearby towns of Fisherland and Sandland. They all said they watched football on 'dodgy boxes' (illegal streaming) in their 'local neighbourhood working class pubs' (Vicky). Outsiders to the area described those pubs as being in 'rough and

run-down neighbourhoods' (Barney). These different descriptions of the same area suggest that patrons' perceptions of the area depend on whether they are local residents who are proud of the area or outsiders who do not really want to be there.

These participants all commented that lots of pubs in their town were using ISSs between 2015 and 2017 but by 2019 few pubs were using these services. The reason for this decline is explored in chapter eight. These descriptions suggest that using ISSs was popular amongst a particular demographic: those within economically-deprived areas in Northeast England, which as discussed is also likely to be populated by patrons with a culture where crime is normalised.

My study broadly aimed to understand why households and pub landlords engage in illegal streaming via streaming devices. Interestingly, my households used ISDs while my pubs used ISSs to access illegal streams. The difference reflected the fact pubs needed to be guaranteed their streams worked while household users did not. Both of my landlords stated they would have lost sports-focused patrons if their stream stopped working during sporting events. Free streams often stopped working (chapter eight).

Before exploring my landlords' motivations, I needed to know whether they knew that what they were doing was illegal. Therefore, I asked them about their knowledge of the law surrounding broadcasting Premier League matches within pubs.

Stan: 'Everyone that works behind a bar knows you have to pay Sky to watch the footy'.

Joe: 'Everyone knows you have to pay to play the footy in a pub'.

Both expressed the same view: they knew that using ISSs and showing Premier League matches in a licensed premises without a Sky and BT business licence was illegal. They both had an accurate understanding of the law (section 2.2.7). I asked them about the risk of getting caught.

Stan: 'The risk is always there that I could potentially get found out. Only way I would get found out is if undercover agents came in to look

specifically for that or if potential customers let slip. But I don't know why they would say that coz it would spoil it for them'..

Joe was more succinct: *'Two problems: snitches and police raids'*

Stan and Joe both saw law enforcement as a risk - either through undercover policing or in response to 'snitches'. But they saw this risk as being mitigated because they trusted customers not to snitch. I enquired further about this risk and asked them what they thought would happen if they were caught.

Stan: 'If I got caught, I would possibly get prosecuted from Trading Standards or Sky. That would lead them to contact the brewery and they would come out and assess my licence to run the pub. I could possibly lose my licence, or I could just get a slap on the wrist, a warning letter and a fine'.

Joe: 'I could lose me licence, pay a canny wad [large sum of money] in fines, get a warning letter'.

Even though they were interviewed separately Stan and Joe used the same words to describe the possible penalties they may receive if they were prosecuted: a fine and possible loss of their business licences. Their perception was accurate: as identified in section 2.3, landlords have received these penalties for illegally showing Premier League matches.

I wanted to understand how pubs are detected when they illegally stream sports, but I did not ask this explicitly. I asked my landlords and clientele how they knew when pubs and social clubs were using 'dodgy boxes' to attract customers. I expected that pubs' advertising strategies would be used by law enforcement as detection strategies. Both my landlords and patrons provided the same three responses: they did not have the pint glass logo on the TV during the football; they had a sign outside their pub advertising sporting events that were unavailable to watch live on UK TV channels (e.g., foreign matches); and they did not have signs in their windows stating they had a Sky Sports or BT Sports subscription. As expected, these were also the same three ways my law enforcement participants identified pubs illegally broadcasting sports. But, my North East Trading Standards (NETS) participant reported that Trading

Standards had more detection strategies at their disposal. They identified pubs illegally broadcasting sports when they received complaints from other landlords, members of the public, or through surprise visits. I asked them who investigates pubs illegally streaming sports: 'Us and local authority Trading Standards. And people like Sky, BT, and Virgin they go into the pubs and clubs themselves with their own investigators... to make unexpected visits'. Subsequently, there are at least five ways to detect pubs illegally streaming, suggesting the likelihood of pubs being detected should be high, unless risk management strategies (RMS) were implemented.

I aimed to understand what RMS my landlords used to avoid detection, but unexpectedly Joe and Stan told me they did not use any. Both landlords stated their ISS came with a **Virtual Private Network** (VPN) and explained the only way they would get caught is from surprise visits from law enforcement or people 'snitching'. Neither applied any RMS because they did not think they were necessary: 'No one is gonna snitch on me they'd spoil it for themselves, and everyone knows snitches get stitches' (Stan laughed while saying this). My landlords did not have an accurate understanding of how law enforcement operates because, as discussed, law enforcement used other detection strategies.

Both publicans can be understood as rational actors. They rationalised that it was not necessary to implement specific RMS because some general RMS were already in place. There was a lack of alternative venues to watch sporting events in their local areas. And their patrons, local residents and nearby pubs were part of a community that had a culture where crime was normal, and people did not report crimes (see section 7.7). Therefore, my landlords did not worry about detection due to complaints to law enforcement.

Both of my landlords did implicitly implement one RMS by not having a poster outside their pub advertising sports. They said this would attract unwanted attention and Joe gave the example of Schitts Peak being caught due to this. Therefore, I expect that law enforcement would only know my pubs were illegally streaming sports if they conducted a surprise visit. But they were unlikely to be detected due to a surprise visit because, as discussed, law enforcement usually

only makes an unexpected visit after receiving a report of illegal activity in that pub and snitching in the communities of study was rare. Studies of illegal markets show that advertising an illegal product or service in public spaces where anyone, including law enforcement, can see it is often avoided due to fears of detection (May and Hough, 2001; 2004).

As Joe and Stan did not report using any RMS, I asked participants that frequented other pubs that used ISSs how those pubs avoided detection. The only legal way to show Sky Sports channels within commercial premises in the UK is with a subscription to Sky Business (Sky UK, 2017). This subscription includes a Sky licence to be displayed in the subscriber's window, and subscribers will occasionally see a pint glass icon on their TV screen. If commercial premises do not have either of these this can lead to the identification of who is illegally showing Sky (Sky UK, 2017). My sports-focused patrons commented that when they went to some venues that used ISSs within Springfield when the football was on, they had a sticker of the Sky pint glass icon at the bottom of their screens. Initially, this sounded like an effective RMS, but they stated it was obvious that this was just, 'a cardboard cut-out' because the logo was still on during the adverts. Sky does not have the logo on during the adverts, so this is unlikely to have been an effective RMS if law enforcement conducted a surprise visit.

Unsurprisingly, if pubs have a poster in a public place advertising that they are illegally streaming sports they are likely to be detected:

Fieldnotes summary: Murphy, a regular at Joe's, informed me and other patrons at Joe's that another local pub, Schitts Peak, was raided several days after having a poster outside advertising foreign matches that were unavailable on UK TV. Murphy shared that he was at Schitts Peak when it was raided, by Trading Standards or Sky, because someone saw the sign outside, but he could not remember which agency it was. The outcome of being detected was that law enforcement told the landlord to stop illegally streaming sports and gave them a warning [cease-and-desist] letter. When Murphy told the regulars at Joe's this story, they were not surprised the pub was detected but they did engage in a lively debate of how law enforcement

found out about this poster. Allan speculated that someone may have called Crime Stoppers on Schitts Peak because 'how else would they know to look there?'

Allan was expressing his assumption that people are only detected engaging in illegal activity in his area if someone reports them, an assumption explored in boxed-text 7.1 and 7.2.

Dennis disagreed with Allan: 'no one would have snitched'. He commented that police may have seen the sign when they were arresting people at or in the vicinity of Schitts Peak because police were often there as it is frequented by 'rogues' and 'toerags'.

This suggests that pubs that advertise they are illegally streaming sports are likely to be caught if either someone calls Crime Stoppers or if the police are often at or in the vicinity of the pub investigating other crimes. Crime Stoppers offer a reward for information on crime while police do not, therefore they provide an attractive incentive to make some easy money, that is if they are prepared to take on the risks snitching leads to. Allan stated that people rarely report crimes in his neighbourhood due to fear of possible repercussions (see section 7.7). There are alternative reasons for the lack of crime reporting, including a code of honour against snitching, and crime being normalised.

After the pub was detected and received a warning it would be expected that they would stop illegally streaming sports due to fears of legal action, but this was not the case. Clearly to them, their only mistake was getting caught. But they had learned from this, because they no longer advertised that they were illegally streaming sports.

Fieldnote summary: Anyone walking past Schitts Peak would think they had stopped illegally streaming sports, which was their intention, because after the raid when I walked past, I could no longer hear the TV on. But Murphy told me that the owner now closes the door when the match is on once all his regulars are in and turns the sound off.

Therefore, the landlord had implemented an RMS to avoid detection although how effective it is remains to be seen as police are often in the vicinity. Changing

their behaviour in response to a perceived risk shows the landlord was a rational actor.

As my landlords knowingly engaged in illegal activity by streaming sports and thereby risking their business licence, I wanted to understand their motivations: why would they take this risk and what benefits does illegal streaming bring to their pub.

Lisa: 'Why do you use "dodgy boxes" [illegal subscription] rather than paying Sky or BT Sports?'

Joe: 'To make some cash. Footy brings in the punters.... Back in the day when the boxes first came out the pub was full for the two hours when the match was on. It brought in lots of punters, not an empty seat in the house people even stood to watch the footy. I had a full house, bingo! It's 600 quid to a grand a month to get legit Sky Sports for the pub, I can't afford it. [The local team] never make it to the qualifiers they're shit! They're only on once or twice a season so it does not really benefit me to get Sky Sports for the locals, but I do from a dodgy dealer. And if I wasn't showing the match me punters would just go elsewhere.'

Stan: 'Because it's cheaper than paying the subscription. In business it is best to save money when you can. And the prices of subscriptions are getting ridiculous now for pubs. All subscription providers charge too much. If things were cheaper, I'd probably do it differently. If I didn't show Premier League matches me punters would go elsewhere. My pub is more appealing than others coz I show matches other pubs don't... And people who can't afford a subscription at home can come here to watch it and have a pint. I can get all the matches on my special box.'

Unsurprisingly, both Stan and Joe had the same two motivations for purchasing an illegal sports subscription: to save money on expensive legal subscriptions and to offer a greater variety of matches which, in turn, would attract more punters to buy drinks.

I wanted to understand how much they were saving but, when I asked them how much the legal and illegal subscription cost, they would not tell me.

Consequently, I asked my NETS participant, who said it costs pubs ‘thousands of pounds’ for a commercial licence to broadcast Sky Sports or BT Sports and the price depended on the size of the pub, where it was located, and how many people came in. Further to saving money, Stan and Joe also explained that an illegal sports subscription was more beneficial than a legal one because it offered foreign matches and Premier League matches aired at 3pm on Saturdays, which are unavailable with a legal sports subscription. Therefore, they could bring sports-focused customers into their pubs instead of elsewhere. If they did not engage in illegal streaming, they reported that it would have resulted in them being forced to close as most pubs in the area have. They were aware of the risks that engaging in illegal streaming in commercial premises entails but reported that the benefit of staying in business outweighed the risk of penalties. Therefore, these landlords can be understood as rational actors as they had conducted a cost-benefit analysis. It is common for public houses to illegally stream sports and to present themselves as victims being forced to break the law because they cannot afford an expensive commercial sports licence (Federation Against Copyright Theft (FACT), 2015 a, b, c, d, e, f, 2016a, b, c).

I aimed to understand the ISSs market including how traders identify and recruit potential customers, how much they charge, and what payment methods they accept. First, I wanted to understand how my landlords became users of ISSs. Therefore, I asked who sold them their cheap sports subscription.

Stan: ‘I had a special box now I’ve got a special stick. Well, some bloke came in and said he could “guarantee a good quality stream of Premier League footy and matches on foreign channels for a set price”. You can get an Amazon firestick and subscription on an app through that which a kind gentleman provides. It gives you every channel you would get from Sky so Sky Sports and that. You pay a monthly subscription at a much cheaper rate than the legit providers’.

Joe: ‘Some bloke walked in and said I can do you a solid right, can get you the EPL [English Premier League] matches and foreign matches for a fixed set up. Was a good deal so I took it. 20, 40 quid for the box they’re not that expensive now, was more for the subscription’.

Even though they were interviewed separately both landlords told a similar story about how they purchased their illegal subscriptions. This suggests that they may have been approached by the same trader or their experiences may have been common in venues that use ISSs. The latter is more likely as several traders have been prosecuted in England for selling to pubs (Intellectual Property Office (IPO), 2019; 2020).

Understandably, Stan was cautious about purchasing an illegal service from a stranger as he was risking a penalty if the trader was an undercover police officer or running a scam. Subsequently, Stan said he asked the trader whether he had sold to other pubs that could 'vouch' for him before he purchased this service. To reassure Stan, this man provided the names of other pubs in Northeast England that used his services. As Stan knew the owner of one of these pubs, he contacted this landlord who vouched for the trader. This is similar to the role and importance of trust in other illegal markets, particularly closed drugs markets (Broadhurst et al., 2005; Matrix Knowledge Group (MKG), 2007; May and Hough, 2004; Waldorf and Murphy, 1995). Stan or other pub landlords could have easily used this information to inform on other local pubs to remove the competition, although this was unlikely because snitching or otherwise aiding the cops was taboo in the local culture (section 7.7).

In addition to his role as a ISS supplier in his pub, Stan also occupied the role of ISD trader (see section 6.4.1.4). But Stan purchased ISDs for resale to customers from a different trader than the one from which he had purchased his streaming devices with an illegal subscription to be used in his pub. This is interesting because even though the markets are similar. it suggests that different people are involved in the ISD and the ISS markets.

To further understand how ISS sellers operated I asked Joe and Stan how they paid for their illegal subscriptions.

Stan: 'You can pay him through bank transfer or cash. I paid in cash coz it's untraceable, they can't trace it to you or your bank account when you pay with cash'.

Joe: *'The bloke said cash or card. I said cash. He comes in every month, and I pay him, so there's no virtual footprint then'*.

Interestingly, the ISS sellers here were happy to receive payment in various ways, including cards and bank transfers. However, both Stan and Joe paid by cash as they perceived this to be safer. This was unusual as some studies on offline retail drugs (Pearson and Hobbs, 2001, 2004; Taylor and Potter, 2013; Venkatesh, 2008; Williams, 1989), street ticket touts (Moretti, 2017; 2023; Sugden, 2002), and counterfeit goods markets (Antonopoulos et al., 2018) have shown that traders only accept cash from their customers.

My pubs demonstrate that using ISSs was prevalent in public houses within deprived areas in Northeast England. Although the clientele within the pubs of study were different, they both had a culture in which crime was normal, and outsiders were treated with hostility. The ISD trade is quite widespread at least within the contexts of my research and it is tolerated in a social context where crime is common and normalised and where respect for authority (especially the police) is low. These key findings helped to understand some of the points picked up in Chapter seven, by exploring the relationship between culture, risk, and market participation.

5.3 Actors involved in the ISD market

This section looks at the actors involved in the ISD market I studied. My market participants included buyers who purchased ISDs for home use, household users, and sellers of ISDs (see section 4.1). It included buyers who purchased ISSs for use at pubs and users of ISSs at pubs. There was significant overlap in the groups, with some individuals fitting into more than one category. Stan, for example, fits into all these groups as a landlord that purchased and used ISSs in his pub, sold ISDs, and bought an ISD to use at home.

I identified two types of buyers of devices that provided access to illegal streaming services- landlords who purchased devices with ISSs to show sports in their commercial premises, and household buyers who purchased ISDs for personal use in their private homes. The difference is that pubs paid for access to illegal streaming services while households did not. Similarly, I identified two types of 'consumer' or 'end-user' - and related places of use: my clientele

watching illegally streamed sports in commercial premises, and household users watching illegally streamed content in private homes. This could be interpreted as a four-part typology. However, most of my patrons watch illegally streamed football in pubs *and* illegally streamed films at home. Therefore, household users of ISDs and pub users of ISSs overlap. Additionally, the buyer and end-user groups overlap. All buyers I spoke to were users, but not all users were buyers. There were always more end-users than there were buyers - watching sports, films or TV shows is often a communal experience. Similar patterns have been identified within the cannabis market in which lots of users never buy drugs but instead only consume what is shared socially, as smoking cannabis is often a communal experience (Potter, 2010; Chatwin and Potter, 2014).

Within Joe's Tavern, the clientele was always White British with a Northern accent. I never saw any non-white clientele at Joe's and the regular patrons told me they did not either. My contacts in Springfield described themselves as 'White British' and coming from a 'working-class background'. Unsurprisingly, their descriptions of what it meant to be working class indicated that they used this term as an alternative word for living in poverty as stating 'I am working class' has less stigma attached than stating 'I am poor'. They commented that people they knew who had ISDs also shared this background which implies people living in poverty are more likely to be ISD consumers.

Despite there being different ways to define and measure poverty, there is consensus amongst academics that 'being in poverty is when your resources are not enough to meet the cost of your minimum needs, including taking part in society' (JRF, 2020:89). Most of my sample provided examples that demonstrated they were suffering from 'material deprivation'. This is one measure of poverty, 'when people say they are unable to access or afford a range of particular goods and activities that are typical in society at a given point in time' (JRF, 2020:89). These are a few examples, but the list is endless. Some of my contacts had driving licences, but could not afford a car. Some participants did not go on holiday abroad until their 20s or 30s because when they were children their parents could not afford to, instead they went on holidays to caravans or camping sites. My market participants were living in poverty when they were children, and sadly, they are still living in poverty now. Some could not afford

childcare and subsequently relied on friends, family, and free childcare centres when they went to work. Both my employed and unemployed participants said they were entitled to most social welfare benefits including housing and child benefits, and working tax credits.

Most of my contacts in Springfield had been in employment their entire lives since leaving school at sixteen. None of them had been to university, which was to be expected considering the poverty statistics which show it has low educational attainment compared to other regions in the UK (JRF, 2020). Poverty impacts educational attainment. Rhianna was the only participant who chose to consider further education as she was hoping to go to university, but she never did, getting a full-time job instead. This was unsurprising as she reported that no one within her social network, family or neighbourhood went to university. Some participants aged 18-30, had attained industry-specific qualifications (NVQs, BTECs etc.), going to college for a few days a week as it was mandatory as part of their manual labour job or in the health and beauty sector. In contrast, all the participants I spoke to aged 40 and above said that after leaving school they did apprenticeships in manual labour jobs, then did factory work and different low-skilled jobs. The participants I spoke to aged 40 and above were secondary school educated; their highest qualification was the equivalent to GCSE (an O-level). Unsurprisingly, as my participants in Springfield considered themselves to be working class none of them had jobs in management - apart from Joe, as a pub landlord.

I now move on to describing my participants at Beachland. They were mostly regulars at Stan's Place, and they fell into two main groups: the locals, who were demographically and economically similar to the Springfield group, and the student group. Students implied they were living in poverty because they lived in low-quality student housing and were constantly in their bank's overdraft, this is not uncommon for students from less wealthy backgrounds. Locals included my key participant, Peter, and his associates. Locals said they were born in the region of study and had lived or worked there for their entire lives. The locals at Beachland had a similar educational and occupational background to the Springfield group. The student group had part-time low-skilled jobs including bar

staff, waiters/waitresses, and shop workers. Again, this was to be expected as lots of working-class students have unskilled jobs.

Across both study areas, all my market participants were working class. ISD buyers were mostly male, and end-users were a mixture of men and women. My ISD traders were all men. My contacts told me that all the people they know who trade ISDs are men, and most of the people they know who have purchased an ISD are also men. When they traded, my sellers' ages ranged between 22 and 60. When they purchased or used ISDs, buyers' and end-users' ages ranged between 22 and 70.

The demographics of those involved in the ISD market I studied might have been different if the research had been conducted in different places. My access to my group stemmed from my working-class background. At the time of my fieldwork, I had a working-class job. I did not know middle-class people apart from staff and students at the university I studied at and when I went to academic conferences. Therefore, I was unable to recruit any middle-class people. At conferences academics told me they knew of university professors who were ISD users, but they were unwilling to provide the names of these individuals. I expect that this was to protect their reputations (see Ross *et al.*, 2020 for a discussion of how academics are reluctant to discuss their involvement in illegal markets). Surprisingly, Torrent Freak also found that people in powerful positions (that could clearly afford legitimate subscriptions), including members of parliament, were ISD users (Maxwell, 2016d). This shows ISD use is not an exclusively working-class activity, suggesting that theories to explain digital piracy need to go beyond theories that link poverty to crime.

In the towns I studied, the ISD trade was a marketplace dominated by white working-class men. This finding might also be a result of my sampling technique rather than a reflection of the characteristics of the ISD market. Or it might be - and this seems more likely - that men dominate in these roles as a reflection of broader gender roles in these socio-demographic/cultural contexts (Ancrum and Treadwell, 2016). Numerous studies have shown that men dominate illegal markets (Denton and O'Malley, 1999; Grundetjern and Sandberg, 2012; Ludwick, Murphy and Sales, 2015; Fleetwood *et al.*, 2020; Hobbs, 1995; Zaitch, 2002),

particularly white working-class men (Ancrum and Treadwell, 2016; Fraser and Hobbs, 2017).

Working-class men tend to dominate in most areas of crime, especially street crimes such as selling illegal goods (Hobbs, 2013), and there is a lot of literature on why that might be the case (Cohen, 1997; Webster, 2008). Individuals from socio-economically-deprived backgrounds can be viewed as the 'usual suspects... routinely harvested by the criminal justice system' (Hobbs, 2013:2). Relevant here is Merton's (1957) strain theory, particularly the idea that the working-class have a lack of legitimate opportunities to achieve success consequently they turn to crime.

5.3.3 Criminal careers

I asked suppliers whether they were involved in other illegal markets or other crimes to understand their criminal career histories. (See Sullivan and Piquero, 2016 for a review of the criminal careers literature). Interestingly, three of my traders left one illicit market to enter another. Gareth, Marcus, and James shifted from selling pirated DVDs to pirated android boxes (PABs). In contrast, two traders shifted from selling one type of illicit product to another within the same illicit market. Both Ralph and Stan shifted the type of streaming device that they sold from standard to 4K PABs as better technology became available.

Years ago, Allan sold bootlegged tobacco and pirated DVDs to his social network and most recently worked with Lee to advertise his illegal modification services (IMS) when the legal streaming market became popular. Allan stopped selling pirated DVDs soon after people at his workplace started selling PABs. Marcus also previously sold bootlegged tobacco. They both stopped when the tobacco taxes abroad increased to the extent it was no longer worth the risk of a high penalty if apprehended.

'Years ago, I used to bring back tobacco for my friends but the price of it has stopped people bringing it back to sell. It's only worth bringing back for your personal use. They put the prices up in Spain and that is what killed it' (Marcus).

They acknowledged that their profits would have increased if they expanded their customer base to beyond their social networks, but they were unwilling to take the extra risk. These traders can be classified as 'commodity hoppers' (Hornsby and Hobbs, 2007:559). Commodity hoppers are people who shift from supplying one illegal product to another (e.g., drugs to tobacco), which is often due to the market they shift to being perceived as less-risky (Desroches, 2007; Dorn et al., 1992, 1998; Hobbs, 1995; Hornsby and Hobbs, 2007). But in relation to ISDs the reason for the shift was technological developments which resulted in changes in consumer demand. Some people no longer wanted what traders were selling therefore they would not have made money if they continued selling pirated DVDs.

Other traders in my study were different from those just mentioned because they sold multiple illicit products simultaneously. Zack was a drug dealer who also sold PABs.

Fieldnote summary: Porn Star's friends described him as being someone who 'would sell anything that he could get his hands on'. They laughed as they described him as a 'modern-day Del Boy' - it was clear they liked this character but unclear whether it was a compliment or an insult to describe a trader as being like him. Del Boy is a fictional character from a television show called Only Fools and Horses. He sold products for profit, regardless of whether they were illegal or not, if there was a demand for them.

These traders can be classed as 'criminal diversifiers' (Dorn et al., 1992), criminal enterprises that expanded their existing illegal operations to include drugs (in Dorn et al., original work; ISD in this study) to make more money. Other traders sold illicit and licit products simultaneously.

Fieldnotes: During the outbreak of Covid-19, some traders expanded their enterprises to include selling personal protective equipment (e.g., hand sanitizer, face masks) and essential products (e.g., long-life food) that shops had restrictions on how many a person could buy due to national supply shortages. They carried a big shopping bag with goods ready to sell in pubs and clubs. Then, when their bag was empty, they asked customers what other shopping they wanted. But they did not take

customer orders or take payments they said: 'Tell me what you want, and I will do my best to get it'. They each explained they drove around different shops bulk buying products to resell at higher prices than they paid to make a profit.

These traders demonstrated entrepreneurial traits, similar to traders reselling rationed goods in World Wars One and Two (Fraser and Morton, 1995), by expanding their enterprises to make more money in response to consumer demand. During the initial outbreak of Covid-19, there was not enough supply to meet demand for essential goods which created an opportunity for entrepreneurs, such as some of my profit-driven traders, to purchase and resell goods. This finding reflected research on illegal markets which shows that profit-driven traders are sometimes involved in multiple illegal markets simultaneously or sell more than one type of illegal drug to make money (Dorn et al., 1992; Hornsby and Hobbs, 2007).

I identified two groups of ISD traders based on their criminal careers: commodity hoppers and criminal diversifiers. The key difference is the former shifted from selling within one illegal market (DVDs) to another (ISDs) due to changes in the digital piracy market. The latter expanded their criminal enterprises by selling an additional product to make more money and to expand their customer base. Both groups can also be categorised as criminal entrepreneurs as the term is wide-ranging. This term was defined in section 3.3.2 as someone who is business-minded, flexible, adaptive, innovative, and profit-motivated (Adler, 1993). It can include criminals shifting between illegal markets in response to increased demand or expanding their illegal enterprises to include more commodities as demand for a product increases and to make more money (Dorn et al., 1992; Hornsby and Hobbs, 2007).

As some traders were involved in multiple illegal markets simultaneously while others were not, I probed further to ascertain why some traders did not enter other markets. Interestingly, their reasons relate to their motivations for entering the ISD trade, their risk-averse approach to trading, and the techniques of neutralisation (TONs) they used. Some ISD traders reported that they did not get

involved in other illegal markets because they did not want to, even though they knew there was demand for the product therefore money could be made.

I asked traders whether they sold drugs. Some traders reported that there was demand for 'soft drugs' amongst people within their social circles yet they did not trade them. Several traders expressed similar views as the following:

Ralph: 'If you sell drugs there is rivalry and obviously you would be muscling in on their turf and that causes more problems than what it is worth. It's organised gangs that deal and they have to send a message if you sell drugs. Selling boxes is a bit different to drugs. And I am selling boxes so I am not muscling in on their turf and they could potentially be customers themselves and buy my boxes.'

Taylor: 'When new neighbours started selling drugs, they did not last very long. Their wheelie bin got set on fire! They moved out the next week!'

Some traders did not want to sell drugs because they took a risk-averse approach to entering illegal markets and viewed drug dealing to pose greater risks than the ISD market (chapter seven). For them risk came in two forms. They reported that drug dealing was a violent market because violent criminals were involved (see section 7.6), such as the ones Lee and Allan were scared to talk about. And they did not want to compete with these criminals due to fears of victimisation. Traders felt that if they traded drugs, violent criminals would find out. They reported drug dealing carried more severe penalties than ISD trading, with a greater risk of receiving a custodial sentence (see section 6.3.2).

Other than risks, another reason traders reported they did not sell hard drugs was because they cause harm while using ISDs do not (see section 5.8.2). And drugs have a different customer base than ISDs. My traders distinguished between drugs using the phrases 'hard drugs' (e.g., heroin) and 'soft drugs' (e.g., cannabis). In explaining why they did not sell drugs, several traders expressed similar views as Stan:

'No, different market, different clientele. It depends on what kind of drugs you are talking about hard drugs or soft drugs... coz there is a difference. People selling drugs that are addictive to people and can cause them

harm, wronging's and chavs are ya clientele. People that buy the boxes is a different class of clientele. You get a few well-spoken people, and some are chavs. Most of the time you aren't getting value for money in these [legal] subscription services'.

I also found that some traders who were patrons at Joe's Tavern stated they did not get involved in trading counterfeit luxury goods (e.g., bags, clothes and scarfs) because that demand was already being met by others at the pub including by people within their social circles.

Interestingly, all my money-orientated traders, apart from Porn Star, viewed crime as a source of additional income, but it was not their primary income as they had full-time legitimate jobs.

Fieldnote summary: Porn Star was dependent on the profits from his illegal activities for his leisure activities ('binge drinking' and gambling at his local pubs). He was unemployed and dependent on social security benefits. People who knew him described him as 'a smelly alcoholic that was 100% dependent on the state' and 'he was into dodgy dealing for the long haul'. They described him as 'a benefit scrounger' who was claiming 'all the benefits' that he was entitled to. They also said, 'it is not something to be proud of being dependent on the state'.

These descriptions implied that others disapproved of Porn Star's activities. This attitude reflects the 1834 English Poor Law, which distinguished between the 'deserving' and the 'undeserving poor' (Golightley and Holloway, 2016:1). Clearly, Porn Star's associates believed he was the latter.

5.4 Technological Evolution of the ISD market

Now that I have introduced the people and the places of study, I describe the changes within the ISD marketplace that my participants experienced. As a reminder, this study uses the term ISD to refer to streaming devices that have been illegally modified with Kodi multimedia player and free pirated add-ons. There are two types of ISDs that my consumers used: android boxes or Amazon firesticks which will be referred to as pirated android boxes (PABs) and pirated firesticks (PFS). The devices my participants used to illegally stream changed

over time. When the ISD market emerged in late 2014/early 2015, my participants were only using PABs. My consumers within Springfield gradually shifted from PABs to PFS. Some consumers in Beachland shifted from standard PABs to PFS to 4K PABs, or a variation of these, as better technology (e.g., higher quality streaming devices) became available. My pub landlords also reported shifting from using android boxes to firesticks to access ISSs; this shift in device occurred within both illegal streaming service markets, the free one and the one that required payment.

I asked ISD users why they shifted the streaming device they used to access free streaming channels. Most users reported that they shifted from android boxes to firesticks for two reasons. One reason was that they had bought several PABs, and every device had broken, or their current device was 'on its way out' and they needed to buy a replacement ISD. And they were 'sick of' buying PABs or financially they could not afford to buy another PAB because based on their past experiences there was a strong likelihood that it would break. Several of my PAB users said when PABs first came out, they often broke and they needed to purchase another one (see section 6.3.2.2). The second reason was because their friends had told them that firesticks had a much better picture quality and were more user-friendly than PABs. Most of my consumers that owned PABs and PFS reported that PFS were better because they encountered fewer problems with them. Therefore, most would not return to using PABs.

An important difference between my towns was that some consumers in Beachland shifted from standard PABs or PFS to 4K PABs while those in Springfield did not. When I asked why they provided two reasons. Firstly, because they were experiencing problems accessing pirated content on their firestick, their friends told them this was not a problem with 4K PABs. Secondly, their friends had told them that 4K PABs provided better picture quality than firesticks because they used better/newer technology.

The shift from PABs to PFS was not isolated to the towns of study. It reflected a national consumer shift that occurred when new technology was developed (see section 2.3). My NETS participant felt that as soon as the Amazon Firestick entered the market (in 2015) someone 'cracked it' and it began to be

used as an ISD. As the PFS market rapidly expanded nationally when firesticks were released this is likely to be true. Surprisingly, none of my participants were using PFS in 2015 therefore they were different to some ISD users at the national level. But this likely reflected local availability and consumer demand as none of the traders in my study were selling PFS or offering IMS for firesticks in 2015 (explored further in chapter six). Interestingly, there was no mention of the trade of 4K PABs in FACT (2017a; 2020) or IPO (2017b; 2018b, 2019) press releases or reports or the Industry Trust (2016) consumer survey into ISDs, suggesting this shift in streaming devices may have been restricted to my study or other sources did not record nuances within the market.

My NETS participant also attributed the consumer shift in streaming devices to technological developments and reported this shift had also occurred within the legal streaming market. This was not surprising as changes within the legal and illegal market often occur at the same time, for example the shift from DVDs to digital downloads. Changes to illegal markets reflect changes to legal markets (Hobbs, 2013). Crime and criminals adapt to changes in technology. As discussed in section 3.3.1, traders of illegal goods shifted from trading at offline to online markets when the latter emerged and became more popular (Barratt and Aldridge, 2016; Hall, and Antonopoulos, 2015; Martin, 2014). The growth of the internet led to the growth of cybercrimes and led to opportunities for criminal networking, planning, and the dissemination of criminal knowledge to occur online (Mann and Sutton, 1998; Yar, 2006). How the illegal streaming market changed in relation to technological developments is explored further when I discuss the decline of the ISD market (chapter eight).

5.5 The rise of the ISD market

The following section aims to understand why the ISD market emerged within the towns of study. This required understanding the supply and demand side from a micro-level – and relating this to macro-level (i.e., national and international) trends. From an economic perspective, markets emerge when there is both supply and demand for a good or service (Arlacchi, 1998; Beckert and Wehinger, 2013). They grow if supply and demand increase. The market emerged because there was both supply and demand for ISDs. The reasons that the ISD market

emerged, according to the UK government and anti-piracy agencies, were described earlier in section 2.3.

5.6 Consumer's motivations for engaging in illegal streaming

Demand increased as more people became aware of illegal streaming options. As a reminder from chapter two, people can engage in illegal streaming in different ways such as accessing free streaming services via apps or visiting pirated websites directly. And they can access these free services on different devices (laptops, smartphones, set box boxes). I wanted to know why my ISD users were using a pirated app to access illegally streaming content rather than visiting streaming sites directly and why they purchased streaming devices to access streamed content rather than just using smart devices they already owned. I asked household ISD users about how and why they came to engage in illegal streaming via set-top boxes or sticks. My ISD buyers all reported that they found out about this market via word of mouth, with their friends recommending PABs to them.

Overall, there were three different components to *why* people purchased and used ISDs. Getting cheaper access to streamed content or to view content that they could not access otherwise were the major reasons for engaging with digital piracy in the first place. But some consumers also explained why they paid someone to illegally modify their streaming device rather than doing it themselves. And others explained why they paid for an ISD rather than installing Kodi and illegal modifications onto a device they already owned.

5.6.1 Why engage in digital piracy?

There were two main motivations ISD household users identified, and most respondents mentioned both. My consumers described themselves as living in poverty (see section 5.3), and some could not afford to pay subscription fees to legitimate providers or to multiple video subscriptions (they cited Amazon, Netflix, Sky Sports, BT Sports, etc.). This is not a surprising finding as the relationship between poverty and crime is well established within criminology (Hall et al., 2008; von Lampe, Kurti, and Johnson, 2015). For example, Merton's (1957) Strain Theory posits that people resolve the strain between aspiration and (licit) means by resorting to illicit activity to provide the means. We can apply this

to illegal streaming: people who are too poor to afford subscriptions turn to illegal means to gain access.

Rhianna: *'I have the firestick to watch Netflix TV shows, I watch Lucifer it is really good. I couldn't afford Netflix, Amazon, and the rest of it'*

Allan: *'If you wanted to watch the Champions League or if you wanted to watch [local football team] it is on there, you can watch every one of the games on here. Best of all it is free, I couldn't pay for them all with all my grandkids'*

Fieldnotes: *Ned explained that there are different types of Sky packages. Sky basic is the cheapest costing around £18 a month. Sky basic with broadband bundle costs £43. If you want to watch the sports, that is £23 extra for a bundle of all the sports. But if you only like one sport it is £18 for the extra sports channels, so £18 for football or cricket or golf or Formula one. Purchasing all these sports packages was too expensive for 'the regular Joe'.*

Some consumers also reported that cinema tickets were too expensive. Therefore, they engaged in the illegal streaming market because the equivalent legal market was too expensive. The attraction of ISDs was that they provided unlimited access to movies, TV shows, and sports after users had paid a one-off fee for the ISD or IMS.

My consumers who purchased ISDs due to the price difference between illegal and legal streaming services can be seen as rational economic actors. This finding reflects other studies of illegal markets that have a legal-illegal crossover, which have shown that consumers purchase counterfeit goods (Albers-Miller, 1999; Chaudhry and Stumpf, 2011; Bloch et al., 1993; Matos et al., 2007; Moores and Dhaliwal, 2004; Tom et al., 1998; Wee et al., 1995; Wang et al., 2005; Stead et al., 2013) and bootlegged tobacco (Hornsby and Hobbs, 2007; Wilshire et al., 2001) due to the price difference between legal and illegal markets. It also fits with some consumer attitude surveys explaining digital piracy which have shown that, among other factors, people engage in illegal downloading because the illegal market is free while the legal market is expensive (Higgins et al., 2006;

Higgins et al., 2008; Hinduja and Ingram 2008; Hinduja, 2007; Morris and Higgins, 2009).

However, saving money was not the only reason for wanting ISDs. For some consumers, the main motivation for participating in illegal streaming was viewing content they could not access otherwise.

Jessica: *'All the latest TV shows are on Kodi, TV shows that are in America, so I don't have to wait months before the show is on Sky'*.

Gordan: *'You get all the movies, the good ones, the ones that's on at the cinema, it's great I don't even have to leave my house'*.

Murphy: *'I watched Game of Thrones at the same time as people in America, so there was no spoiler alerts'*.

These three all wanted to watch movies or TV shows that were currently being aired in America but had not been released yet in the UK. Likewise, some of my sports-focused household users wanted to watch 'foreign matches' which were unavailable in the UK but were being aired on 'foreign channels' - similarly, my pub landlords reported this reason for illegally streaming via ISSs in their pubs (section 5.2). This theme has also been identified in Miyazaki et al. (2009) consumer attitude study on digital piracy, which found that one reason consumers engage in video piracy is that there is a lack of channel access.

5.6.2 Why not do it yourself?

Understanding why people wanted to access illegally streamed materials only goes part way to understanding why people entered the ISD market. The reasons household ISD users did not illegally modify their streaming devices themselves, but instead paid someone else to do it, can be grouped into three categories. Interestingly, each respondent only identified one of these reasons. First, consumers lacked the technical skills to modify devices themselves. This response was common amongst my older consumers. Research shows competence with new technologies declines with age (Czaja *et al.*, 2006; Vaportzis *et al.*, 2017) therefore, it was unsurprising that my data showed a similar pattern.

Novice technology user Mr. Parker told me he did not know how to get onto YouTube to watch videos and needed assistance from his friends, children or co-workers to do 'anything on the computer'. At a house party, after Allan provided a visual demonstration of how to use ISDs, Dennis said: 'I am not as clued up about dodgy boxes as [Allan]'.

My other consumers shared similar stories, as exemplified by Gordan:

'[George, Gordan's partner] doesn't have a clue how to use the Firestick he likes the history documentaries on normal TV. I tell him he can watch all the history documentaries that he wants in the Firestick. When I come in from work, I put the firestick straight on for him'.

The second category is risk-averse consumers who knew how to illegally modify a streaming device themselves but did not want to because they were aware that watching illegally streamed content on streaming devices was illegal. They held a misguided belief that if they were caught illegally streaming content by their Internet Service Provider (ISP) and if they claimed that 'it [streaming device] came like that when I bought it' then they could not receive punishment for it. Their argument was that to be prosecuted for watching illegally streamed content on ISDs they would have to know that what they had purchased was illegal. Few consumers I spoke to held this view. The ones that did, misunderstood the law because using ISDs is illegal (see section 2.2.6).

The third category of consumers were the ones who knew how to illegally modify streaming devices but did not want to even though it would save them money because it would take time and effort. Some consumers commented they were 'too lazy' to modify the device. Peter expressed this succinctly: 'I can't be arsed with faffing on, messing around with the stick. I would rather just pay someone a tenner, and there you go, done sorted'.

5.6.3 Why do you not use your laptop?

Kodi and illegal modifications can be installed on a laptop or desktop computer, but my ISD users chose to purchase a PAB or buy a firestick and then pay someone to illegally modify it. When I asked why they did this, their responses fell into two categories. First, most recognised that ISDs were convenient to use

as they could be plugged straight into their TV and used immediately. As Murphy said, 'It is a plug and play device, easy to use, convenient'.

A second category was when consumers did not want to install Kodi with illegal modifications onto their laptop in case it became infected with a virus or malware. Security threats like computer viruses are commonly cited technical risks of illegal downloading (Ibrahim and Loa Bara, 2011; Kos Koklic et al., 2016). This response only came up with my student population who owned laptops for university work. As Elsa said, 'dodgy boxes are easy to use and cheap enough to replace'.

Fieldnote summary: Elsa told me that she bought a PAB because when she illegally downloaded movies and TV shows onto her laptop it broke, because it became infected, and she had to buy a replacement. She reported that she did not put pirated Kodi on her new laptop in case it broke. Instead, she bought a PAB because if that broke it was not that expensive to replace.

5.7 Seller's motivations for supplying ISDs or IMS

The market for ISDs and IMS emerged due to consumer demand. Illegal markets are usually demand-led; suppliers will only enter when responding to consumer demand. When applying the rational actor perspective to the study of markets on the supply side, traders will enter when the benefits of engaging outweigh the risks (as explored in section 3.3.2). My traders had different motivations: profit or non-profit (explored further in section 6.2). Interestingly, most of my PAB sellers reported that they started trading when they believed the ISD market first emerged. In contrast, sellers offering IMS for firesticks entered after PABs had been out for several years. Yet regardless of when they entered the market, most reported that they entered because the trade provided a way to make money and was a low-risk activity, with a low risk of getting caught and receiving a custodial sentence (chapter seven).

5.8 Other reasons markets emerge

Factors other than motivations, including how traders and consumers got involved in the market and how they manage their deviant identities, must also be considered.

5.8.1 How traders and consumers got involved in the ISD market

How traders and consumers got involved is an important part of the overall picture of the rise of the ISD market. I asked consumers how they got involved in the ISD market; how they heard about it. The most common response was 'word-of-mouth': someone introduced them to the market, a friend, family member or work colleague, or someone in their local pub.

When I asked suppliers how they got involved, most reported that someone they trusted introduced them to the market, as exemplified by Stan, Gareth, and Lee.

Stan: 'When I realised there was a market for them, and someone suggested they had some for sale and they could supply me with some'.

Gareth: 'Well my pal [Anthony] knows I'm a bit of a dab hand with computers, I fix them for a living. He said do I fancy making some extra money, course I said yes, I'm not going to turn it down am I?'.

Lee: 'Everyone round here had a dodgy box, they never last long. [A friend] said everyone is raging about these new sticks, why don't you put Kodi and that on sticks? Great idea! So, I did'.

This is also a common reason for entering drugs markets, someone they trust, sometimes a friend, family member, or someone they shared a prison cell with, suggested they start selling or smuggling (Adler, 1993; Fleetwood, 2014; Pearson and Hobbs, 2001). Interestingly, two of my traders who were the first to sell PABs in their community, James and Marcus, were not introduced to the market by other people. They thought of the idea of selling PABs after discovering pirated Kodi could be installed on android boxes after reading this on online technology forums. This suggests they created consumer demand for ISDs in their community.

5.8.2 Managing deviant identities

As discussed in section 3.3.3, for an illegal market to emerge, there must be more than an opportunity to make money. Suppliers of illegal products and services must also be willing to disregard the moral judgement attached to their trade (Beckert and Wehinger, 2013). I aimed to understand how my suppliers perceived themselves as this may reveal how they justify their involvement in this illegal activity. I also wanted to understand how my consumers viewed ISD traders and illegal streaming in general. These discussions revealed that some of my participants were able to adopt a non-deviant identity by employing two of Sykes and Matza's (1957) techniques of neutralisation (TON): denial of injury and denial of the victim. My participants denied that video subscription providers and content producers (herein the entertainment industry) are the victims of illegal streaming. Many participants used the phrase 'victimless crime'. Several stated something similar to Peter: 'How can people with lots of money that are exploiting poor people be victims? We are the victims. We can't afford the services they offer'.

My participants felt that the entertainment industry could afford the loss of profits that it claimed to be experiencing due to illegal streaming. Peter went on: '[the entertainment industry] are greedy, money-robbing bastards, and they already have enough money. They don't need anymore'. Some ISD participants also argued that the entertainment industry is not actually losing money due to illegal streaming because they would not pay for these services legally even if they were not illegally available or even if they could afford to. Mr. Parker: 'Premier League are victims, but they are not losing millions coz if people didn't have a stick, they wouldn't be paying anyways coz they couldn't afford Sky. That's why they have the stick! They would just go without!' Expressing an anti-big business sentiment has also been identified as a reason for digital piracy in Kwong *et al.*, (2003) consumer attitude survey of digital pirates.

Another way my contacts justified trading or using ISDs was by depicting traders as Robin Hood figures. This is another example of how the '[law breaker] moves himself into the position of an avenger and the victim is transformed into a wrong-doer' (Sykes and Matza, 2008:668). Several traders (including Lee and Marcus) described themselves as 'Robin Hood'. Several consumers expressed

similar views to Vicky: '[ISD traders] are like Robin Hood taking from the rich and giving to the poor'. Describing traders of counterfeit goods as a robin hood figure is a theme that has also been identified in Chaudhry and Zimmerman (2013) consumer attitude survey of counterfeit goods.

But interestingly, there was some disagreement amongst market participants about whether illegal streaming really counted as theft. Jessica expressed what others were thinking: 'Watching stuff on the dodgy stick is not like going into HMV and stealing a DVD, the movie is still there after I've watched it so how can that be theft?'. These participants were referring to, and making fun of, the Crimestoppers anti-piracy campaign slogan: 'you wouldn't steal a DVD...piracy is a crime' (SephirothKefka, 2022). Nevertheless, there was a consensus that traders were redistributing wealth from the rich to the poor. This justification fits the denial of victim TON.

My participants also denied that illegal streaming causes harm, therefore applying the denial of injury TON, which involves justifying the conduct itself as acceptable. Their explanations overlapped with the denial of victim TON. Several of my ISD traders commented that they did not perceive themselves as 'real criminals' and they did not view trading ISDs or illegal streaming as 'real crime.'

Allan: 'The wheelers and dealers round here will beat you up for looking at them funny. Never mind not paying 'em on time, they are the real criminals!'

Ralph: 'I see myself as an entrepreneur! In the case of making money for myself'

This was one way that my traders managed their deviant identities and neutralised their illicit actions: by distancing themselves from the idea of the 'real criminal' and the negative assumptions associated with this label. My traders reported that drug dealing is a 'real crime', and drug dealers are 'real criminals,' because not only does drug dealing harm people by causing health problems, including addiction, but drug dealers have a reputation for violence (section 6.3.2.). They viewed ISD trading as not harming anyone; traders and end-users felt that ISD trading is a victimless crime and acceptable compared to other acts

of wrongdoing; they neutralised the financial harm trading ISDs causes by comparing the trade to drug dealing where physical harm is caused. My consumers made similar rationalisations, not considering illegal streaming to be a 'real crime' because it does not harm anyone.

In addition to the perceived lack of harm, my participants' perception that ISD traders were not real criminals also related to their perceived likelihood of detection. As will be seen in section 7.8, Gareth did not believe law enforcement would be listening to his phone calls because 'they have real criminals to catch'. Similarly, Marcus reported that police do not have the time or resources to investigate suspected ISD traders as they have 'real criminals to catch'. Both considered ISD trading a low priority for law enforcement compared to real crimes like drug dealing.

My traders seemed to associate the idea of a 'real criminal' with harm. Stan was different as he interpreted a 'real criminal' to be not only someone that sold in large amounts but also someone who operated on a full-time basis.

When I asked Stan why he does not trade in other pubs he said: 'I am not like a proper fucking distributor am I? I just sell them occasionally when someone wants one'. Some traders also stated they were not real criminals because they only sold to friends, whereas 'real criminals' sell to strangers to make money. This idea of being a 'proper distributor' seems similar to the difference between a 'real dealer' and a 'social supplier' seen in the drugs literature (Jacinto *et al.*, 2008).

Unsurprisingly, TON is applicable to those engaged in illegal streaming. Maruna and Copes's (2005) review of the TON literature found that the theory is most applicable to minor types of crimes (e.g., theft) rather than serious crimes, and illegal streaming is a form of theft. Further, TON has been successfully applied as a framework for understanding online music piracy (Ingram and Hinduja, 2008) which, like illegal streaming of video content, is another form of digital piracy/theft.

6- Doing the business: Market structure

This chapter seeks to describe how the ISD retail market was structured. As identified in section 3.3, studies on retail-level illegal markets have identified three broad approaches to constructing typologies based on: who traders sell to, where the trader sells, and the traders' motivations. These typologies enable researchers to observe differences between traders. Yet these typologies are rarely integrated. The ISD trade takes different forms. There were some important differences between my retail suppliers, and they can be broken down across four key dimensions (see Table 6.1) in which differences were observed. The first dimension covered what was being supplied illicitly: products or services. The second involved how suppliers were organised, whether they worked alone or with others. The third dimension involved what suppliers' motivations were: profit or non-profit. The fourth was based on whether suppliers operated within open, closed, or social network markets. These dimensions are described in detail in the following four subsections (6.1 to 6.4), with examples. There were several commonalities across types as well as some important differences; I was able to conclude by developing a typology integrating all four dimensions.

Table 6.1: ISD traders

Key

Town 1: Springfield 2: Beachland 3: Fisherland 4: Sandland

open market trader (OMT), closed market trader (CMT), social network trader (SNS)

pirated android box (PAB), pirated firestick (PFS) illegal modification service (IMS)

Name	Dimension 1 Product or service	Dimension 2 Who they sold to	Dimension 3 Motivation	Dimension 4 Organisational structure	Market entry	Town
Zack	PAB	OMT	Profit	Alone	2015	2
Walter (Pub landlord)	PAB	OMT	Profit	Alone	2015	2
Porn star	PAB	OMT	Profit	Alone	2017	2
Tom	PAB	OMT	Profit	Alone	2017	3
Ralph	standard PABs from 2015-2016 then in 2017 shifted to selling 4K PABs	OMT	Profit	Alone	Around January 2015	2
Stan (pub landlord)	standard PABs from 2015-2016 then in 2017 shifted to	OMT	Profit	Alone	Around January 2015	2

	selling 4K PABs					
Wayne	PABs from 2016-2017 then in late 2017 shifted to selling PFS and offering IMS for PFS	OMT	Profit	Alone	2016	1
Bruce	Sold PABs from 2016-2017 then in late 2017 shifted to selling PFS and offering IMS for PFS	OMT	Profit	Alone	2016	1
Taylor	IMS for android boxes	OMT	Profit	Alone	November 2017	2
Arrow	IMS for android boxes	OMT	Profit	Alone	2016	2
James	PABs	CMT	Profit and social	Alone, occasionally with others	Around January /February 2015	1

Marcus	PABs	CMT	Profit and social	Alone, occasionally with others	Around January /February 2015	1
Anthony and Gareth	PABs	CMT	Profit	Criminal group	December 2015	1
Mackenzie	IMS for droid sticks	CMT	Profit and social	Alone	2016	4
Oliver	IMS for firesticks	CMT	Profit and social	Alone	June 2016	1
Lee and Allan	IMS for firesticks	CMT	Profit and social	Partnership	Winter 2016	1
Aria's brother	IMS for firesticks	SNS	Social	Alone	2017	2
Michael	IMS for firesticks	SNS	Social	Alone	November 2018	2
Carter	IMS for firesticks	SNS	Social	Alone	October 2019	1
Paddy	IMS for boxes	SNS	Social	Alone	October 2018	2

6.1 Dimension one: Types of products/services offered

The first dimension covered what was being supplied. I identified two ISD markets: the market for streaming devices with illegal modifications installed and the market for illegal modification services (IMS) for customers who already owned a streaming device. As such, the former was a market offering an illicit product, while the latter offered an illicit service. I gained knowledge of 21 suppliers (Table 6.1), of which nine only sold ISDs and nine only offered IMS. There was some overlap between the traders involved in the market for illicit products and illicit services because two traders (Wayne and Bruce) offered both. One trader (Anthony) ran an illicit enterprise offering PABs but did not sell them himself.

Any streaming device can be illegally modified (including smartphones, XBOXs, or iPads), but interestingly each of the service providers I encountered only offered their IMS for one type of streaming device. As shown in Table 6.1, of the eleven suppliers that offered an IMS (including Bruce and Wayne), three offered IMS for android boxes, seven for firesticks, and one (Mackenzie) for droid sticks. When I asked each of them why they only provided modification services for one type of device, they described responding to consumer demand.

There were two types of streaming devices that my traders resold with illegal modifications installed: either standard PABs or pirated firestick (PFS). As Table 6.1 shows, apart from Wayne and Bruce no traders sold multiple types of ISD. Both Wayne and Bruce operated separately in Springfield. Interestingly, neither trader sold PABs and PFS at the same time, both reported shifting from selling PABs to PFS and offering IMS for firesticks as technology evolved. Similarly, two other PAB traders, Stan and Ralph (operating separately in Beachland), reported they shifted the device they sold, from standard PABs to 4K PABs, in line with technological developments. As mentioned in section 5.4, consumers in Beachland broadly shifted from using PABs to PFS to 4K PABs as better technology (e.g., higher-quality streaming devices) became available. In Springfield, demand only shifted from PABs to PFS which may explain why no PAB traders offered 4K PABs there.

Traders offering different streaming devices and some shifting the devices they offered led me to wonder whether my consumers shifted due to demand-led factors (changes in technology) or supply-led factors (suppliers pushing the product onto customers). And more broadly, did traders enter the market due to supply or demand-led factors.

Interestingly, while evidence suggests the ISD market is primarily demand-led, there are examples (like Marcus and James) of 'manufactured demand' (Coomber, 2006) and a supply-led market. Several of my traders' quotes suggest the market is demand-led. When I asked why he entered the market, James responded: 'Easy money, I give the people what they want!'. When asked why he stopped trading, Ralph responded: 'Because the market died down...There isn't a market anymore'.

Some of my traders entered the market to meet consumer demand and left when demand had gone away. On the other hand, as traders advertised their ISDs or IMS through word-of-mouth and Marcus refused to sell the pirated DVDs that his customers wanted when he switched to selling PABs (see section 6.4.2.1), parts of the ISD market may have been supply-led.

There are a mixture of demand-led and supply-led factors in the ISD market and the balance of them may have changed over time. For some traders/consumers/parts of the market people buy only what is on offer (i.e., supply led). For other examples, traders respond to demand (demand-led). But it is not possible, nor useful to argue the market is supply-led or demand-led at any given point or any given subset of the market because there is a lot of interplay between these factors.

Apart from Wayne and Bruce, there was no overlap between traders who sold an illicit product and those who offered an illicit service, raising the question of why. None of my PAB traders provided IMS for customers who already had android boxes. Marcus and James explained that when they started selling PABs (2015), which was when they believed they first came out, there was no demand for IMS for android boxes. None of their customers owned android boxes, or knew what set-top boxes were. My ISD users reported that this was because the market for set-top boxes was new, the first one they purchased was a PAB. The main

purpose of set-top boxes is to watch video streaming apps, which was also relatively new. Netflix video streaming service launched in the UK in 2012 (BBC, 2012) and Amazon in 2014 (Svetlik, 2014). Arguably, there was no demand for IMS for android boxes because, as Marcus reported, even when he purchased them in bulk, they were still expensive. It was cheaper for customers to purchase a PAB from a trader rather than purchasing a single box and then paying to get it illegally modified. Yet, that was not the only reason these traders did not offer IMS; they reported that even if their customers already owned android boxes and wanted them illegally modified, they would not have provided such service because they felt it would take away customers from their PAB business. For the same reason, they did not offer to repair their customers' PABs for free if they broke.

Fieldnote summary: Marcus explained that he did not offer a repair service in addition to selling PABs because if his customer's PAB broke, he wanted them to buy another one from him. He said it was expensive to purchase android boxes and he was not making much reselling them therefore he wanted as many customers as possible. James told a similar story to Marcus. Murphy (Marcus's customer) told me that when his PAB broke Marcus apologised and claimed that he got a 'faulty batch' and suggested he buy another one. Murphy refused and said that Marcus should have offered him a replacement. Consequently, Murphy purchased another box from a different trader on eBay partly because it was cheaper and partly because Marcus provided poor customer service. Several of Marcus's customers told a similar story to Murphy.

Interestingly, Wayne and Bruce sold PFS and IMS for firesticks. And they sold PABs, but not IMS for android boxes. As I took a covert approach to researching these two sellers, I was unable to inquire about this, but presumably their explanation may have been similar to Marcus and James's, related to profit opportunities and consumer demand.

Traders that offered IMS for firesticks or Droidsticks did not sell ISDs, apart from Wayne and Bruce. Lee and Oliver sold IMS for firesticks but explained that they did not sell PFS because there was no profit to be made. At the time they

traded, the average price of firesticks was £35 and they could not find firesticks for cheaper, and so could not create a profit margin. Mackenzie made a similar comment about Droidsticks. Lee reported that he found it unusual that Wayne and Bruce were trading PFS in his local pub (Joe's Tavern), wondering how they made a profit. Again, as I took a covert approach with Wayne and Bruce, I did not get the opportunity to ask them this and other questions like where they purchased their firesticks from. I wanted to know how they were able to purchase firesticks at a price lower than the average. Aria's brother, Michael, Carter, and Paddy reported that they did not sell ISDs because they offered their IMS for free, buying then giving away streaming devices would have cost them money.

6.2 Dimension two: organisational structure

The second dimension involved how suppliers were organised - their organisational structure, which involved considering whether suppliers worked alone or with others. I identified three organisational structures in the ISD trade based on the illicit schemes I encountered: sole suppliers, a partnership, and a criminal group. A partnership involves two people collaborating whereas a group involves three or more people collaborating, this distinction was chosen because most definitions that focus on group structure set the minimum limit as three people (Von Lampe, 2016).

By far the most common structure was 'sole suppliers' - individuals working alone, these are explored more in section 6.4 when I distinguish between suppliers based on who they sold to. Ralph (see section 6.4.1.1) and Stan (see section 6.4.1.4) are examples of sole traders of PABs, Taylor (see section 6.4.1.2) and Arrow are examples of sole traders providing IMS. In all cases, the trader worked alone and performed all market roles.

Some traders mostly worked alone but occasionally worked with others. PAB traders Marcus (see section 6.4.2.1) and James are examples of this type. Both were mostly one-man operations who always advertised and illegally modified their PABs themselves, but who sometimes got trusted individuals to drop off and collect payment.

A second structure was an illegal operation involving a trader that permanently worked with a partner but was not part of a criminal group. Lee's

illicit enterprise (see section 6.4.2.2) is an example of this. Lee worked with Allan, to offer IMS. Apart from illegally modifying the device, which Lee did himself, they worked together to perform all roles.

The third structure I identified involved individuals who worked as part of a criminal group. Anthony's illicit enterprise is the only scheme in this study involving a group structure.

6.2.1 Anthony's criminal group

My knowledge of Anthony's operation came from Gareth; I never met Anthony himself. I wanted to find out if my traders worked alone or with others, and I asked Gareth whether he worked with anyone to sell PABs: '[Anthony] didn't want to get his hands dirty so he got people like me to do his dirty work'. Anthony was clearly concerned about his reputation - this was likely because he owned a business within the hospitality sector. If he received a criminal conviction, his business would be threatened.

Fieldnote summary: Anthony funded and operated a regionally based illicit enterprise in multiple towns across Northeast England. Anthony had five associates who worked with him, each operating within a different town. Their role was to illegally modify android boxes and resell them. Anthony acted as a boss/coordinator of a team involved in retail. He distanced himself from the hands-on aspects of his trade. Anthony recruited several individuals, such as Gareth, whom he trusted to conduct business on his behalf to minimise his risk of detection.

Anthony purchased large quantities of android boxes from Chinese wholesalers on Alibaba and paid using PayPal. Gareth said: 'he started off with buying 50 at a time to test the waters then raised it to buying 100 at a time [once he developed a sales network via his associates and established there was strong demand for PABs]'. He stored them in a garage, away from where he lived. Gareth did not know how the boxes got into the UK, where Anthony collected them from, or how Anthony transported them to the storage location.

I asked Gareth how he received his android boxes from Anthony. Gareth explained that Anthony's associates travelled separately to Anthony's garage to pick up android boxes to sell to customers. 'It was like a big garage in the middle of nowhere like you see on Storage Hunters [TV show]'. Interestingly, Gareth never met the four other associates, but he knew they existed from Anthony. Gareth suspected this was intentional to prevent traders from being able to identify each other if anyone was detected by law enforcement.

After purchasing the product traders must advertise and sell their products to potential customers. Gareth said after receiving his android boxes he advertised and developed his customer base via word-of-mouth. He previously sold pirated DVDs to people within his social circle and asked existing customers to recommend him to their friends. He advertised his PABs in the same way. I observed that customers sometimes placed an order at Joe's Tavern but that actual transactions would occur later in a private place (Gareth's house). After texting Gareth to ask when he would be in customers also placed an order by knocking on Gareth's door. His friends had Gareth's number and they shared it with potential customers.

Gareth's customer base demonstrates that he operated as a CMT - selling only to people he knew, or who were introduced to him via trusted intermediaries. Section 7.6 explores why Gareth chose his house as the meeting place.

*Interestingly, Gareth told me that he not only waited until a customer had placed an order before he illegally modified the device, but he also waited until the last minute (e.g., the night before) before passing it to the customer. As part of their role as a distributor for Anthony each of his associates had to illegally modify devices. In Gareth's role as an **illegal modifier**, he aimed to provide his customers with the best illegal add-ons for Kodi. He was able to do this because he explained that when he operated there were websites such as '**TVADDONS**' that provided users with the best legal and illegal third-party add-ons. There were also*

websites and Facebook groups with a list of the latest or the self-proclaimed best third-party add-ons.

Another way that Gareth was different from my other PAB traders, other than his involvement in a group enterprise, was because he occupied an additional role. When customers went to his house to collect their PABs, he gave them a visual demonstration of how to use them. This included describing what pirated add-ons he had installed on the devices and the video content each offered. It also included a demonstration of how to find alternative illegal streaming channels if one of the channels was not working. Interestingly, Gareth commented that there was a demand for this visual demonstration service because when he started trading (in 2015) PABs were new. He expected some of his customers might not have seen a PAB or used Kodi multimedia player and pirated add-ons. Therefore, he knew they would require instructions on how to use it and on what video content was available on it. He commented that he knew most of his customers were not very 'techno savvy' because they were 40 or above: 'If I didn't show them how it worked, they would be giving me a bell asking, how do I work this thing?'

Gareth revealed that the same five associates (including himself) worked with Anthony during the time Anthony ran his illicit enterprise. It is not clear whether Anthony's associates were working for him or with him. Sometimes, Gareth said he worked for Anthony while other times he said he worked with Anthony. Nonetheless, his role remained the same throughout his duration of trading. This is also a common theme identified within illegal markets about hierarchies within trading organisations (von Lampe, 2016).

6.2.2 Discussion on a spectrum

I identified three organisational structures in the ISD trade. A useful way to conceptualise these is to view them on a spectrum with sole traders at one end and those who worked as part of a criminal group at the other. In between these two ideal types is a grey area involving traders not exclusively working alone, but not part of a criminal group. Unsurprisingly, as is common for traders of illegal goods, my traders that worked with others only worked with trusted individuals such as family, friends, or work colleagues (Fraser and Hobbs, 2017; Hornsby

and Hobbs, 2007; L'Hoiry, 2013; Von Lampe and Johansen, 2003; Matrix Knowledge Group (MKG), 2007; Taylor and Potter, 2013). Anthony's five associates were his friends, suggesting this may be a common entry point into 'co-offending' (Fraser and Hobbs, 2017).

The three organisational structures I identified-Sole traders, partnerships, and criminal groups-have also been identified in other illegal markets (see section 3.2.2). Therefore, the ISD market provides another example of how a broad variety of actors are involved in the supply of illegal products and services in the UK, beyond Organised crime group (OCGs). Specifically, the ISD market provides another example of how illegal retail markets in the UK are not dominated by hierarchically structured crime groups with a boss controlling its employees.

6.3 Dimension three: motivations

The third dimension of variation involved suppliers' differing motivations. I identified three types here: suppliers who were only motivated by profit, suppliers who were primarily profit-motivated but had a secondary altruistic motivation, and non-profit suppliers with entirely altruistic motivations who did not accept payment. In this context, altruistic motivation refers to suppliers that offered products or services to help their friends gain free access to illegal streaming channels. The following section provides examples of each. Traders who were solely money-orientated were willing to take on more risks (e.g., sell to strangers) than money-orientated traders who also had altruistic motivations. The latter limited their customer base by only selling to trusted individuals to minimise risk. The solely altruistic suppliers avoided risk by only offering their services to trusted individuals.

6.3.1 Making money (rewards)

I asked PAB traders why they started trading 'dodgy boxes' and those providing IMS why they offered their services.

Ralph: *'I needed some money; it was a way to make money'*.

Stan: *'To make money'*.

James: *'Easy money, I give the people what they want!'*

Lee: *'Easy money and I knew lots of people wanted Kodi and that to watch the footy'.*

Oliver: *'To make some pocket money and everyone wanted one'.*

Most of my respondents identified making money as their main reason for entering the PAB or IMS trade. Most reported they knew they could make money because they were responding to consumer demand.

6.3.2 Limits to making money (risks)

As discussed in section 3.4.1, why criminals enter an illegal market as suppliers primarily relates to profit and can be understood best through a rational actor framework. This is evidenced by traders who sold in closed markets. All my traders who sold in open markets only identified making money as their reason for entering the market. In contrast, traders who operated within closed markets also wanted to make money, but other factors (e.g., risk) came into play to limit their profit-seeking. Marcus: *'I started selling the beginning of 2015, I did it for the money and cause well at the time I had never heard of anyone getting done [prosecuted] for it [selling PABs]'.*

When Marcus started trading, he perceived the trade of PABs to be a low-risk criminal activity. His perception was reasonable because, as mentioned in section 2.2.1, there had been no prosecutions involving PAB sellers until December 2016. He also felt that he was unlikely to be caught selling ISDs because he sold pirated DVDs for several years without detection (see section 6.4.2.1). This reasoning suggested that Marcus was a rational actor who made a cost-benefit analysis and concluded the benefits (i.e., making money) outweighed the risks (i.e., getting caught and being prosecuted) that trading ISDs posed. Similarly, James also entered the ISD market because he felt he would not get caught as he also sold pirated DVDs for years without detection. And even if he was caught, he was not concerned about going to prison (see section 7.1).

Gareth can also be understood from a rational actor perspective:

'I am in it for the money. When I started trading [in December 2015] there was not many risks involved. No one had been sent to prison or given a fine or anything. I knew that if I was caught, they would do something, but

they wouldn't sent me to prison like they do to drug dealers, not for selling android boxes'.

Gareth entered the PAB trade at a time when he perceived it to be a low-risk activity. He knew that the trade of ISDs has always been illegal and explained that if he was caught, he would be prosecuted (see section 7.1). But he commented that when he started trading, he was unsure what penalty he would receive because there were no prosecutions of ISD traders reported in the newspapers.

Lee and Allan can also be understood from a rational actor perspective. They entered the PFS market in the winter of 2016 because (as they reported) there was a low risk of arrest or prosecution. Interestingly, when they started trading, they told me that they thought the law surrounding the trade of ISDs was unclear (see section 7.1), because they had not heard of anyone being arrested or prosecuted for selling PABs and the media had portrayed the trade as a legal grey area. Their former perception did not reflect reality as traders had been arrested but their latter perception was accurate (see section 2.2.6).

Another reason Lee and Allan reported that they entered the PFS trade was because it was not a violent market, as there was no competition from violent criminals.

Fieldnotes: On one occasion at Joe's Tavern, Lee and Allan explained that the ISD market 'was safe' while illegal drugs markets were not. They explained that known local criminals capable of violence had previously been involved in the illegal drugs trade and some of them had been arrested and received custodial sentences. For several years before and during fieldwork I read the local newspapers in Northeast England and dozens of times they confirmed this. Newspapers stated every time one 'king pin' was sentenced another took his place and the cycle of crime continues.

It was always male drug dealers, suggesting the illegal drugs trade in the towns of study are male-dominated. It is not surprising that the ISD market and the (local) drugs market are male-dominated because drugs markets, illegal markets,

and crime in general tend to be male-dominated (everywhere) (Ancrum and Treadwell, 2016; Fraser and Hobbs, 2017). I would consider Allan to be one of the toughest men I have ever met. His friends describe him as a man not to be 'messed with' because he has a reputation for fighting. His friends stated that if Allan was ever in trouble, they would help him but that '[Allan] can handle himself'. When Allan spoke about these criminals, he looked scared. I got the impression that Lee and Allan were terrified of these local criminals. I did not probe this topic further because if he was scared to talk about them then I was scared to write about them! My market participants strongly advised me that as a researcher I should not go into too much detail and to be very careful about how I presented information about the local violent criminals in Springfield. Similarly, another factor that contributed to Marcus and James entering the PAB market was that they experienced a lack of competition from anyone, not just violent criminals.

6.3.2.1 Profit

Understanding how much money people can and do (or cannot and do not) make is important for understanding motivations, and to underpin some of my reflections on why people carry out their trade in different ways. PAB traders operating in open and closed markets charged broadly similar prices: the former were more likely to report a price range, with the latter more likely to cite a fixed price. The overall range of prices in closed markets is larger than for open markets, traders operating in closed markets can be cheaper and more expensive. PAB traders operating in open markets charged between £45 and £60 whereas those selling in closed markets charged different prices - James charged £80, Marcus £60 and Gareth £45. Traders selling 4K PABs charged £70. Service providers operating in open markets charged £10 per device, whereas those operating in closed markets charged £10 for modifying several devices. My service providers made 100% profits as all they had to do was install illegal modifications, on a device their customer already owned, which did not cost them anything. All they needed was an internet connection, which they already had.

Most traders were unwilling to provide their profit levels or state how much they purchased each device for. But Stan was more forthcoming, when I asked him how much he charged for PABs he said:

'It depends, standard ones I sold them for 45 to 60 quid. My mates get a discount. If it costs me more to buy them, I charge more to sell them. Sometimes I bought them for 25 quid each in bulk, other times 30 quid'.

This demonstrates that he made between £20 and £30 per device. When I consulted my North East Trading Standards (NETS) participant about how much traders were purchasing PABs for resale, they could only provide estimates. They stated that price depended on the quantity traders bought (i.e., if they purchased in bulk, they received a discount), who they purchased them from as wholesalers charged different prices, and what the cost was to manufacture an android box at that time. Traders explained that when boxes came out, they were expensive to purchase but as the price of legal android boxes decreased, as consumer demand increased, the price they were able to get them for also decreased. These are the same explanations that the PABs traders I spoke to provided. At the time of their investigations into ISD traders (2014-2018) NETS found that most traders purchased from Chinese selling sites, such as Alibaba, which cost £5 per device when bought in bulk. But as far as I know, only one of the traders in my sample (Anthony) purchased from Alibaba therefore my traders' profit margins remain unknown. But if Anthony did purchase for £5 per device and sold for £45, he would have made £40 per device minus the amount he paid his associates/employees.

Although my CMTs reported that they sold to make money they also reported that profit margins were so low that they could only be used as a supplementary source of income (e.g., holidays abroad or extra spending money), alluding to the limited profits available when supplying ISDs.

As far as I know most traders, apart from Ralph and Anthony, were unable to make substantial profits from selling ISDs or IMS and they entered the market to make a bit of extra cash, but they were not overly driven by a desire to make lots of money. Some traders were happy to stick with 'pocket money' levels of profit but there were other traders that put in extra effort to make more profit by selling in open markets. OMTs operated within multiple locations (i.e., pubs and clubs) and some operated within multiple illegal markets (see section 5.3.3) to improve their overall profit-making opportunities. Ralph and Anthony are examples of

when traders, over the years, operated on a large enough scale to make quite a lot of profit.

6.3.2.2 Limitations to profit

Three interrelated factors limited the amount of money traders could make from selling ISDs or IMS: the cost of purchasing boxes for resale, the lack of repeat custom, and due to having a small customer base. The first reason only applied to ISD traders.

ISD traders had a lack of repeat custom. James claimed that once a customer had purchased an ISD they would be 'set for life for the footy and new movies', suggesting that purchasing an ISD was a one-off event. As the ISD trade involved a permanent technological product as opposed to something to be consumed (e.g., illegal drugs or tobacco) all my money-driven traders encountered the same problem, regardless of what they sold or whom they sold to: once a customer had purchased an ISD or IMS, they did not need to purchase another one.

However, I identified three exceptions to the rule that once someone purchased an ISD they did not need to purchase another one. Firstly, some of my ISD users said they purchased several ISDs for their household: one for themselves for the football and one for each of their children's bedrooms. Secondly, consumers reported that ISDs broke, and they needed to buy replacements. This benefited some PAB traders, Gareth stayed in business because other traders' PABs kept breaking. Thirdly, consumers said they wanted the best quality streaming device on the market; therefore, some had purchased several ISDs since the standard PAB market emerged.

The type of customer the trader sold to also created an issue in building their customer base. Traders who were primarily money-orientated but had a secondary altruistic motivation had a limited customer base to target as they only sold to trusted individuals which limited the amount of money they could make. Some traders reported that the main limitation here was that a lot of people they spoke to already had an ISD. Allan (Lee's associate) reported this in relation to expanding Lee's business of illegally modifying firesticks. It would be expected that once these traders had sold PABs or offered IMS to everyone within their

social networks, they would have run out of customers, resulting in them going out of business. However, unexpectedly, the traders I spoke to did not cease trading ISDs for lack of customers - they left the trade for other reasons (see section 8.2). In contrast, solely money-oriented traders had a much larger customer base to target by selling to strangers. None of them reported that they ceased trading due to running out of customers.

It was not only the type of customer the trader sold to but also where they sold that created an issue in building their customer base. All my traders were geographically bounded, selling at offline markets, which limited the number of customers to whom they could advertise their products or services. Online traders can advertise to national and international markets whereas offline traders are restricted to a geographical locale - for my traders this was the town they operated in.

There are similarities and differences between the ISD trade and other illegal markets when building a customer base. There was no requirement for repeat customers within the ISD trade, with some exceptions, which made it different from illegal markets where the goods are consumed (e.g., drugs and tobacco trades). In those markets, traders receive regular repeat custom as customers need to purchase more to replace their consumed goods (Bakken et al., 2018). The ISD trade is similar to markets where the customer only needs to purchase the product once such as counterfeit markets for electrical goods (e.g., smartphones), the stolen goods market, or the ticket touts markets when a ticket is purchased for one specific event.

6.3.2.3 Repair service

Some ISD traders offered a repair service. Interestingly, Gareth was the only PAB trader to offer a repair service. Gareth told his customers that if they experienced any problems with their PAB they could contact him to fix it by calling his mobile. Mr. Parker described this as a 'customer service line'. When Gareth's customers contacted him, he asked them to describe the problem with their PAB and offered step-by-step instructions on how to fix it. If customers could not follow his instructions, he met with them to collect their devices, repair them, and then return them. He reported he never encountered a problem he could not fix as

everything he needed to know was readily available on the online technology forums he visited.

Gareth explained that he offered a repair service because when he started trading, he knew there was a demand for broken PABs to be repaired. Based on his experiences and those of others on the online forums that he visited he knew that PABs often broke. Unsurprisingly, Gareth reported that (pirated) streaming channels often stopped working because they had been shut down by law enforcement. And Kodi player gets updated annually therefore, traders needed to regularly update the Kodi app and pirated add-ons on their users' devices otherwise devices would not function.

Based on what his customers told him, he knew that when a customer's PAB broke the trader they had bought it from (e.g., Marcus or James) would tell them to buy another one rather than repair it. To attract customers to purchase a PAB from him, rather than competitors, Gareth did not charge for this repair service it was included in the customer's PAB price. Gareth also repaired PABs that people had bought elsewhere, charging £10 per device.

I asked other PAB traders whether they offered a repair service to identify how widespread this was.

Stan: *'No I would just exchange them if they were faulty'.*

Ralph: *'In my game, you don't offer a repair service. They're a good product - if it fails, I will test it. If it is not working, I will exchange it or I will give them their money back. Most of the time I just give them a new box or their money back. It hasn't happened often. It is only on rare occasions something goes wrong with the box coz it's a good quality box'.*

These traders are similar to legitimate retailers because when you buy electronic goods from legitimate retailers, they offer a warranty if the product breaks. As discussed in section 6.3.2.3, Marcus and James explained that they did not offer a repair service because if their customer's PAB broke, they wanted them to buy another one.

My PAB traders provided very different reasons for not offering a repair service, providing insight into what makes a good ISD trader. Clearly, Stan and

Ralph aimed to provide good customer service as they were willing to offer a replacement PAB if theirs were faulty. Marcus reported (section 6.1) that he did not offer a repair service because he wanted to make more money by selling customers a replacement box. Yet as, he provided poor customer service, his dissatisfied customers purchased replacement PABs from alternative traders. He also potentially lost more customers as his dissatisfied customers reported they did not recommend Marcus to their friends.

Some traders that provided IMS also offered a repair service to their customers if their devices stopped working. This involved the customer giving the trader their ISD to be repaired. These traders stated that when their customer's ISDs did not work it was mostly because the pirated add-on needed to be updated.

Fieldnote summary: On one occasion at Joe's Tavern, I observed Lee say to Mr. Parker 'If you have any bother, no worries come [to] see me and I'll sort it'. I also observed Allan say a similar phrase to Mr. Parker. 'If there's any bother just give is a bell, and [Lee] will sort it' (Allan). When Mr. Parker did encounter a problem with his firestick, I observed him ask Allan to contact Lee to fix his firestick.

The main difference between Gareth's and my other traders' repair services was that Gareth's was more sophisticated. Gareth only collected his customer's PAB as a last resort if it was unable to be fixed via phone call whereas for my other traders, part of their repair service was collecting their customers' devices.

6.3.3 Non-money motivation: altruism

Some traders who operated within closed markets were primarily motivated by making money but had a secondary altruistic motivation. Some suppliers were not motivated by making money - but were in it to 'help out their friends'. With no profit motivation, there is less incentive to take risk and a greater need to avoid it. Explanations for non-financial motivations are exemplified by Michael and Paddy's wife:

Michael: 'I do it to help out my friends. I don't charge coz I'm not in it for the money'.

Paddy's wife: 'My hubby does it to share the joy. Some share a joint, he gives people free movies it's all good'.

These suppliers had altruistic motivations as they wanted to 'help [their] friends' or 'share the joy'. Social supply dealers of cannabis have also used this language to describe their motivations for involvement in the trade (Parker, 2000; Potter, 2009; Taylor and Potter, 2013). Hough et al., (2003:36) define social supply dealing as a 'non-commercial (or non-profitmaking) distribution between non-strangers'. Potter (2009:60-64) expanded on this by developing a two-criteria definition of the term, dealers that supplied to 'non-strangers' and were ideologically motivated to help others. As my suppliers that offered their services for free fit both criteria, they operated in a way that was similar to social supply dealers in drug markets. These suppliers only offered their services to people they knew personally (i.e., 'non-strangers') and were ideologically motivated to help others access illegal streaming services. Social supply dealers are a special case of closed-market trading, and social supply is common within offline retail drugs markets, particularly for cannabis (Coomber and Turnbull, 2007; Decorte, 2010; Hough et al., 2003; Potter, 2009; Pearson, 2007; Werse, 2008). Altruism was these ISD suppliers' only non-financial motivation; they did not mention social status (e.g., popularity) which has been identified with some social supply dealers (Cullen, 2010).

6.4 Dimension four: who traders sold to

The fourth dimension was based on whether suppliers operated within open, closed, or social network markets. I aimed to understand how and where transactions took place, about relationships between buyers and suppliers, and about how suppliers selected and developed their customer base.

May and Hough's (2004) typology of retail drugs markets (section 3.3.1) offered a useful framework based on who traders sold to. I identified three distinct types of ISD retail market suppliers by applying their typology. Similar to May and Hough's drug dealers, Open Market Traders (OMTs) sold to anyone, and Closed Market Traders (CMTs) only sold to people they already knew or people that have been vouched for by people they already knew. Social Network Suppliers (SNSs) only offered their services to people they knew personally, operating in a way

similar to 'social supply' in drug markets (Coomber and Moyle 2013; Hobbs, 2013; Pearson, 2007; Potter, 2009).

Sandberg's (2012) typology of distribution markets offered a useful framework based on where trading happens. I identified two types of trading locations: private (e.g., private homes) and semi-private (e.g., pubs and social clubs). As expected, as it has been identified within other illegal markets, the place where transactions occurred closely related to whom traders sold to (May and Hough, 2004). My CMTs and SNSs only traded in private places, including private homes and workplaces, whereas my OMTs sold in semi-private places including pubs and clubs. A key difference between OMTs, CMTs and SNSs is their motivations. The following discussion explains how each type of supplier operated and provides detailed case studies drawn from my key participants as exemplars. (See sections 7.5 and 7.6 for discussions of why suppliers chose to operate as OMTs, CMTs or SNSs).

6.4.1 Open market traders

I identified ten OMTs in my study. Six of these only sold PABs and two only offered IMS for android boxes. Both Wayne and Bruce initially sold PABs then shifted to selling PFS and offering IMS for firesticks. They both operated in Springfield. Six OMTs that only sold PABs operated within Beachland and one trader (Tom) operated within Fisherland. My two OMTs that only sold IMS for android boxes both operated in Beachland.

My contacts that frequented pubs and social clubs within Springfield or Beachland told me that, apart from Walter and Stan, my OMTs sold in different pubs and clubs in the towns they operated in. Similarly, Tom and his customers told me Tom traded in multiple pubs and clubs within Fisherland. Stan and Walter were pub landlords and only sold to customers within their pubs. Their reasons for this are explored in section 7.4.

Patrons within Springfield and Beachland told me that the OMTs of illegal goods that they know only traded within pubs or social clubs near where they lived, as exemplified by Peter. Peter was a regular at Stan's Place, and sometimes visited other pubs in Beachland. He explained that the traders of counterfeit goods, stolen goods, and drugs that traded within these other pubs

lived within walking distance of them. Based on this local knowledge, he did not believe that the ISD traders in Beachland would have been trading within a different town such as Springfield or vice versa. The experiences of my traders supported this view. Ralph, for example, said 'I sell in my hometown' when I asked about where he traded, walking rather than driving to the pubs in Beachland where he advertised his PABs. This finding mirrors studies of retail level drugs markets that have shown that many dealers only trade in their comfort zone (e.g., near where they live, work, or socialise) (Hobbs, 1995; May and Hough, 2004; Venkatesh, 2008; Williams, 1989).

Having described *where* trading happens, I now move on to explaining how trading occurs. As some OMTs sold PABs and others sold IMS, I provide examples of both types.

6.4.1.1 Ralph's enterprise: PAB trader

As I developed a thorough understanding of how transactions happened within Ralph's illicit enterprise, his operation is provided as an example of how a PAB trader operated within the pubs and clubs where he sold. As with any illegal market, the first stage in retail distribution involved purchasing the product, in bulk, from higher up the supply chain. Ralph purchased pre-(illegally) modified android boxes from an illicit wholesaler - and he paid in cash. I asked Ralph how many android boxes he bought from his supplier at a time.

Ralph: 'Varies on how many I sell. If I sell a lot, then I buy more. I used to buy about 50-ish [per month]. But back in the day when the boxes came out, I bought about 70 but when the sales died down, I bought less'.

The number of boxes Ralph purchased depended on consumer demand. I also asked where he stored his android boxes. He said: 'In a garage that I rent'. After purchasing PABs, the next stage was to advertise and sell them. I asked Ralph about how transactions took place including where he sold and who to.

'Anybody who had money for them, selling to people you know is less risky. Pubs and [social] clubs and to whoever wanted to buy them! Because that's where the demand was. They come to me to buy. That's how I sold them, word-of-mouth'.

Ralph told me about how he advertised to his potential customers:

'Word-of-mouth is how things get sold or asking around or offering them to people. You can't walk around the pub saying does anyone want one coz they're strangers. You don't know who they are, they could be pigs [cops]...Word-of-mouth is the best way to get business done.'

Ralph recruited via word-of-mouth, which is a common method amongst my traders.

Fieldnotes: Ralph sold pre-illegally modified boxes, so he could sell the product immediately to the customer if he had stocks with him. His customers paid in cash and received their PAB in a bag underneath the pub or club table.

Ralph: 'I come in with them in a bag and I slide it over if I fancy being discrete. Some days I can't be arsed and just hand it over. Other times I just sit there [in the pub] and the customer comes over and sits next to me and I hand it over.'

Lisa: 'What kind of bag?'

Ralph responded: 'Just a big carrier bag with each box in a separate bag in me big bag. How many is in the bag depends on how many I sell.'

Ralph told me how his customers ordered an android box: 'If I ain't got any with me I say I will be here Tuesday or another day whatever, at 3pm or whatever time, and they pay then, and I pass it to them then.'

6.4.1.2 Taylor's enterprise: selling IMS

Taylor sold IMS for android boxes. He wandered around pubs asking clientele who were strangers to him if they wanted 'Kodi and Exodus' installed on their android boxes. He told them to buy one from a shop if they did not have one. As he sold to strangers, he was an OMT. If a customer wanted to purchase an IMS, Taylor met them at the pub on a different day to collect their box. Then Taylor returned it in a carrier bag on a different day. The handover was discrete, with Taylor handing over the PAB underneath the table, out of sight from prying eyes.

Arrow operated in a similar way to Taylor, offering IMS for android boxes, but these two traders did not work together. Similar to Ralph, both Taylor and Arrow were OMTs, both selling at pubs and clubs. But they were also different from Ralph in how they operated because they sold IMS rather than ISDs. The main difference in the way they operated was that those selling ISDs could conduct transactions immediately, if they had products with them. But, traders offering IMS needed to advertise their services, arrange a time to collect the device from the customer, illegally modify it, and then meet the customer again to return the modified device. Taylor and Arrow were different to Ralph in how they advertised as they wandered around pubs asking strangers if they wanted to buy IMS whereas Ralph pretended he was advertising PABs on behalf of another trader (see section 7.5). Similar to Ralph, both Taylor and Arrow handed over the ISD to the customer in a carrier bag underneath the table, suggesting this is a common approach.

6.4.1.3 Wayne and Bruce's schemes: PAB traders in Joe's Tavern

Wayne and Bruce were also OMTs, selling PABs to strangers. Their advertisement strategy differed from Ralph's as they asked everyone at pubs if they wanted to buy their PABs, PFS or IMS, whereas Ralph pretended he was advertising on behalf of someone else.

Fieldnotes summary: When they started selling PABs, from 2016 to 2017, I saw Wayne and Bruce walking around Joe's Tavern approaching everyone, at each table, asking if they wanted to buy a 'dodgy box' (PAB). Then, from 2017 to 2020, they changed to asking if anyone wanted a 'dodgy stick' (PFS) or 'Kodi and that' added to their Amazon Firestick.

By selling to anyone, these traders firmly fit the OMTs category. Wayne and Bruce did not work together but advertised in the same way with similar sales pitches, suggesting that their advertisement strategy may have been common.

Fieldnote summary: First, they made small talk, greeting people they knew. Then they made a mini sales pitch which some of Joe's clientele described as being 'very corny'. Their opening line was either:

'Do you want free Sky Sports' or 'Do you like movies?' Then they waited for potential customers to say yes: 'do you want to watch the latest movies without going to the pictures? Well, I have a deal for you'.

Other times they asked potential customers if they liked watching [their home football team] and whether they thought Sky Sports or BT Sports was expensive. Potential customers were those who agreed that it was expensive; in response, Wayne and Bruce would say 'I have a deal for you' or 'why pay Sky £100 a month when you can pay me £60 and have Sky Sports for life!'. To female clientele, they added patter such as 'And for such a pretty face like you I can do you a deal', or 'a smile from you pretty lady and I will knock a fiver off.'

On several occasions when I was at Joe's I observed these traders approaching people who had already told them that they did not want to buy an ISD because they already had one. Either the traders were very persistent, or they had forgotten that they had previously spoken to that potential customer! I never saw anyone buy ISDs or IMSs from either trader, but I was not at the pub every day. They may have sold more when I was not around, but if their success rates were as low as I observed it raises the question of how – or why - they stayed in business. My patrons, who frequented the other pubs they traded, reported they saw some of their transactions. They must have been making some money because they kept returning to Joe's and other pubs to sell.

Some patrons at Joe's told me that when these traders did find willing customers, they had the product ready to sell immediately, handing it to the customer under the table at the pub. As they were friends, Wayne and Bruce often drank at the pub, either together or separately, when they were advertising their ISDs to customers allowing patrons to approach them if they wanted to buy one.

Most of my OMTs offering PABs, including Zack, Porn Star and Tom, advertised and sold PABs in similar ways to Wayne and Bruce. They wandered around pubs asking strangers if they wanted to buy a 'fully loaded android box' or a 'dodgy box with Kodi and Exodus on'. They always had the product ready to sell and handed

it over in a carrier bag. Interestingly, traders that used to sell pirated DVDs in pubs and clubs in the towns of study ('in the early 2000s', Allan) also operated in the same way as my OMTs, approaching strangers and asking them if they wanted to buy.

In addition to advertising their PABs to pub clientele, Zack and Tom also advertised to their drug-using customers. They were both drug dealers before entering the PAB market and already had an existing customer base to target. Surprisingly, there was a lack of overlap between ISD and drug suppliers: Zack and Tom were the only drug dealers in my study. This raised the question of why there were not more ISD traders involved in selling multiple types of illegal goods (see section 5.3.3 for the reasons). Some of my traders reported avoiding trading drugs because they perceived the market as being too risky (i.e., likely to be prosecuted if caught) and violent (see section 6.3.2).

6.4.1.4 Stan's scheme: pub landlord as PAB trader

Stan and Walter were both landlords who sold PABs within their pubs. I have limited knowledge of how Walter ran his business, but I gained detailed knowledge of how Stan ran his. As Stan only sold PABs in his pub while my other OMTs traded within other people's pubs and clubs, the way that Stan's transactions occurred was slightly different.

Fieldnote summary: Stan purchased PABs from an illicit wholesaler, then stored them in a garage, then advertised and sold them. Stan said his target audience was his 'punters'. As some of these were regulars and others were not, he sold both to strangers and people he knew. His customer mix puts him firmly in the OMT category. Stan identified potential customers through 'word-of-mouth, they seek and find me'. I asked Stan what he did when a potential customer approached him:

'I would either tell them a time to come back and I would have it ready or if it wasn't too busy, I would just go and get it from the garage. [Then] I would take them into the other room and hand it over in the room behind the bar. The customer leaves, and I am richer'.

Stan did not have PABs on his premises ready to be sold, and the transaction took place in a private room. His customers paid in cash. Based on my observations of Stan's Place, he was generally very discrete in the way he conducted transactions. On several occasions, I saw customers going to the door behind Stan's bar and sometimes coming out with a carrier bag. As Jessica (a regular at Stan's) said: 'basically you would only know he was selling if he wanted you to know'.

One difference between Stan and my other OMTs of PABs was that Stan never had PABs with him ready to sell whereas Ralph sometimes did, and my other OMTs always did. Another difference was where payment was received and where the ISD was handed over to the customer, for Stan this occurred in a room behind the bar, which is a private location, while for my other OMTs this occurred underneath the table, a semi-public location.

6.4.1.5 Comparing my pubs

In chapter five, I began comparing my two pubs based on their size, atmosphere, and patron demographics. I now expand on this by considering why open market trading occurred at Joe's Tavern but not in Stan's Place. Interestingly, I identified two main differences between these pubs. Firstly, Stan sold PABs within his pub while Joe did not. Conversely, illegal traders operated within Joe's Tavern, which was primarily populated by locals, while illegal traders did not operate within Stan's Place, which was populated by a mixture of students and locals.

I saw that Wayne and Bruce were the only ISD traders operating in Joe's Tavern, and regular customers there backed up my observation. Based on my observations and conversations with Joe and his clientele I identified three interrelated factors that explain why OMTs operated at Joe's. First, Joe did not trade within his pub, and as will be shown, he could not ban traders of illegal goods due to a fear of the repercussions. Therefore, OMTs did not face competition from Joe. Secondly, within Joe's and the surrounding neighbourhood, I observed that crime was normal and there was consumer demand for ISDs which created an environment suitable for OMTs to flourish. As mentioned in section 5.1.1, customers at Joe's Tavern and residents of Penny

Lane explained that there was demand for some illegal products from customers there, and the trade of some illegal products were considered socially acceptable. Thirdly, patrons were unlikely to report traders as snitching or otherwise aiding the cops was taboo in the local culture (section 7.7).

Wayne and Bruce were likely comfortable trading at Joe's because patrons were all willing to act as lookouts, providing a warning if potential cops or snitches were present and reducing their risk of getting caught. Patrons acted as lookouts because crime was normal and snitching or otherwise aiding the cops was taboo in the local culture. Interestingly, the role of lookout extended to nearby establishments, further demonstrating a culture of crime-as-normal within the local community: I observed that patrons at Joe's and their friends drinking at other venues within Springfield would inform each other if law enforcement were making unscheduled visits to these venues, or if undercover police activity was suspected. A social club in Springfield was once raided for illegally streaming sports, and those customers notified Joe's patrons about it. However, it was extremely doubtful that lookouts would be required because, according to Joe's customers and Penny Lane inhabitants, police do not visit Joe's Tavern or go on foot patrol in Penny Lane due to fears of being assaulted. Locals explained that this was because the area had a bad reputation for being occupied by violent criminals (see section 6.3.2). In the several years I visited Joe's, I did not see any police visit Joe's or patrol the area, except for one occasion.

Fieldnote summary: One day I was walking to the pub with Peter, and we saw a female police officer walking alone in the rough area of Penny Lane. Peter was in such disbelief, that he stood in shock and stared at the officer until she was no longer in view. It was as if he had seen an alien ship land!

'Whoa have you seen that? It's a woman copper walking round in [Penny Lane]. She clearly doesn't know the area. If she did, she sure as fuck wouldn't be walking round here. Or she has got some fucking balls on her. I can't believe that like, fucking hell!'

His tone of voice and his reaction further demonstrates how rare it was for police to patrol Penny Lane, let alone a lone female officer. He seemed concerned for the officer's safety. When we arrived at Joe's, Peter told

those within his social circle what he saw. They also reacted with disbelief. Allan said: 'I wanna know what's going on me'. Immediately, Allan started texting people in Penny Lane asking them to watch whose house the cop was going to and what crime had been committed.

The officer may have been a police community support officer. Patrons and residents of Penny Lane commented that police mostly only enter this area when they are responding to reports of serious and violent crimes. But the police are wasting their time, regardless of the type of crime, as they are extremely unlikely to get witnesses to talk in the culture of 'snitches get stitches' (see section 7.7). This culture helps explain the lack of police presence in Joe's and the surrounding area. Residents also reported they did not report crimes because the police did not care about them, when they reported being a victim of burglary, members of the police knocked on doors asking if anyone had seen anything (see section 7.7). But police did not recover their stolen goods and said they could not prosecute anyone because there were 'no leads to investigate'. Arguably, the 'stitches culture' led to police having no leads because even if people had witnessed the crime, they would not act as informants due to this culture.

My contacts at Springfield commented that they knew several pubs within Springfield where traders of illegal goods are not allowed to operate because if they did the landlord would 'hoy em out' (Allan). This raises the question of why Joe allowed traders of illegal goods to operate within his pub. The answer relates to the third reason OMTs operated at Joe's. When I asked Joe 'why do you let people sell in your pub' he looked frustrated and explained that he felt he had no choice:

'I turn a blind eye [to these traders] ...there is nothing I can do; I don't want any trouble. I don't dare kick them out. They might be [known local violent criminals] and could come back with a baseball bat and break my legs. No thanks. I need them to make a living; without my legs, I would be on the streets!'

His frustrated tone of voice suggested that Joe felt helpless. He was unwilling – or unable - to ban known OMTs from frequenting his pub because he was concerned in case the trader, or their associates, were known local criminals

capable of 'instrumental violence' (Hornsby and Hobbs, 2007:561). Several patrons at Joe's also told me that Joe permitted the trade of illegal goods within his pub due to fears of possible repercussions from known local criminals. As I took a covert approach to observing Wayne and Bruce trade at Joe's Tavern, I could not ask them why they felt comfortable trading there as opposed to other pubs. Even if I had taken an overt approach with them, I would not have asked this question knowing that they might potentially be violent criminals.

It is impossible to conclude which of these three factors contributed the most to explain why OMTs operated within Joe's Tavern, and they are all inter-related anyway. Firstly, Joe did not trade within his pub and was unable to ban traders of illegal goods due to a fear of the repercussions. Secondly, crime was normal and there was consumer demand for ISDs within Joe's and the surrounding neighbourhood. Thirdly, patrons were unlikely to report traders as they have a culture in which they do not report crime. Routine activity theory (RAT) can be applied to explain why OMTs operated at Joe's. Cohen and Felson (1979:604) postulate three requirements for the commission of most crimes: suitable targets, a motivated offender, and the absence of a capable guardian. There was a suitable target (customers at Joe's), a motivated offender (OMTs) and a lack of guardianship (from the police or Joe). As Joe did not prevent traders from operating within his pub and the police did not patrol pubs in Penny Lane this resulted in a lack of deterrent. As patrons at Joe's wanted illegal goods, this provided an opportunity for illegal markets and traders to thrive because illegal markets can only operate if there is sufficient demand to encourage supply.

This discussion now moves on to describing pub trading within Stan's Place. Interestingly, I observed that Stan was the only trader selling ISDs within his pub. Regulars at Stan's Place also reported that they did not observe anyone else trading there. As traders sell in pubs near Stan's Place, I asked Stan why no one sells in his pub.

Stan: 'By law, people aren't allowed to sell in any pub, and obviously, people can't sell android boxes in my pub because I am selling them, and I can use the excuse people can't sell merchandise in my pub'.

As Stan sold PABs himself, he did not tolerate other people doing so in his pub, stealing his customers. Stan also had a reputation for being able to enforce that. Peter: 'I reckon no radgies [violent or aggressive people] would go to [Stan's Place], so they deffo won't sell out there coz they know if they do [Stan] will fill them in!'. Several patrons at Stan's Place commented that Stan was to be respected because he was 'a hard man', capable of 'instrumental violence' (Hornsby and Hobbs, 2007:561). Local known criminals, who were not regulars at Stan's Place, were not welcome and Stan threatened them with violence. He said this was to create a pleasant atmosphere for his patrons.

Fieldnote summary: One time, Stan walked over to a man sitting in his pub who was wearing a hoody with the hood up and he picked him up by his hood, dragged him along the floor, and threw him out. Stan shouted at the man 'don't come back'. He then explained that he knew this man to be a 'local wrong-in' (troublemaker) and having his hood up was a sign of disrespect. He was adamant that people hide their faces when they are 'high'. After the man was thrown out everyone at the pub laughed because this was normal behaviour. Some people that did not know Stan very well were laughing more nervously, possibly out of fear.

I asked Ralph why he did not trade at Stan's Place. Unsurprisingly, given the story I have just presented, Ralph responded: 'I didn't sell in [Stan's Place] coz I didn't want to step on [Stan's] toes...he is a decent bloke'. My OMTs that traded within Beachland did not sell at Stan's Place – respect for and fear of Stan were clear factors here. At the same time, Stan's quote demonstrates that he did not let other traders operate within his pub because they would have created unwanted competition for him. Stan's patrons told me that he bars known troublemakers, therefore some ISD traders did not trade within his pub because they did not want to be barred. After all, there is a lack of alternative pubs to go to within the vicinity of Stan's Place. Unlike Joe's Tavern, Stan's Place was not frequented by known local violent criminals, but this was likely because of Stan's reputation for violence. Routine activities theory can be applied here to explain why traders did not operate at Stan's, with Stan providing the 'capable guardianship' absent at Joe's. In their capacity as suppliers of ISSs to their patrons, neither of my landlords employed door security (cf., Winlow *et al.*, 2001).

Stan clearly did not need to employ a bouncer as he acted as one himself, physically removing undesirable customers from his establishment. Joe's reluctance to remove unwanted customers suggests that maybe he did need a bouncer, but he could not afford one.

When I compared my pubs, I found that factors affecting whether patrons will illegally trade within a pub include whether the landlord is trading within his pub, whether the landlord has a reputation for violence, and the local cultural context of the area where the pub is located. Violence is a key factor within both pubs. Joe wanted to trade ISDs, but he felt like he could not because he was scared to compete with local criminals for customers. He knew they could steal his stock and threaten him to stop trading because he did not have a reputation for violence. He allowed others to trade within his pub because, as he does not have a reputation for violence, he was scared to refuse them entry in case they were affiliated with local criminals that may threaten him. Joe told me he would happily trade if there were no local criminals in his area. Stan sold ISDs within his pub, even though he knew he was competing with local criminals, and he was able to stop others from trading within his pub as he was not scared of them due to his violent reputation. There was a local culture in which crime was normal within both pubs and a stitches culture which enabled traders to operate without fear of detection from law enforcement.

6.4.2 Closed market traders

In my study, I identified seven CMTs three who traded PABs, one who ran a PAB scheme but did not sell directly himself (Anthony), and two who offered IMS for firesticks. Six CMTs operated in Springfield. Mackenzie differed from the others as he offered IMS for droid sticks and operated within a different town (Sandland). The following describes whom my CMTs sold to, how they advertised and built their customer bases, and how and where transactions took place. As mentioned in section 6.4.1.2, there are some important differences between running a scheme selling PABs and running one selling IMS, therefore an example of each is provided. This primarily relates to the risk each poses. Traders offering IMS had more points of contact with their customers, in which they could get caught, than traders selling PABs. Albeit, as CMTs did not carry PABs with

them ready to sell the difference between CMTs was minimal as trading IMS only required one more contact with customers than trading PABs.

6.4.2.1 Marcus's enterprise: PAB trader

Marcus's approach to selling PABs was similar to when he previously ran a successful enterprise selling pirated DVDs (Potter, 2015). He advertised and sold to people he knew (e.g., friends, family, work colleagues) or people introduced to him via trusted intermediaries. He operated within a closed market as he did not sell to strangers. Customers placed their orders with Marcus then he created the pirated DVD. Then, the customer paid for and collected their DVD from Marcus or occasionally from an intermediary at their workplace. As technology changed and the DVD market was disappearing, Marcus moved into selling PABs, but who he sold to and how he delivered and collected payment remained the same as his approach for DVDs.

As with any illegal market, the first stage in retail distribution involved purchasing the product, in bulk, from higher up the supply chain. I asked Marcus where he purchased his android boxes from and where he stored them: 'I drove to [well-known offline retailer] and bought about a dozen android boxes...I paid in cash...coz I didn't want to leave a paper trail. Drove home and put them in my garage'.

After purchasing boxes for resale, the next stage is advertising to customers. Marcus advertised and then sold to trusted individuals. Marcus explained that some of his existing customers often bought PABs from him on behalf of their friends for several reasons. Sometimes it was to protect the trader's identity and to minimise the number of people who knew about Marcus's involvement in this illegal activity. Other times it was out of convenience because Marcus was simply too busy to meet the new customer in person. I expected that some of these people would have been wanting to make a bit of profit by buying from Marcus and selling on to their friends, but based on those I spoke to I did not find any evidence of this happening: in Ned's words, 'I was just passing it on'. They explained they were doing it as a favour to both parties.

They had altruistic motivations as they commented that they wanted to help their friends watch sports for free. Marcus clearly fit as a CMT, only selling to trusted individuals as a risk management strategy (RMS) (see section 7.6).

Fieldnote summary: As Marcus had developed a large customer base from selling pirated DVDs these individuals became his target audience to sell his PABs to. Marcus did not worry about expanding his customer base proactively because he knew enough people to rely on word-of-mouth to recruit more customers. Marcus explained that as part of his sales pitch he told existing customers that he was no longer selling 'dodgy DVDs', instead he was selling 'dodgy boxes'. So, if the customer wanted to watch the latest movies and TV shows, at a significantly lower price than legitimate retailers, then they would have to buy a PAB. He emphasised that PABs were better than pirated DVDs because they offered live sports channels.

In a very frustrated tone, Murphy (one of Marcus's customers) confirmed this. Murphy explained that initially he was frustrated that Marcus was refusing to sell him pirated DVDs because he felt forced to shift the way he accessed pirated content. But he was happy when he learnt that he could get Sky Sports for free on his PAB which he could not get on his pirated DVDs. It would be expected that PAB customers are not repeat customers, you buy a PAB, it lasts, you have access to everything (unlike DVDs where you buy one and watch it and then want to buy another one). But this was not the case as they often completely broke or needed to be repaired [see section 6.3.2.3].

After advertising the box, the next stage was to sell it. Marcus explained that when customers wanted to buy a PAB from him, they placed their order at a pub or the mutual workplace. But, the PAB was not handed over there because he did not carry PABs with him ready to sell. Interestingly, as an RMS, he not only waited until customers had placed their orders before he illegally modified the device, he also waited until the last minute (e.g., the night before) before passing it to the customer. Then the customer paid for and collected their device from Marcus or

occasionally from an intermediary at their workplace. Marcus worked at a different department to some of his customers. Consequently, if a mutual friend passed both departments, they would drop the PAB off to the customer and collect payment, then return the payment to Marcus. They were not rewarded for this, except Marcus saying, 'thank you'!

Through informal conversations with several of Marcus's customers, I found that when Marcus transported the PAB to his customer, he often only carried one PAB at a time in a carrier bag. I asked Marcus whether he carried any spare PABs as I wanted to understand his level of consumer demand. I expected he would carry several as they are small and lightweight. Instead, he responded: 'I didn't carry any spare boxes with me on the off chance someone would want to buy one... selling to strangers is risky'. Marcus also reiterated that he only advertised and sold PABs to trusted individuals. And his potential customers knew that if they wanted one, they had to place their order when they saw him.

Another CMT of PABs (James) operated in a similar way as Marcus. James also previously sold pirated DVDs, suggesting this may be a common entry point to selling ISDs. Gareth (discussed in section 6.2) operated in a similar way as Marcus to advertise PABs. He also illegally modified devices the night before the transaction. The main difference is where customers placed an order and where transactions took place. For Marcus customers placed an order at a pub or at the mutual workplace whereas for Gareth it was at a pub or by knocking on Gareth's door. For Marcus the transaction occurred at the mutual workplace whereas for Gareth it occurred in his house.

6.4.2.2 Lee and Allan's scheme: selling IMS

The previous case study involved a trader selling PABs. The following involves Lee, a CMT selling IMS for firesticks, and his associate Allan who worked with him to drum up custom.

Fieldnote summary: Lee and Allan advertised to friends and friends of friends. When customers wanted to purchase Lee's services, Lee and Allan told them to buy a firestick from a shop and then come back with it for modification. I observed that Lee's customers would place orders in

social situations (e.g., in the pub, at parties), but that actual transactions would occur later in private places (the customer's house or mutual workplace). This was because after a customer placed an order, Lee or Allan would meet them to collect their firestick for Lee to take it home. Then Lee would illegally modify the device at the last minute (e.g., the night before) before returning it to the customer. Lee concealed the device in his coat pocket when he dropped it off and received payment before handing over the PFS to the customer. Luckily for me, on several occasions I was at different customers' houses when Lee visited to drop off and set up their PFS and show them how to use it. Setting up the device involved Lee plugging the firestick into the TV's HDMI port and entering the customer's WIFI password into the device. Then explaining to them what pirated apps had been installed on the device and what video content these apps provided.

On one occasion, it was very entertaining because I observed Lee attempt to discretely whisper to a male customer, in front of the customer's wife, that pirated porn apps could easily be installed. When the customer's wife left the room Lee explained that he does not install porn apps to avoid his customers 'getting into trouble off the Mrs.' and because he sells to men that have young children.

Allan worked with Lee to recruit potential customers, although he neither requested nor was paid for this. He was not motivated by money. Allan explained that he did this to 'help out family' because Allan was Lee's father-in-law. And 'I wanted to make my friends happy'. Family is really important within working class communities. Allan explained that as Lee was quiet, he relied on him to build his customer base. Allan previously supplied pirated DVDs, therefore already had an existing customer base to target (Potter, 2015). Regulars at Joe's Tavern commented that Allan was a very popular and well-respected man in the community where he socialised (the pubs and clubs he frequented), therefore he was able to quickly reach a lot of people solely by word-of-mouth. This was essential to expand Lee's clientele.

On several occasions, I observed Allan recommending Lee's IMS at house parties and at Joe's Tavern to people within his social networks. Consequently, Allan expanded Lee's customer base through word-of-mouth. One example of this was when I observed Mr. Parker complaining to Allan that his PAB had broken. Allan recommended Mr. Parker buy a firestick, saying 'get [Lee] to put Kodi and that on'. As Lee and Mr. Parker had only briefly met at social gatherings (house parties), Allan explained that he would vouch for Mr. Parker as being trustworthy. Allan gave Mr. Parker's firestick to Lee to illegally modify. Another example of this was when I witnessed Allan conducting a sales pitch at a house party. One person at the party stated that they had not heard of Kodi, which made Allan very excited. He plugged the party host's PFS into the TV, provided a visual demonstration of how to use Kodi with illegal modifications, and explained the benefits and limitations of using ISDs. At Joe's, I observed some people who mistakenly thought that Allan was illegally modifying firesticks rather than Lee. This was unsurprising because Allan kept advertising Lee's services saying, 'I know a guy that can install Kodi and that on the stick' and people assumed Allan was talking about himself.

My other two CMTs of IMS (Oliver and Mackenzie) operated in a similar way to Lee, but worked alone.

6.4.2.3 Discussion of CMTs

My case studies of Marcus and Lee illustrate that traders described in this section were clearly CMTs based on who they sold to: their social network and to customers that had been 'vouched for' (i.e., referred to them by a trusted mutual acquaintance) and where they sold (private places).

CMTs advertised their PABs or IMS and developed their customer base in the same way: via word-of-mouth. Frequently at Joe's Tavern and house parties, I observed existing customers recommending their trader's product or services to potential customers who did not have an ISD within their social circles. They did this by explaining the benefits of ISDs, (watching content that is unavailable legally in the UK) and then recommending a trader for the potential customer to buy from. Unsurprisingly, this resulted in people within their social networks who

did not already have an ISD purchasing one. This was a very common approach to expanding CMTs' customer bases. These discussions also occurred within some of my ISD customers' workplaces. Several participants told similar stories to Elvis, who informed me that he bought his first PAB after his work colleagues kept talking about them on their lunch breaks.

I wondered whether there was any benefit to those who recommend their trader's products or services to others. After speaking with them, I identified two altruistic reasons to explain why my closed market customers (CMCs: those who purchased from closed market traders) recommended their trader's PAB or IMS: to help their trader expand their customer base because the trader was their friend, and to help their friends. 'I helped out my mates by telling them how to get movies on at the pics without paying, by buying a stick with Kodi' (Murphy, PAB user).

Surprisingly, in Joe's Tavern I observed that some of my participants did *not* recommend the trader they had purchased their PAB from to other potential customers. Although initially Marcus's customers recommended their friends buy PABs from Marcus, after their PABs broke some of them stopped recommending him to their friends, recommending other traders – or going online (such as on eBay) - instead.

My CMTs relied on trust transfers. Closed markets work with people buying and selling not just from people they know, but from people they trust. One way to build trust is by knowing someone personally for a long time. This personal experience can be transferred when someone already known vouches for a friend. Social networks create a useful framework for building trust (Adler 1993; Decker and Chapman 2008; Ianni and Ianni, 1972; Zaitch 2002). Trust is important in illegal markets because there is no legal way to ensure that deals are kept (Beckert and Dewey, 2017; Dorn et al., 2005; Denton and O'Malley, 1999; Pearson and Hobbs, 2003).

The issue of trust and how this is managed differently by OMTs and CMTs also relates to the locations in which transactions occur. By selling in semi-public places, and to strangers, OMTs are willing to take on more risks than CMTs. As described above, my CMTs advertised PABs or IMS to trusted individuals in

social situations at private and semi-private locations. Sometimes it was at a pub, other times at a house party or at their mutual workplaces. Customers also placed their orders at these locations. Section 7.6 explores why CMTs operated in closed as opposed to open markets. As my CMTs illegally modified devices after the customer had placed their order, they did not carry spare ISDs for potential customers to purchase the product immediately. After a customer placed their order, my CMTs arranged a place to meet the customer to deliver the ISD, receive payment or collect the streaming device to be modified. My CMTs' transactions occurred in different private places including the customer's or seller's house, or the mutual workplace.

6.4.3 Social network suppliers

I identified four SNS in my study, they all only provided IMSs, not ISDs. There were differences in that not all of them offered to illegally modify the same streaming devices, although most SNSs illegally modified firesticks in either Springfield or Beachland. IMS for android boxes were only offered by one trader in Beachland.

SNSs advertised IMS in similar ways. When SNSs heard their friends or family mention that they wanted to watch football, but did not want to pay subscription fees, or that they wanted to watch a movie that was on at the cinemas but could not afford to go, they offered their services. On one occasion, I overheard Jessica say her PAB was broken and Michael offered to fix it. Unfortunately for Jessica, he could not repair it, and she was complaining about this at Stan's Place. This resulted in Paddy's wife informing Jessica that her husband could fix it. When a customer asked my SNSs for their devices to be illegally modified the customer gave the trader their device and then collected it from the trader the next day or several days later. There was not a fixed venue where SNSs advertised their services or a fixed location where the customer gave then later collected their streaming device. SNSs told their friends and family about their services wherever they saw them, and the customer handed over and later collected their streaming devices whenever they saw the trader. As part of everyday life, customers sometimes saw SNSs at pubs, workplaces, or social gatherings at a house. In exchange for this service, their customers rewarded them with a pint at the local pub to say thank you. As SNSs did not ask for money

in exchange it is questionable whether these service providers can be called 'traders' and their 'customers' called as such.

6.4.4 Comparing traders

When I compared my traders' criminal career histories, I found that OMTs were much more likely to be involved in multiple illegal markets simultaneously than CMTs and SNSs. Due to their history of selling illegal goods, OMTs may have been more comfortable trading in an open market or perhaps they were even more weary (i.e., Ralph), as they were aware of the potential risk of detection, but they traded anyway to make money. My sample showed that people involved in trading ISDs are likely to have been involved in other illegal markets (particularly the pirated DVD market). Therefore, the structure of the ISD market overlaps with other illegal markets.

All my traders offered access to movies, TV shows, and sports. In addition to this 'Porn Star' offered pornography channels and, unsurprisingly, his target audience was men. His female customers described his sales pitch as entertaining because he would describe all types of porn, catering to all sexual preferences.

When I compared OMTs' and CMTs' target audiences they were similar in that they primarily targeted men rather than women because their target audience was sports-focused individuals, which they assumed would be men. Traders reported that most people purchased PABs or IMS for the Live Sports channels to watch football and boxing. Traders commented that they were willing to sell to anyone that had been vouched for including women, but CMTs reported they had no female customers. Most of my ISD buyers were men purchasing from men. My CMTs did not have any female customers because all my female CMCs commented that their male partner or a male family member that they lived with had already purchased one. As Vicky said, 'I didn't get a chance to buy one', Rhianna said something similar. Others commented that they had not heard about PABs until their partner or family member brought one home. This shows that men introduced other men to the ISD market. Traders of illegal goods targeting a certain demographic or targeting customers within a specific

geographic area is not uncommon as it has also been found in other illegal markets (Hall and Antonopoulos, 2015, 2016; Potter, 2018; Von Lampe, 2016).

When I compared the town that my traders operated within against the type of illicit product or service they offered, some interesting similarities and differences emerged. In relation to selling an illicit product (ISDs), my traders sold PABs in Springfield and Beachland, suggesting there was demand for PABs in both towns. In relation to PFSs, only traders in Springfield sold this product, suggesting that there was no demand for PFS in Beachland. Traders that offered IMS for firesticks operated in both towns whereas traders that offered IMS for android boxes only operated in Beachland suggesting the type of streaming device customers wanted differed between towns. Mackenzie was the only trader who offered IMS for droid sticks. As he traded within a different town to my other traders this suggests there was demand for IMS for droid sticks in Sandland but there was not within my other towns. I asked some service providers why they only illegally modified one type of streaming device and they explained that they were responding to consumer demand. Section 6.1 explained why some traders sold ISDs and did not sell IMS and vice versa.

As identified in section 5.4 the type of device consumers wanted differed between Springfield and Beachland depending on the year. To reiterate, in Springfield demand shifted from PABs to PFS whereas in Beachland demand broadly shifted from PABs to PFS to 4K PABs. Demand shifted as technology evolved. These findings suggest that the reason there was a variation in the type of device that traders illegally modified or sold was that traders were responding to demand which differed between towns.

This discussion raises the question of *why* different demand might exist in different towns. As discussed in section 5.4, some consumers reported that they only purchased a new streaming device (upgraded it) when their device stopped working (i.e., it no longer provided access to illegal streams). They did not follow trends in technology. Others reported they wanted the best quality device on the market, 'I want to keep up with the Jones'. For some, this involved upgrading from PABs to PFS, and for others from PFS to 4K PABs. None of the ISD traders or end-users in Springfield I spoke to had heard of 4K PABs which partially explains

why they did not make this shift in streaming devices whereas some traders and end-users in Beachland did.

6.5 Typology

Overall, the ISD trade takes different forms, I identified four dimensions in which differences can be observed. My four dimensions demonstrate how complex and diverse the retail level distribution of ISDs is, varying by the product or service sold, social or organisational structure, traders' motivations and who is being sold to. There are several commonalities across types as well as some important differences which enabled a typology integrating these four types to be developed. Traders could be classified as selling products or services, as sole traders, partnerships, or criminal groups, as being profit or non-profit motivated, and as operating as OMTs, CMTs, or SNSs. Consequently, there were 36 potential types of traders - but by no means did all of them exist within my study. I identified four main types. Sole traders that operated within open markets, this carried more risk and more profit opportunities than CMTs, although both are still limited. Sole traders that operated within closed markets, had a limit to how willing they were to take risks and their customer base and profit levels were limited due to where they sold and who they sold to. The small group/family model involved a partnership organisational structure. They were able to increase their market involvement over sole traders with minimal increase in risk because families are trustworthy. They operated within closed markets. An organised crime model involved a criminal group structure. By operating within this structure, they were able to maximise profit, risk was accepted but managed through division of roles. They operated within closed markets.

6.6 The role of organised crime in the ISD retail market

To reiterate, the Federation Against Copyright Theft (FACT), National Trading Standards (NTS), and Intellectual Property Office (IPO) have claimed that OCGs or organised criminals are involved in the sale of ISDs in the UK (Forster, 2015; IPO, 2015; 2017b; FACT, 2017a) and this study intended to test this claim. There are three problems with this claim. Firstly, they did not state what they meant by the term OCGs or organised criminals which is problematic because, as these terms are socially constructed, there is a conceptual debate

surrounding them (Rawlinson, 2008). (See Von Lampe, 2016 for a detailed overview of the problems defining organised crime). 'The term organized crime is not used consistently: Is it the organization of crime, the organization of criminals, or the exercise of power by criminals?' (Von Lampe, 2016:2).

There are three different ways to conceptualise organised crime: criminal activities, offender structures, and illegal governance (Von Lampe, 2016). Some authors perceive organised crime in terms of collectively, criminals collaborating rather than working alone (Hobbs, 2013), either as a network, organisation, or group (Abadinsky, 2016; Hagan, 2006; Taylor, 1999). However, some texts use the terms 'criminal network' and 'criminal organisation' as synonyms therefore sometimes there is not a clear distinction between these terms. The literature that focuses on group structures discusses the crime groups function, which is primarily to make a profit (Fijnaut et al., 1998; Passas, 1999; Van Duyne, 2006). In contrast, other authors view organised crime as an activity, that is different from conventional crime due to the types of offences committed, and argue that market forces and market activities shape criminal structures (Albanese, 2015; Block and Chambliss, 1981; Potter, 1994; Van Duyne, 2003). For example, the type of criminal activity offenders are involved in will affect how many people are involved in the crime commission process and how many stages there are (Von Lampe, 2016:33). There is a lack of consensus regarding what constitutes an organised crime activity (von Lampe, 2016; Wright, 2005; Albanese, 2015; Abadinsky, 2007; Von Lampe et al., 2006). Illegal governance is not relevant to market-based crimes, therefore is not relevant to this study which focuses on the trade of ISDs. As academics have interpreted the concept of organised crime in different ways, how the author perceives organised crime affects how the topic is analysed and researched as a phenomenon (Antonopoulos and Papanicolaou, 2018; Von Lampe, 2006). Subsequently, to conduct 'rigorous research' and to provide a clear understanding of organised crime academics must have a clear and precise definition of the problem, to avoid comparing apples with oranges (Cressey, 1972:7; Von Lampe, 2002).

Secondly, law enforcement agencies have provided scant evidence of an organised criminal connection to the ISD marketplace, such as empirical studies

to support their claims, therefore it needs to be empirically tested. These agencies have made this claim within their reports:

'Organised criminals, especially those in the UK who distribute set-top boxes, are aware of recent developments in the law and routinely exploit loopholes in it' (IPO, 2017b).

'Digital piracy is also part of the trade in counterfeit goods which is well recognised as a source of funds for organised criminal groups. According to authorities in the UK and around the world, selling ISDs is increasingly becoming a part of their broad mix of counterfeiting activity which might also include selling fake clothes, mislabelled alcoholic drinks or counterfeit luxury goods' (FACT, 2017a:12).

In America, members of anti-piracy agencies have made similar claims about the relationship between OCGs and the pirated DVD market to those of UK anti-piracy agencies (Potter, 2015; Mcllwain, 2005). For example, the Motion Pictures Association claimed that OCGs are involved in film piracy. Mcllwain (2005) investigated the relationship between OCGs and film piracy in America by analysing IP reports, press releases, government data, and by interviewing members of an anti-piracy agency. He concluded that there is a lack of information and reliable data available to the public to establish a link between the two. Similarly, Antonopoulos et al., (2011) researched whether OCGs were involved in the pirated DVD retail market in Greece by interviewing local law enforcement and pirated DVD traders, but unlike Mcllwain (2005) Antonopoulos et al., (2011) were able to reach a conclusion: OCGs were not involved. Antonopoulos et al., (2011) interviewed different people than Mcllwain (2005), suggesting that researchers can ascertain whether OCGs are involved in the sale of illegal products, such as ISDs, if they interview local law enforcement and sellers of the illegal product.

Another problem with law enforcement agencies' claims that OCGs are involved in the sale of ISDs in the UK is that previous claims they made about the involvement of OCGs in various illicit markets in the UK have not been supported by research (see section 3.2.2). Therefore, their current claims regarding a connection between OCGs and the ISD market need to be tested.

This research aims to understand whether OCGs are involved in the sale of ISDs within two towns in Northeast England by comparing definitions of organised crime against the ISD schemes I encountered. Within the documents (FACT, 2017; IPO, 2017) where law enforcement claimed that OCGs and organised criminals are involved in the ISD trade in the UK they did not state which definitions they were using. To ascertain a clear definition of organised crime, some academics in the UK have adopted the UK policy definition, which is conceptualised by the law enforcement body National Crime Agency (NCA) (Murray, 2017; Levi and Maguire, 2004). As this claim was made by UK agencies (FACT, 2017; IPO, 2017) about crime in the UK in documents that were published in 2017, I chose NCA's (2017) definition. I acknowledge that definitions of organised crime evolve and by the time of writing (2023) their definition may have become outdated, yet it is the most relevant to this study. Another reason I chose a UK definition of OCGs is that there are differences in how criminals organise themselves in the UK compared to America and Italy as there is no British mafia therefore it is inappropriate to apply American models (e.g., Mafia models) to describe OCGs in the UK (Von Lampe and Antonopoulos, 2018). In the UK, no single crime group can control a local illegal market due to actors' flexible and entrepreneurial structure while in Italy crime groups can control local markets (Antonopoulos and Papanicolaou, 2018; Hobbs, 1995; 2013).

Criminal collaboration can be understood as a network. 'Viewed as a network, these individuals do not necessarily commit themselves to a common purpose beyond their individual interests, preferences, and type of activity' (Antonopoulos and Papanicolaou, 2018:4). NCA (2017) have adopted a crime network definition of organised crime. Subsequently, the broader question becomes does my sample of ISD traders fit the crime network model of organised crime?

I have divided NCA's (2017:8) definition of an organised crime network into seven criteria which I will compare against the illegal schemes I encountered:

1. Commit serious and organised crime
2. Operate in loose networks based on trust, reputation, and experience
3. family ties bond members

4. Members are from different ethnicities with international links to facilitate criminality
5. The crime group is based abroad
6. Members specialise in a particular criminal trade
7. Motivation is profit

Like all definitions of organised crime, this definition has problems. It is very vague as it does not state how many people and how long members must work together before being considered a crime network. However, the main problem is NCA did not specify how many criteria were needed for a group to be considered a organised crime network. Other definitions of organised crime, such as the European Union's (1997), are more specific with a requirement that six of their eleven characteristics need to be met. As their definition stated more than half the characteristics must be met, I will apply this requirement to NCA's (2017). The same problem arises with members of law enforcement's conceptualises of organised crime as academic's conceptualisations, because NCA (2017) viewed organised crime in terms of structure (e.g., crime network) and activity (criteria one). Definitions of organised crime tend to be a lot broader than is meaningfully useful (Von Lampe, 2016) and this one is no different. Even though NCA's definition has problems it provides a useful starting point for understanding the role of OCGs in the ISD retail market.

The first criteria is problematic because what constitutes a serious and organised crime is subjective, law enforcement, policymakers, and academics view these terms differently (Von Lampe, 2016). A crime that involves planning and preparation are characteristics that set organised crime apart from 'impulsive, spur-of-the-moment criminal acts' (Von Lampe, 2016:3). In a cross-national review of the organised crime literature, von Lampe et al (2006) found 100 different offence types which were labelled as organised crime which broadly can be summarised to the trade of illegal goods and services and predatory crimes. Under their definition, the trade of ISDs would constitute an organised crime activity. Their review demonstrates that there is a broad range of offence types that fall under the broad umbrella term of organised crime activities. This leads to a questioning of the usefulness of this term in understanding illegal activities. When interpreted this way, as my traders sold ISDs they fit NCA's first criteria.

My retailers were not aware of the involvement of OCGs in the ISD market. When I applied NCA's (2017) definition I found that none of my retailers were themselves part of OCGs or 'crime networks'. Of the traders I observed, I have one example (Anthony's illicit scheme) that perhaps does fit as OC (and would fit many different definitions of OC including NCA's (2017) definition) as his scheme involved a group structure. Anthony's scheme involved a loose network of associates recruited based on trust; therefore his scheme met NCA's criteria two (see section 6.3.2). Trading relationships within illegal markets are often formed based on trust rather than coercion (see section 3.2.2). No matter what definition of OC is used, all definitions include some degree of 'organised' or 'organisation' (e.g., Conducted by people working together, (European Union, 1997; National Crime Agency, 2014, 2015, 2016, 2017; 2018; Sergi, 2015; von Lampe et al., 2006). Most definitions that focus on group structure set the minimum limit as three people collaborating (Von Lampe, 2016) as Anthony had five associates his scheme meets this minimum threshold. But whether his scheme counts as an OCG depends on which definition is used because some definitions (including the NCA's, 2017; European Union's, 1997) have additional characteristics than a group structure. Members of Anthony's scheme were not related, nor from different ethnicities, nor were they based aboard therefore criteria three to five were not met. As far as I know, members of Anthony's scheme only sold ISDs, therefore would meet criteria six. As members were profit-motivated they met criteria seven. Anthony's scheme met more than half (four) of NCA's criteria therefore according to their definition it constituted an organised criminal network.

Most of my sample were sole traders (section 6.2) therefore clearly do not fit NCA's (2017) crime network model, which requires criminal collaboration, or any definition of organised crime which requires a group structure. Some of these traders, OMTs and CMTs, were profit-motivated (criteria seven) and sold ISDs (criteria one) but did not meet the requirement of more than half of the criteria. This suggests that while OCGs may exist in the ISD market, it is not widespread or dominant at the retail level. And even where I have seen 'organisation' within the market (e.g., Anthony's scheme) it does not really seem to fit the degree of organisation/OCG involvement implied in the policy

statements. Arguably, my sample of ISD traders suggests that law enforcement agencies overstate the organised crime role in the ISD market.

My ISD traders speculated that OCGs are not involved in selling ISDs because there was a lack of financial incentive for them, trading offered low-profit margins. As Marcus stated, 'there was not much money to be made selling dodgy boxes'. As discussed earlier, my profit-driven traders' profit margins were limited because they encountered problems building their customer bases (See section 6.3). Furthermore, my traders speculated that the ISD trade is less profitable than other illegal markets, and as OCGs primary function is to make a profit (Fijnaut et al., 1998; Passas, 1999; Van Duyne et al., 2006) OCGs may not have viewed this trade as profitable enough to enter.

The lack of OCGs involvement in the ISD markets I encountered was likely because I studied retail markets. As discussed in section 3.2.2, research shows OCGs tend to be involved at upper levels rather than retail levels of illegal markets supply chains (Dorn et al, 1998; Hobbs, 1995, 2013; Hornsby and Hobbs, 2007; May and Hough, 2001; Pearson and Hobbs, 2001; Ruggiero, 2000). Therefore, OCGs may have been involved in the ISD trade at wholesale level.

I have some insight into where my traders got their streaming devices from. All my OMTs purchased pre-modified boxes from illicit wholesalers whereas CMTs purchased from licit wholesalers. OMTs reported there was no OCG involvement at the level they were purchasing PABs from, but they do not know for sure as their suppliers may have been unwilling to disclose this information to remain hidden. Ralph: 'The bloke I buy my gear from isn't part of the Mafia, he doesn't go around beating people up or making millions, he's just a bloke that sells stuff to make money. He does have a [nice sports car]'. Other participants provided a similar definition of organised crime as Ralph, it has two main characteristics: violence and profit motivation. They reported their definitions were based on media (news, TV shows, and movies) representations of organised crime which often involve gangsters or heads of Colombian drug trafficking organisations that dominated the global cocaine trade in the 1980s and early 1990s (e.g., Pablo Escobar and Griselda Blanco), who held respect amongst their community at the time they operated because of the wealth and

power they gained from illegal activity (Von Lampe, 2016). To reiterate, the public's understanding of crime (including organised crime) comes from the media (Jones, 2017). Again, my sample of traders did not meet all characteristics of their own definition of organised crime as they did not use violence (section 7.7), but some traders were profit-motivated (section 6.3.1). Clearly, the media and therefore the public have different definitions of organised crime than law enforcement, academics, and policymakers which again questions the usefulness of this term for understanding illegal activities.

I have insight into the wholesale level with Anthony. It is unclear whether Anthony should be seen as a co-ordinator of a retail organisation (cf. Dorn et al., 1992) or a middle-market supplier to retailers (e.g., Anthony; cf. Pearson and Hobbs, 2001). Nevertheless, he was involved at the wholesale level by supplying boxes to his retailers. He purchased directly from the manufacturer, there were no 'middlemen' (Pearson and Hobbs, 2001), this may have been possible because he purchased from legal sources (Alibaba).

My retailers did not believe OCGs were involved at higher levels, but it is difficult to be sure. Their knowledge and understanding are limited to their experiences, and just because they say the person they bought their PAB from is not part of an OCG does not mean that is true.

Whether OCGs are involved in the ISD market I studied depends on which definition of OC is used. There are criminal organisations involved (Anthony's scheme) that would fit some definitions of OCG and would support FACT's (2017) claim that OCGs are involved in the ISD trade. In response to FACT's claim, arguably the discussion should be whether the definition of OCG is in any way useful rather than whether there are groups that match this definition. This debate often arises when law enforcement claims that OCGs are involved in illegal markets (Hobbs, 2013; Von Lampe, 2015; Hornsby and Hobbs, 2007).

7- Is trading ISDs a risky business?

Traders of illegal goods encounter different risks, with law enforcement activity being the most salient threat, but with other risks, including competition (and potential violence) from other market operatives, coming into play (Dorn et al., 1998; Desroches, 2005; 2007). Mitigating these risks is an important part of being an ISD trader, and it is these Risk Management Strategies (RMSs) that are the focus of this chapter.

The chapter describes the risks encountered in the ISD trade and the strategies market participants implemented to mitigate these. I begin by examining my traders' beliefs about the legality of selling ISDs and their perceptions of the likely penalty if caught. I describe the stages in the ISD supply chain and then explore the risks my traders identified at each stage. Then I describe the risks traders identified when trading devices to their customers and the RMS they applied. Then, I explore the risks that ISD buyers and end-users encountered. After that, I assess the likelihood of trader's perceived risks occurring by comparing them with how law enforcement actually operates. I conclude by arguing the ISD trade is a low-risk market compared to other illegal markets. As all traders I knew were able to trade without being detected by law enforcement, this chapter may explain how and why traders were able to remain hidden. These explanations might be applicable to other illegal markets.

7.1 Trading ISDs: A slap on the wrist or prison?

Risk takes two forms: perceived risks, which are subjective and based on laypersons' perceptions, and actual risks identified by experts, such as risks that have occurred in the past (Shrader-Frechette, 1990; Jasanoff, 1998). As with all illegal markets, ISD traders face an *actual* risk of prosecution with, as discussed in section 2.2.5, their likely penalty differing depending on the size of their illicit scheme. I expected that traders' perceptions of the risks involved in the ISD market would differ depending on whether they believed selling ISDs was legal or illegal.

When I asked James whether selling dodgy boxes or sticks was illegal, he responded: 'I don't know, and I don't care'. Similarly, several Open Market Traders (OMTs) responded with something similar to Taylor: 'I've never really

thought about it'. Arrow just gave a disapproving look and shook his head. Most of my traders were not only confident that the trade of ISDs was illegal, but also knew at what point devices become illegal:

Gareth: *'Of course it is illegal. It is not illegal to sell the boxes it is illegal to download the stuff onto the boxes...Everyone knows you have to pay for Sky...watching Sky Sports without paying Sky for it is stealing'*.

Ralph: *'It is legal to sell android boxes, the box itself is legal. It's the software and apps you download to get free stations and free channels that is illegal'*.

I expected that as my traders knew what they were doing was illegal, they would have implemented RMS to avoid detection. But surprisingly, as this chapter will demonstrate, for many of them, efforts to avoid risk were minimal. Arguably, they *all* implemented at least *some* RMS - if only in their decisions on who to sell to, and where. My OMTs sold in semi-public (e.g., pubs and clubs) rather than public places (e.g., street corners), and Closed market traders (CMTs) mostly sold in private places.

However, some of my traders had not always been confident that the trade was illegal. Some traders' perceptions of the law and penalties for trading ISDs changed over time in response to changes in the media's portrayal of the law which had changed due to developments in IPTV case law in the Filmspeler case. For example, two of my traders (Lee and Allan) reported that when they started, they were unsure whether trading ISDs was illegal due to the media in England portraying it as a legal grey area. When I interviewed Lee and Allan in November 2019, they were confident that the trade of ISDs was illegal.

Lee: *'Now I know it's a crime but back in the day [when he started trading] well I thought no one had been arrested so it must not be a crime... I didn't know if it was a crime to sell fully loaded sticks'*.

Allan: *'Everyone should know it's breaking the law by now. If the [news]papers aren't giving you clear advice on what is the law, you are gonna get the wrong end of the stick'*.

Back in 2015 Allan said 'it was only a matter of time' before the courts declared the trade of ISDs illegal because it was highly unlikely that Sky would let people watch Sky Sports for free.

Their view was unsurprising because, before the Court of Justice of the European Union (CJEU) judgment in the Filmspeler case, which held that selling ISDs is illegal (see section 2.2.3), the media in England, particularly via Thompson's case, kept reiterating that the trade of ISDs is a legal grey area (see section 2.2.4). It is important to note that, like the general public, my sellers reported that their knowledge of the law came from the media and 'word-of-mouth' (Jones, 2017). Therefore, if the media portrays the law inaccurately then ISD traders will also have an inaccurate understanding of the law. When Lee started trading (in 2016), ISD traders had been arrested (see section 2.2.1) but he was unaware of this, suggesting publicity of arrests was not as widespread as it could have been.

As with most illegal markets, a key concern for participants was that they would be detected. My traders were particularly concerned that their suppliers or customers could be undercover police, Trading Standards officers, or informants. They were also concerned that someone could witness the transaction then 'snitch' which could result in their arrest.

Fieldnotes summary: Several times, I observed that when strangers approached Lee and his associate Allan in Joe's Tavern they were treated with caution and mistrust. This was regardless of whether they wanted to purchase an illegal modification service (IMS). Allan pretended he did not know what the stranger was talking about until they dropped the name of someone who could vouch for them. This behaviour was often entertaining to watch. When the potential customer left, Lee and Allan's friends laughed. My contacts in Joe's reported that this cautious behaviour was because outsiders were assumed to be undercover police or Trading Standards officers until they could prove they were not.

Similar events occurred a few times, including years ago when Lee and Allan thought trading ISDs was a legal grey area, and at the time of the interview, when they knew it was illegal. They explained that even when they were not sure

of the legal status of the ISD trade, they did not want to risk selling to strangers in case it was illegal.

I asked traders what they thought would happen to them if they were caught. Several OMTs responded with something similar to Taylor: 'Again, I've never really thought about it'. Most traders reported that they thought they would receive some form of punishment if they were apprehended. They had mixed views of the likely penalties but were all confident that they would not get custodial sentences. Gareth and Ralph were rather arrogant, claiming they had put enough RMS in place to avoid detection. Nevertheless, Gareth stated 'if they were lucky enough to catch me, they wouldn't send me to prison'. When asked about the likely penalty other traders responded less arrogantly, but still confident that the risks were quite low. Lee reported the trade posed a low chance of arrest and prosecution. Similarly, Allan explained that Bob got caught selling pirated DVDs (boxed-text 7.2) and 'all he got was a slap on the wrist so that's all we'd get'.

Marcus believed he was unlikely to be prosecuted if caught because the ISD trade was a low priority for law enforcement, which Trading Standards confirmed.

Fieldnote summary: Marcus explained that the police do not have the time or resources to investigate suspected ISD traders as they have 'real criminals to catch'. Nevertheless, he had prepared an excuse in case he was stopped and searched by police while carrying pirated android boxes (PABs) around Christmas, which implied he was cautious: 'If the cops pulled me over at Christmas time my excuse was going to be these are Christmas presents for my friends'.

This was an example of Marcus taking advantage of the legal-illegal crossover within the ISD trade because supplying streaming devices is legal but supplying ISDs is illegal (see section 2.2.2).

Interestingly, when I asked Stan what he thought would happen if he was caught trading, he offered a different response: 'that would be getting arrested, prosecuted, losing my job as landlord, probably a criminal record as I would be prosecuted for it'. This difference relates to his position as a pub landlord. This

role likely gave him a better understanding of the law. It very likely also put him at higher risk of both being caught and receiving a custodial sentence.

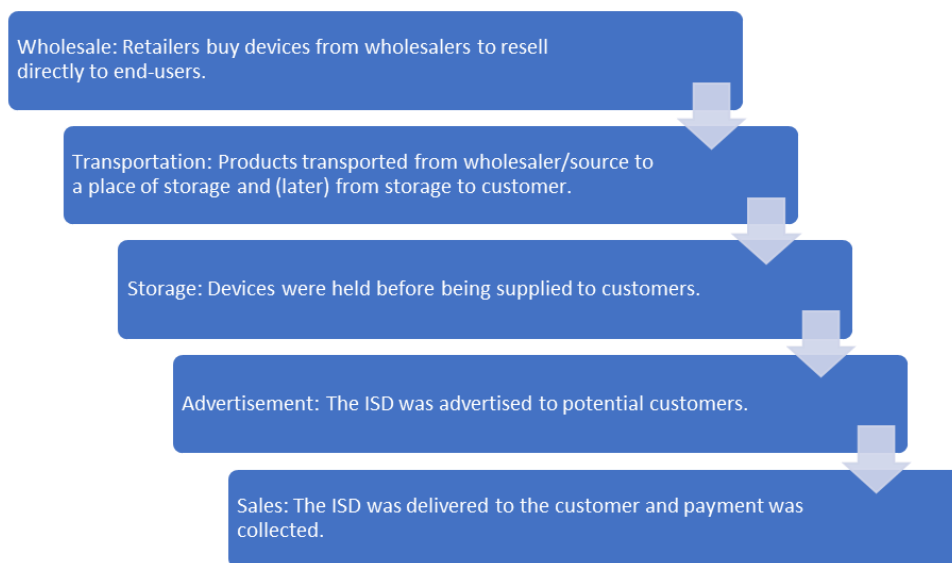
In contrast to all my other CMTs, James did not consider the trade of ISDs to pose any risks. As a result, he did not implement any strategies to mitigate them (and therefore is not mentioned anymore in this chapter). When I asked James 'do you worry about going to jail?' he laughed, indicating he thought this was unlikely: 'Well, that bloke [Brian Thompson, see boxed-text 2.1] on the tele got caught he got a suspended sentence. He was selling a shit load. Back in the day, I sold dozens. They [police] aren't going to do shit'. Not only did James think he would not receive a custodial sentence for selling ISDs, but surprisingly, and unlike most people, he was not concerned about losing his freedom if he did: 'If I go to jail, I go to jail meh nothing I can do'. His careless disregard for risk reflected his 'I don't care' attitude towards the possibility of receiving a custodial sentence. James can still be seen as a rational actor: if he did not care about going to prison, why would he bother wasting his time assessing risks and putting strategies in place to minimise them? James only selling to trusted individuals seemed unusual as, unlike other CMTs, he was not concerned about the risks trading posed. When I asked why he did not sell to strangers he said, 'I can't be arsed to sell to strangers, too much effort!'

My traders' perception that they were unlikely to receive a custodial sentence was accurate for most of them. As identified in section 2.2.5, traders that sell in small quantities tend to receive cease-and-desist letters or community orders while traders selling in large quantities tend to receive custodial or suspended sentences. North East Trading Standards (NETS) explained that traders who claimed they did not know the ISD trade was illegal often sold small quantities and were given a formal caution. Traders who knew the ISD trade was illegal were often selling large quantities and were prosecuted. Out of my PAB traders, Anthony and Ralph were most likely to be prosecuted if their storage location was raided because they were storing larger amounts of android boxes (50 at a time) than my other traders.

7.2 Stages in the ISD supply chain

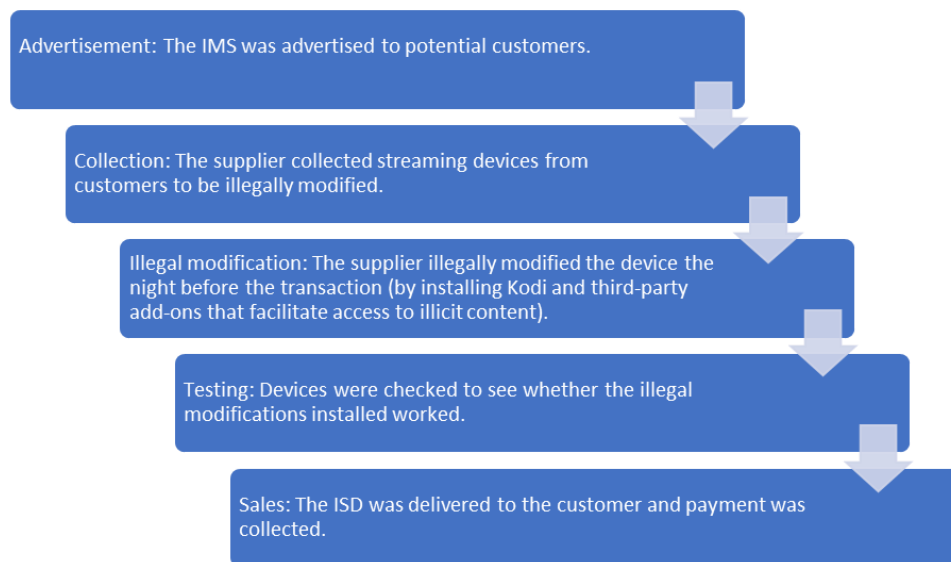
As with all markets, the ISD trade has different stages in the supply chain, although my knowledge of this is limited to the retail-level. Here I describe the chain and the risks traders identified at each stage. There were different types of trade: selling ISDs (chart 7.1) and providing IMS (chart 7.2), with different supply chains. Following Pearson and Hobbs (2001), some stages are filled by multiple people, and some people occupy multiple stages. Whether suppliers occupied multiple stages depended on the structure of their operations, with sole suppliers occupying multiple stages while suppliers that worked with others (e.g., Anthony and Lee's scheme) dividing stages up between them.

Flow chart 7.1 Stages when selling ISDs purchased from illegal sources



How many stages there were within an illicit scheme offering PABs differed, but variations did not relate to the different organisational structures. I identified two additional stages when selling PABs purchased from legal sources than those purchased from illegal sources: traders had to illegally modify and test them before sale.

Flow chart 7.2 Stages when supplying IMS



In one way providing IMS carried more risks than offering ISDs because supplying IMS needs repeat contact between customer and supplier. The supplier advertises their product and arranges to meet the customer, they meet for the supplier to collect the customers device, the supplier illegally modifies it then they meet again to return it and collect payment. Whereas traders offering ISDs advertise their product and sell it, if they have it with them, or meet the customer at a different time to sell it. The former involved three points of contact in which they could get caught, the latter involved one or two. In another way, offering IMS carried less risk. IMS suppliers were in possession of illegal goods only for a short time as they illegally modified the device the night before returning it. In contrast, traders purchasing PABs from illegal sources were in possession of illegal goods for a longer period of time as they stored them until they could sell them.

The following provides further information about each stage in the ISD supply chain and describes the risks my traders identified at each stage. Some stages are self-explanatory, and traders did not identify risks at every stage. But before doing that it is important to talk about Ralph. He overestimated the likelihood of risks occurring at every stage.

7.2.1 Ralph case study

Ralph saw risks at all stages in the ISD supply chain. There are several examples of where Ralph overestimated a risk. When purchasing devices, he

feared his wholesaler might be an undercover police officer and therefore only purchased from a wholesaler that had been vouched for. He also feared he and his supplier might be under police surveillance and therefore avoided using smartphones to communicate, as he worried they could trace his location. He also believed the government was listening to his calls. (In response to this risk, he sat on his phone during the interview). Ralph purchased his PABs in cash because this payment method was less traceable than electronic payment. When selling to strangers he believed there was a risk that the customer might be an undercover police officer or police informant (see section 7.5).

I asked Ralph how he contacted his wholesaler.

Ralph: *'I ring on me burner phone and arrange a time and place to meet. We do it in houses, but we never do it in my house! You never do it in your house in case the cops are following them [the supplier] because then the cops would be following you! If the cops were investigating him, they would follow him and lead them right to your house and you would be a suspect. Then they would follow you, you would be an associate of his! We meet up at his house or his place of business where he sells the boxes from... I never use smartphones to make phone calls, always burner phones Nokia 3310, old phones that don't have GPS or the internet.'*

Lisa: *'What is a burner phone?'*

Ralph: *'No tracking, no one can listen to it. It is classed as a disposable phone coz it can't be tracked, no names or information associated with that phone. As we all know with smartphones, they can listen and trace your movements like phone calls that you have made. Which if you get caught then they have all that information to prosecute you, which is why you use burner phones, not smartphones!'*

Ralph said that when purchasing PABs, he met his supplier in their house rather than his own in case the supplier was under surveillance by law enforcement. I identified other examples of Ralph's paranoia:

When I interviewed Ralph in a cafe, he sat on his phone and asked me to do the same. He tried to convince me that 'the CIA is listening' because

the government uses smartphones as listening devices to spy on its citizens. Of course, I played along to get an interview with Ralph. But unfortunately, he quickly left the cafe when a stranger commented on something that he had said even though they only said, 'I like that TV show too'. I rescheduled the interview for another time; Ralph was eager to share his views, which included a lot of conspiracy theories.

Ralph also reported that if police confiscated his phone, they could read his deleted text messages or use his call history to see who he had talked to. He said this information was 'common knowledge' that he learned from watching 'cop shows'. Interestingly, this shows that not only do traders' knowledge of the law come from the media, but their perceptions of risk do too. Ralph's understanding of how law enforcement operations work was based on fictional TV shows (e.g., CSI) often set in America, hence Ralph mentioning the CIA which we do not have in the UK, created for entertainment purposes and leaving him with a perception of risk that was not an accurate reflection of the actual risk (see section 7.10.3). Research within illegal drugs markets does support Ralph's belief as they have shown this is a tactic law enforcement deploy (McEwan, 2011). Similarly, other studies of illegal traders have also shown dealers use burner phones to ensure the privacy of communications and mitigate the risk that a mobile phone may link the dealer to their illegal activity (May and Hough, 2001; 2004; Salinas-Edwards, 2013). However, due to the widespread availability of smartphones and social media apps, burner phones are becoming outdated and have been replaced by encrypted messaging apps (BBC, 2021a; Moyle et al., 2019). Obviously, Ralph would not use such apps as they require using a smartphone which, as discussed, posed a problem for Ralph.

I was curious to understand why Ralph was more risk-averse than my other traders. He explained that he became more conscious of the government and law enforcement spying on him after watching the movie Snowden (2016), about 'Edward Snowden, a CIA subcontractor and whistle-blower who copied and leaked highly classified information from the National Security Agency' (Snowden film, 2016). The Snowden scandal was important in shaping Ralph's risk perceptions. Given that Ralph was purchasing 50+ devices at a time per month

he was running more risk than most traders, therefore some of his paranoia may actually be (relatively) justifiable.

7.3 Risks when purchasing the product

Retailers purchased from wholesalers. There were two types of wholesalers, those who sold *licit* and those who sold *illicit* streaming devices. Wholesalers that sold licit streaming devices were legal actors, they were part of the distribution chain that was not at all criminal, selling online, offline (over the counter) or both. They were not engaging in illegal activity. Their licit product then entered an illicit market. In contrast, wholesalers that sold ISDs were engaging in illegal activity and were part of the illicit market. Consequently, a legal and illegal wholesale market fed into the illegal retail market. Subsequently, there were two types of retailers: those who buy licit streaming devices and then install illegal modifications, which result in the device becoming an illicit product, and those who bought pre-(illegally) modified devices. Interestingly all my CMTs fit the former category while all the OMTs fit the latter category, which initially suggests CMTs were more risk-aware than OMTs. However, CMTs stated they were unaware of illicit wholesalers' existence. OMTs knowing about illicit wholesalers suggests that they are more generally involved/embedded in/aware of a broader criminal culture than CMTs.

I now explore the risks encountered when purchasing boxes for resale from wholesalers. I wanted to know what risks traders identified when purchasing from an illegal source, so I asked Ralph and Stan how they chose their respective suppliers:

Ralph: *'I found a guy and I use him regularly, someone said he sells good stuff...Some people out there will be selling dodgy gear and cops will pretend to be something they're not, so I use the same bloke. On my cop TV shows, dealers get nabbed by undercover cops selling drugs, but I don't know anyone that's been nabbed for buying fully loaded android boxes.'*

Stan: *'Because a mutual acquaintance was already buying from them and had been for many years and told me what a good product it was. I won't*

buy from strangers coz it's a possibility that they could be an undercover copper or selling dodgy stuff. If you sell faulty stuff someone will snitch'.

Interestingly, both Ralph and Stan felt that if they purchased PABs from illicit wholesalers who were strangers, they would encounter two risks. Firstly, wholesalers might be undercover police officers which may lead to their arrest. However, neither actually knew of any traders that had been detected for purchasing PABs from undercover police. Secondly, the wholesaler might have been selling faulty goods which may result in their customers reporting them to law enforcement. Although Ralph and Stan did not provide any examples, I know from other participants that this does happen because one illegal trader (Bob) was caught when a dissatisfied customer reported him to Crime Stoppers (see boxed-text 7.2).

As expected, to minimise these two risks both Ralph and Stan reported that they only purchased PABs from illicit wholesalers they trusted. Unsurprisingly, those I spoke to who purchased from legal sources (Marcus and James) did not discuss these risks. Traders purchasing from illicit wholesalers perceived different risks than those purchasing from licit wholesalers.

After asking Ralph and Stan how they were introduced to their illicit wholesalers, I then asked how they contacted them. Stan: 'He's a regular customer I just take him behind the bar [in a private room] if I want to talk shop that way people can't earwig'. Stan told me that all communication between him and his supplier were in person. This was both out of convenience and as a RMS: Stan felt there was a risk that if patrons overheard their conversation, they might call Crime Stoppers. However, I found this unlikely given Stan's patrons were part of a community generally unwilling to report crimes (see section 7.7). Stan also reported talking in person in case his supplier was under surveillance. Stan was arguably being overly cautious.

As seen earlier Ralph's response was very different to Stan's. I expected Ralph would be less cautious than Stan because Stan had more to lose as a business owner. But Ralph was also overly cautious, perhaps even paranoid in using a 'burner phone' in response to the perceived risk that law enforcement may be listening to his calls or tracking his movements.

7.3.1 Payment method

As OMTs purchased from illicit wholesalers while CMTs purchased from licit wholesalers, I wanted to know if they used different payment methods and identified different risks. All my traders paid their wholesalers in cash, apart from Anthony who used PayPal. This difference was because Anthony was purchasing online. As expected, OMTs identified risks when purchasing illicit products which have just been discussed. Unexpectedly, some CMTs did as well, even though they purchased legal boxes.

As has been reported within other illegal markets (Pearson and Hobbs, 2001), most traders explained that they paid in cash because it was less traceable than electronic payment. Traders that purchased PABs (Stan and Ralph) explained they did not purchase from online wholesalers because they wanted to purchase from someone they trusted (e.g., someone that had been vouched for) and purchasing online requires electronic payments which are more traceable than cash payments.

Marcus and James purchased from the same licit wholesaler: a well-known clearance store that sold electrical goods that were no longer sold on high streets because they were outdated. They believed that purchasing licit boxes with the intention of making them illicit was not a crime therefore they did not have to worry about being detected when purchasing the boxes. Arguably, this could be conspiracy to commit an offence but, as far as I know, there have been no cases involving ISD suppliers being charged for this reported in the law reports or in the media in England suggesting either under English law it might be unclear whether this is an offence or other charges are more suitable. However, it is an offence to supply devices knowing they will be made illicit (see section 2.2.2). Furthermore, as both traders were sole traders, they did not need to worry about being charged with conspiracy to defraud under section 5(2) of the Criminal Law Act (1977) because this is only applicable to traders who work with others to commit a crime. Although, this offence applied to other traders in this study, such as Anthony as he was part of a group. Also, buying from 'legal' wholesalers for resale might involve committing other offences, such as avoiding VAT or other accounting aspects that would only apply to legal business customers. Repeat or bulk buying, even from legal sources, may also draw attention to the fact that they

were reselling these products illegally. As such, Marcus implemented RMS to avoid detection from law enforcement.

Fieldnotes: Marcus told me that it may have been suspicious to a wholesaler that he was purchasing in large numbers [a dozen] because it was unlikely to be for his personal use, although he also reported that the wholesaler may have thought he was a businessman. He said that he did not want to leave any evidence of his purchase therefore he paid in cash, leaving no electronic record linking him to his purchase.

My traders' preference for paying cash when purchasing a *legal* product to be used illegally echoes occurrences in other markets with a legal-illegal crossover. In the UK cannabis market, for example, some cannabis growers pay cash when purchasing (legal) growing equipment and nutrients, leaving no electronic record linking them to their purchase (Potter, 2010; Potter and Klein, 2020).

Fieldnotes: Anthony purchased 50 to 100 boxes at a time. Gareth explained that as Alibaba is a popular website for businesses purchasing wholesale quantities of products, and PayPal is one of the most popular payment providers, Anthony's purchases were unlikely to have raised suspicion.

In contrast to Marcus and James, Anthony purchased large quantities of android boxes from wholesalers in China via the online marketplace 'Alibaba', using PayPal (section 6.2.1). Interestingly, the one person who was operating on a large scale, the leader of a crime network, and arguably with the most to lose as a legitimate businessman, was also the one who was willing to take the extra risk by using PayPal. I did not speak to Anthony directly, but presumably he did not see transactions via PayPal as that risky, or he weighed it up and concluded that the advantages outweighed the disadvantages by recognising that although electronic banking posed a risk it offered more benefits (e.g., security, including a money back guarantee) than cash payments when purchasing in large quantities.

7.4 Risks during storage

For ISD traders, after the streaming device was purchased from wholesalers and transported to the storage location it was stored until it was sold. Risks during storage were more pertinent to those who sold illicit products (ISDs) than those who offered illicit services (IMS). As has been identified within other illegal markets, most PAB traders, apart from James, were concerned that their storage location might be identified by law enforcement (Broadhurst et al., 2005; Hornsby and Hobbs, 2007; Potter and Klein, 2020; Salinas-Edwards, 2013; Ancrum and Treadwell, 2016). Most of my traders stored their PABs in their garages (see chapter six). Interestingly, Stan was different, storing his PABs: ‘...in a garage in someone else’s name coz if it gets raided, I can deny all knowledge. It’s not my garage and they’re not my boxes’. Stan purchased fifteen PABs at a time so if the garage was raided by law enforcement, they would probably think the owner had an intent to distribute them. Registering property in someone else’s name and storing drugs there has also been used as an RMS by cannabis growers (Ancrum and Treadwell, 2016).

If it has not already been done, traders must illegally modify devices before selling them to customers. Most CMTs reported that when they received an order, they always illegally modified the device ‘at the last minute’ (i.e., the night before) before selling it (section 6.4.2.3). Interestingly, some traders, including James and Lee, did this to provide a ‘speedy service’ to encourage more customers, and due to practical reasons, such as working in the daytime. Other traders, including Gareth and Marcus, did this as an RMS because they did not want to be caught with multiple PABs in their houses in case law enforcement raided them. This reduced the amount of time they were in possession of illicit products. Some traders were more risk-averse than others.

Fieldnote summary: One day at Joe’s Tavern, Gareth explained his logic behind this: although streaming devices are not illegal, if law enforcement raided a house and found a large number of devices they may have considered the large quantity as an intent to distribute these products.

Marcus made similar observations:

'If anyone snitches on me to old bill and they come around mine and trashed my place looking for some dodgy boxes all they're gonna find is some [android] boxes. What [are] they gonna do me for, selling stuff without a business licence? They can't do fuck all man!'

Marcus's quote suggests that, as purchasing streaming devices is legal, he took advantage of the legal-illegal crossover surrounding the ISD trade. Unlike pirated DVDs, it is not obvious from the packaging or from the product itself whether the streaming device is illegal.

Marcus went on to explain that he used to sell 'knock-off DVDs' and it was sometimes obvious from the box and the disk that the product was a 'knock-off'. I saw some of Marcus's DVDs and confirmed this. Marcus showed me a photo of streaming devices still in their original packaging [Image 7.1]. He convincingly argued that it is not visible from the packaging or the product itself whether the product is illegal. He further argued that if Trading Standards raided his premises and found android boxes still in their original packaging, they could not prove that he had the intent to illegally modify and sell them, and therefore he could not be charged with the offence of selling ISDs.

The offences ISD traders could be charged with were described in section 2.2.2.

Image 7.1 Marcus's photo of Amazon firesticks



A problem with illegal markets that *do not* have a parallel legal market is that traders must sell their products quickly to avoid being in possession of large quantities of illegal goods that could increase their risk of imprisonment if they were detected. Inventory is a common concern for drug dealers (Moeller and Sandberg, 2019; Moeller, 2012). This was less of a problem for my ISD traders. As the ISD trade has a parallel legal market they did not have to quickly sell their product. However, some ISD traders were still concerned that their storage location might be detected by law enforcement.

7.4.1 Working with others: avoiding dirty hands

Risks were greater for those who worked with others, particularly during storage. As a reminder (section 6.2.1), apart from Lee and Allan, Gareth and Anthony were the only traders in my study who regularly worked with others. Importantly, as was seen in section 6.3.2, Gareth explained that Anthony knew the trade of PABs was illegal and posed a risk of prosecution. Anthony bought android boxes and got other people to illegally modify and sell them. Therefore, he delegated what he perceived as being the most high-risk activities to others to avoid, in Gareth's words, 'getting his hands dirty'. He cleverly distanced himself from direct involvement in the illegal aspects of the PAB trade. When his scheme began, he provided his associates with guidance on how to illegally modify streaming devices. This RMS of funding an illicit enterprise but getting others to do the 'dirty work', such as hiring runners and lookouts, is not uncommon and has been identified in studies of street-level drug markets (Harocopos and Hough, 2005; Moeller, 2012). Similarly, a trader employing others to conduct business on their behalf is common at the wholesale level within the illegal drugs trade (Broadhurst et al., 2005; Desroches, 2007; Dorn et al., 1998; Matrix Knowledge Group (MKG), 2007; Pearson and Hobbs, 2001).

As with all illegal markets, there was a risk that Anthony's illicit enterprise would be detected, most likely through his storage location, resulting in all his PABs being seized.

Gareth told me that, as an RMS, Anthony had several individuals in different towns in Northeast England illegally modifying and selling PABs for him. Because if any one trader was detected there would be no

evidence that they were part of a larger illegal operation. Anthony commented that if one of his traders was raided and the product seized it would not result in unsustainable losses. Gareth praised Anthony's logic but commented that he did not like being a 'scapegoat' which implied that he felt like he was occupying a replaceable role within Anthony's enterprise.

The RMS Anthony applied was similar to the RMS Potter (2010) identified in his study of commercial cannabis growers. Potter showed that some commercial growers made efforts to hide the scale of their operations (to minimise the severity of sanctions if they were detected) by growing cannabis in multiple locations – an approach he likens to running a franchising operation. This offered two benefits. Firstly, if one of these locations was discovered by the police there was a reduced risk that they would be able to detect that one site was part of a larger operation. Secondly, using multiple properties with different individuals responsible for each reduces the risk that the site would be linked back to the person funding and coordinating the illegal enterprise. Anthony's RMS were also similar to the RMS upper-level drug dealers used in Desroches (2005) study. These dealers had multiple individuals involved in their enterprises and used numerous safe houses to store the product because if the drugs were seized at one location or an employee was arrested this would not lead to unsustainable losses.

7.5 Risks when selling to customers in open markets

The final stage in the ISD supply chain was selling to customers. The sales process for OMTs was already explored in section 6.4.1. I now move on to unpick the risks traders encountered at this stage. This relates to understanding why some people operated in Open rather than Closed markets.

Risks for OMTs differed depending on how they were advertising. Ralph took more precautions to minimise risk when advertising than my other OMTs. Ralph pretended he was advertising PABs on behalf of someone else whereas my other OMTs wandered around pubs asking strangers if they wanted to buy IMS or ISDs, admitting they are the trader (see section 6.4). If the police were in that pub or club and overheard the latter, they could immediately begin investigating that trader by making a test purchase potentially leading to

prosecution. Whereas they would need to find out who is the trader Ralph knows and arrange to meet him again to make a test purchase. Ralph could choose whether he wanted to meet the potential customer again to make a sale, potentially avoiding detection.

I asked OMTs where they traded and why they chose that market.

Ralph responded: *'I sell locally in me hometown, I walked to the pub or club... and [sold] to whoever wanted to buy them! Because that's where the demand was. They come to me to buy. That's how I sold them word-of-mouth'*.

Stan responded: *'In my pub because I could sell them while I was working, no hassle'*.

Lisa: *'Do you sell in other places?'*

He frustratedly responded: *'I am not like a proper fucking distributor am I? I just sell them occasionally when someone wants one'*.

For Ralph, that was where the demand was. My other OMTs offered similar explanations for selling at pubs or clubs. Tom, Taylor, and Arrow also provided the same reasons as Wayne and Bruce (see section 6.4.1.5) why they traded within other pubs where the landlord did not trade. To reiterate, there was consumer demand for ISDs, crime was normalised in both the pub and the local community, and traders felt they were unlikely to be detected because there was a culture of non-reporting and patrons acted as lookouts.

Stan only traded in his pub because he does not want/need to have many customers. In contrast, Walter's patrons commented that 'it looked like' he attracted enough potential PAB customers to not need to trade anywhere other than his pub. This is interesting because it suggested that Walter had a high consumer demand for PABs even though he had a small target audience (his patrons). My other OMTs felt the need to trade at multiple pubs and clubs, as they were profit-driven. Wayne and Bruce had few ISD customers at Joe's therefore they needed to trade elsewhere to make money. One similarity amongst OMTs' responses was they operated in pubs or clubs due to convenience: my OMTs

(including Ralph) sold within walking distance of their homes (see section 6.4.1) and Stan felt pub trading was 'no hassle'.

As with all illegal markets, when selling to strangers there was a risk that the customer might be a 'narc' (an undercover police officer) (Jacobs, 1996:360). I asked traders who sold to strangers whether they were worried about this risk:

Stan: *'Most of them are punters that come in the bar and have been for a long time'.*

Ralph: *'Yes always, constantly... You can't walk around the pub saying does anyone want one [PAB] coz they're strangers. You don't know who they are, they could be pigs [cops]. If someone is saying Sky is expensive, I say I know someone who knows a guy. Coz I am not gonna say I sell them coz I don't know who they are. Word-of-mouth is the best way to get business done. But hmm (long pause) you can usually tell the common folk [the working class] from the pigs [police]... there is always a suspicion that you can't trust people, but you can read them. Learn how to read people that's how you know who you can trust. It's all about body language!'*

Stan was not worried that his customers might be undercover police officers because he only sold to people in his pub, who were mostly regulars. As discussed in chapter five, his patrons were trustworthy as they had a culture in which they were generally unwilling to report crimes. Stan also reported that strangers were noticeable and if one approached him inquiring to buy a box this would be suspicious. He was arguably overly cautious, as new customers were often just students new to the neighbourhood or his pub.

I probed this question further to understand what, if any, RMS OMTs applied when selling to customers.

Ralph: *'By being street smart, sensible, and cautious about what you are doing... Like by using common sense, if things don't seem right, you get the fuck out of there'.*

Stan: *'Be very cautious and aware and make sure that customers aren't coppers enquiring to buy a box'.*

As Ralph sold to strangers, he reported that there was a risk that customers might be undercover police officers, but he continued to sell to them regardless because he needed the money. To minimise this risk, he was selective in his customer base and risk-averse in his selling behaviour. Similar findings have been identified in studies of street-level drug dealers who rely on being street smart, their instincts, and reading their customers' body language, to avoid detection (Jacobs, 1996).

Of the OMTs I spoke to only Stan and Ralph identified risks when trading ISDs and implemented strategies to minimise them. The others did not identify any risks or did not care so much about mitigating risk as they reported their priority was making money.

Lisa: *'Do you worry about getting caught?'*

Tom: *'No one is going to rat me out'.*

Arrow: *'Why would I? Everyone round here has one, no is going to snitch?'*

Taylor: *'You think people like us think about stuff like that? We don't, no need to'.*

These OMTs did not consciously implement any RMS. But some actions might be RMS even if they are not consciously seen as such; sometimes people might not see risk as existing because they are already being careful. As seen in section 6.4.1.5 traders operated within pubs and clubs where they did not worry about being reported because patrons had a culture where crime was normal and there was a culture of non-reporting. And they were unlikely to be caught by police as they rarely visited the area.

7.6 Risks when supplying to customers in closed markets

I now move on to unpick the risks CMTs and social network suppliers (SNS) encountered when supplying to customers. They operated within closed as opposed to open markets because they perceived open market trading to be too high risk. May and Hough (2001; 2004) also found that when trading within

offline drugs markets dealers' risk perception was a dominant reason for deciding on which form the dealing takes and trading within closed markets can be seen as an RMS. My CMTs and SNSs identified two characteristics of closed markets that offered them protection from being detected by law enforcement. One reason, as discussed in section 6.4.2, they only supplied to trusted individuals, thus mitigating the risk that customers could be undercover police, Trading Standards, or police informants. As well as individual CMTs and SNSs reporting this, Gareth and Allan (the only suppliers in my sample who worked for someone else – Anthony and Lee, respectively) also told me they did not supply to strangers because they were instructed to only sell to trusted individuals. Interestingly, some CMTs reported being aware that their profit margins were being restricted by only selling to their social networks.

Another reason was the private locations where transactions occurred. Several CMTs told me that they did not sell openly because they were concerned that someone could witness the transaction and then 'snitch' which could result in their arrest. CMTs' transactions occurred in different private places including the customer's or seller's house or the mutual workplace (section 6.4.2.3). SNSs' transactions occurred in pubs, workplaces, or at social gatherings at someone's house (section 6.4.3). Closed-market drug dealers also found that by only selling to trusted individuals and selling in private locations they can minimise the risk of being detected by law enforcement (Adler, 1993; May and Hough, 2004; Salinas-Edwards, 2013; Taylor and Potter, 2013; Venkatesh, 2008; Williams, 1989).

Interestingly, Gareth was the only trader in my sample allowing his customers to go to his house. He provided three reasons for this. Firstly, it was convenient for him because he rarely went to his local pub due to health problems. Secondly, he trusted that his customers would not report him because it was not in their best interest as ISD users. Lastly, operating in his house gave him the opportunity to show his customers how the PAB worked, which was essential to providing good customer service (see section 6.2.1). But there is an alternative explanation for why Gareth let customers go to his house. At the time they traded Gareth did not have any children or a romantic partner while my other CMTs did, I asked them why they did not trade from their houses:

Lee cheerfully said: *'It is a madhouse when I come home if mates did come [a]round, I don't know where they would sit coz the little ins [young child's] toys are everywhere'*.

Marcus frustratedly said: *'cause if it gets raided it's your house that gets raided. If you have a family, your family is in there. If it gets raided, the house gets ransacked to find the android boxes, drugs, or whatever. Who cares what the neighbours think? The neighbours are going to know what you have been done for!'*.

Traders with families, like Marcus, did not trade from their houses because they wanted to protect their families from police raids and they considered this to be more important than maintaining their reputations, amongst neighbours, as law-abiding citizens. Other traders, including Lee and Allan, explained that they were unable to have customers at their houses because they were too busy looking after Lee's young children (Allan's grandchildren). They also did not have anywhere for guests to sit. Additionally, Lee and Allan explained their rationale for not trading from their house.

Fieldnotes: It was too risky because if customers were caught visiting it would have attracted unwanted attention from suspicious neighbours. This may have resulted in them calling Crime Stoppers and leading to Trading Standards raiding their houses which may have led to their arrests.

At Joe's Tavern, Allan provided two cautionary tales to explain why he did not conduct business from his house (boxed-texts 7.1 and 7.2). Each case involved a neighbour reporting suspicious activity to Crime Stoppers which resulted in individual traders being arrested. This suggests that in some neighbourhoods it was likely that if traders did operate from their houses that their suspicious neighbours would call Crime Stoppers for the reward. ISD traders identified similar risks to those experienced by drug dealers, who often report that trading from their houses may draw unwanted attention from neighbours (Potter and Klein, 2020; Waldorf and Murphy 1995). In both cases, the identity of the informants remains unknown.

Boxed-text 7.1: The local brothel or maybe not

Years ago, in Allan's neighbourhood there were cars parked outside someone's house 'at all hours'. And it was always men getting out of the cars 'popping in' for about half an hour. There were dozens of different cars showing up every week, more than a couple every night. As only women lived there Allan and his neighbours assumed they were running a brothel. After a few months of this happening, the police raided the suspicious house and found that these women were selling drugs. Allan and his neighbours suspected that someone must have called Crime Stoppers, but they did not know who. They suspected it was someone living in their neighbourhood, because no one wanted what they thought was a brothel in their neighbourhood, especially when young children lived in there. Others at Joe's laughed as Allan reminisced because they lived in Allan's neighbourhood, and they also remembered this event.

Brody: 'If people in the street notice it is a lot busier at a house, they would think that something was going on, someone was selling stuff. That's how they caught the druggies that we thought was running a brothel. There was a lot more people going in, so I noticed and so did others.'

Boxed-text 7.2: Bob's story

Bob used to sell pirated DVDs in Springfield to people he trusted and to work colleagues. Around 2010, Trading Standards were informed that Bob was selling pirated DVDs, and they raided his house. They told Bob that they had received an anonymous tip. Many people I spoke to at Joe's Tavern, including Bob, suspected that someone had informed on Bob to Crime Stoppers for the reward. Allan voiced what most people thought:

'It was someone around [where Bob lived] that snitched, so they could get the Crime Stoppers reward. That's the only way anyone gets caught; someone shops them!'

Bob lived near Joe's Tavern.

7.7 Community culture as risk protection

As OMTs, CMTs, and SNSs operated within similar deviant communities, different aspects of their local culture helped to reduce their risk of detection. Some acknowledged this culture, but others did not. When I asked CMTs and some OMTs whether they worried about getting caught they explained they felt comfortable trading because they did not worry about detection due to any 'snitching'. This was because they operated within a community that had a 'market culture' (Sandberg, 2012) where selling illegal goods was socially acceptable (see section 5.1.2), where there was a code of honour against snitching, and where 'snitches get stitches' (Potter and Potter, 2020). In addition to these reasons CMTs and SNSs reported they did not worry about detection because they only sold to trusted individuals.

Expanding on my earlier discussion, this is likely an additional reason Stan only traded in his pub. Stan's patrons told me they 'turned a blind eye' to him engaging in illegal activity in his pub and would not inform on him as they feared the possible repercussions (from Stan and local violent criminals) and were generally unwilling to report crimes. And earlier Stan said patrons were unlikely to snitch on him for illegally streaming sports in his pub because it would spoil it for them (section 5.2). Stan was generally comfortable trading in his pub because

he felt there was a low risk of being reported, although Stan told me there was a risk that if patrons overheard him 'talking shop' with his PAB supplier then they may inform on him (section 7.3), suggesting Stan did worry about being detected due to informants. Stan was arguably being overly cautious.

In Springfield, my traders' social relationships with their local community heavily rely on trust, which comes in two forms. They trust that if law enforcement are in the vicinity, other people will act as lookouts (see section 6.4.1.5). And they trust each other not to snitch.

Fieldnotes summary: Some of the residents of Penny Lane explained that on several occasions, when a neighbour's property had been broken into, the police knocked on 'everyone's door' asking if they had seen anything. Each resident responded they had not, even if they had, because they feared the possible repercussions that they may receive for reporting local criminals to law enforcement. Interestingly, most of my contacts in Springfield reported that if they witness or have knowledge of a crime, they will not report it to law enforcement.

Shockingly, some ISD users alluded to potentially serious repercussions for anyone who talked to law enforcement about their 'guilty knowledge' (Adler, 1993) that is, having information about past or future crimes.

Mr. Parker: *'If you talk to the cops you are a snitch, bad things happen to snitches... I'm fed up. In the winter kids throw snowballs at my window. In the summer they throw stones... I can do jack shit about it coz you don't know who their parents are!'* When he said this, he looked scared and cryptically described how it was not worth being beaten up for reporting it.

In addition to the threat of harm, snitching creates a 'social stigma' (Sykes and Matza, 1957) for the individual and their family's reputation. The community would disapprove of and make them feel unwelcome.

Jessica: *'Ever since I was a kid, I was told snitches get stitches. A snitch is the highest form of dishonour, a snitch brings shame to themselves and their family. There is nothing worse than a snitch. Anyone who snitches is dead to me! Can't trust a snitch, once a snitch always a snitch!'*

When I probed further, my contacts in Springfield were reluctant to provide examples:

Vicky: *'To be honest I don't really wanna say'.*

James: *'Come on you don't need me to tell you what happens to snitches use your imagination!'*

Mr. Parker: *'Example erm, I can't think of any off the top of my head'.*

This culture was more widespread than I initially assumed, and existed in Beachland, among both locals and the student population at Stan's Place, as well as Springfield. This topic not only came up with several interviewees, but also during conversations at both pubs. My participants informed me that this culture also existed in the other pubs in which some of my OMTs operated. This demonstrated how widespread this view was amongst these deviant communities. If a person was labelled as a "snitch" or "grass" this identity carried clearly defined baggage within the cultural milieu of Springfield and Beachland. As Peter explains:

'If people think you are a snitch, it affects the way you live...Good things don't happen to people who grass. You would be scared to leave the house. You would be attacked; people would shout stuff at you. They would attack your house, they would go after you, your family, [and your] friends. You would not be safe. That is what happens with grasses'.

All my traders tried to avoid violence. When I asked traders whether they would beat up anyone for snitching they all responded no, explaining that violence or threats of violence would be bad business practice. For example, in his role as a trader, Stan would not threaten his ISD customers as he considered this behaviour to be poor customer service. But in his capacity as a pub landlord, Stan does employ violence by threatening and physically throwing undesirable individuals out of his pub (section 6.4.1.5). While my traders did not use violence themselves, they could not avoid violence completely because it was part of the local 'snitches get stitches' culture in which they operated. They said local criminals would retaliate against snitches, but they were reluctant to provide any examples of this happening (see previous quotes). This 'culture of violence'

associated with the stitches ethos was beneficial to my traders because it helped individual traders avoid having to threaten or inflict violence to prevent people reporting crime. This 'culture of violence' is more about threats than actual violence, and a culture of acceptance that if people did report crimes, violence would be an expected and legitimate response.

Despite people's reluctance to report crime because of the fear of violent repercussions, snitching still happens, as demonstrated in boxed text 7.1 and 7.2. The snitches in those examples were unidentified, so it is impossible to know whether they would have suffered consequences if local violent criminals knew who they were. This culture likely reduces the amount of informing that does happen (out of fear of the potential repercussions), but it is, of course, impossible to know.

There are alternative (but inter-related) explanations for why people are reluctant to report crime within these communities. One is a code-of-honour amongst this community where it is seen as immoral to report people to the authorities (regardless of any threat of violence). Then there is practical self-interest. Participants reported snitching would 'spoil it' for themselves and friends by stopping access to illegal streams. As Jessica said: 'Snitching would just be nasty and spiteful!'. Similar to cigarette smuggling, illegal streaming was viewed as a 'social crime' (Hornsby and Hobbs, 2007:553) in which neither traders nor consumers believe they are doing anything wrong. And similar to ticket touting, it is 'viewed more as a public service than as a crime' (Sugden, 2002:139). People do not report 'social crimes' or 'Robin Hood figures' because they are more on the trader's side than the police's side. My participants, as exemplified by Peter, have an us-and-them mindset.

Fieldnote summary: Them is the police, representatives of the state and 'greedy capitalists like Sky' whose purpose is to oppress and exploit marginalised groups to benefit the capitalist regime, us is the 'decent hard-working folk'. Participants referred to senior managers in their workplace as 'the big wigs' whose agenda was to exploit the working classes to make a profit. Workers being their 'puppets on a string'.

Crime, especially victimless crime, being normal and tolerated within these deviant communities also helps explain why these people were reluctant to inform on traders of illegal goods (see section 5.1.2). They did not see trading ISDs as wrong and did not want to get traders into trouble.

Another reason these communities did not report crime was because they believed police did not take them seriously (see section 6.4.1.5). Research shows there are over a dozen reasons why people do not report crimes to the police (Office for National Statistics, 2019), therefore participants may have had other reasons that they did not provide. Consequently, it is not possible to isolate a single factor to explain this. Regardless, all the reasons contributed to explaining why my traders were able to operate without detection.

7.8 Risks during communication with customers

After selling ISDs or IMS, the customer needed to be able to contact their trader in case there were any problems with their ISDs, which I assumed would involve exchanging contact details. I asked traders how they stayed in contact with their customers after the sale and what risks this posed:

Stan: 'No need to, any problems they know where I work, they can come and find me'.

Ralph: 'Customers get my burner phone number; I tell them any problems give us a bell'.

Again, this is another example of Ralph and Stan being risk averse when communicating about illegal activity by not using smartphones which they believed can be traced. Similarly, Walter explained his customers could find him at his pub every weekend so exchanging contact details was unnecessary. Apart from Walter, my other OMTs were less risk-averse than Ralph and Stan as they gave their customers their smartphone numbers.

Apart from Gareth, CMTs only talked to their customers about ISDs in person, either at work or at a pub, but this was out of convenience rather than as an RMS. Both Lee and Oliver reported that as they saw their customers at the pub or work there was no need to talk about business on the phone. In addition to convenience, Marcus added that he preferred communicating with his

customers in person because there was a possibility that law enforcement could be monitoring his conversations on phone calls or communications on social media. He held similar views towards electronic communication as Ralph and Stan.

Interestingly, Gareth was different from my other CMTs because he talked to his customers both on his mobile and in person at his house.

Fieldnote summary: As part of Gareth's role as a repairman he offered his technical expertise by phone. He did not believe the police would be listening to his calls because 'they have real criminals to catch'. But he explained that if police were listening, they would not hear anything incriminating as most of the time his customers were asking how to fix their android box and using one is not illegal. Gareth used his everyday phone, not a burner phone, to communicate with his customers.

This may seem unusual considering how risk-averse Gareth was in all other aspects of his trading. But as he did not believe he was under surveillance there was no need to implement strategies to mitigate a risk he did not see as existing. Gareth had an accurate understanding of the law as using streaming devices is not illegal.

Fieldnotes: I asked his customer Mr. Parker whether he used a burner phone when he contacted Gareth to request instructions on how to fix his PAB. He disapprovingly looked at me like I was crazy: 'A burner phone don't be silly we are not criminals or Jason Bourne [a character in a series of spy movies], who do you think we are?'. Gareth also reported that only 'real criminals' use burner phones – to have a burner phone could be suspicious and therefore actually increase risks.

Overall, my traders communicated with their customers face-to-face to advertise and sell ISDs, for most this was out of convenience for a few this was a RMS. Due to the rapid expansion of online marketplaces and the widespread availability of the internet on mobile phones, with the exception of street dealers, it has become increasingly rare for illegal drug dealers to communicate face-to-face with customers rather than via electronic communication (Aldridge and

Décary-Hétu, 2014; Barratt and Aldridge, 2016; Coomber and Moyle, 2017; Martin, 2014; Moyle et al., 2019). Therefore, it is likely that traders using face-to-face communication as a RMS has recently become uncommon.

7.9 Risks encountered by buyers and end-users

In addition to understanding risks related to trading ISDs, I also asked ISD buyers and end-users about their perceived risks. As I identified two types of traders based on where they sold, OMTs and CMTs, there are two corresponding types of ISD household buyers in my study: closed market customers (CMCs), and open market customers (those who purchased from open market traders). I aimed to understand why ISD buyers purchased from open or closed markets. Participants identified two areas of risk in the ISD market: when buying devices and when using them.

7.9.1 Risks when buying ISDs

Overall, there were few open market customers in my study. Some solely purchased from strangers at online markets because they did not know any ISD traders. Others were former CMCs. They purchased their first PAB from Marcus (a CMT) then when it broke, purchased their second PAB from an OMT online (e.g., Murphy, section 6.6.3) or from Roger's pop-up stall in a local shopping centre. They purchased from strangers because OMTs were offering lower prices than CMTs and Roger offered a repair service for PABs purchased from his stall.

I also asked open market customers whether they encountered any risks. Those who purchased from online traders identified the risk that the trader may be selling faulty goods, but 'it was worth it' (Murphy). In contrast, those who purchased from Roger's pop-up stall reported that their friends had recommended Roger, so they were not worried about whether he was selling faulty goods or an undercover officer.

Interestingly, most of my CMCs stated they did not purchase from OMTs because they perceived risks in purchasing from strangers. They worried strangers would 'rip them off' by selling faulty goods.

Ned: *'I got my box from the lad at work, he said any problems give us a bell. You wanna buy from someone that's been recommended. It is best to buy it off someone you know in case out goes wrong'.*

Dennis: *'Strangers? What if it didn't work, it's not like I can ask for my money back or ask for another box, I can't buy another box I'm not made of money'.*

Most of my CMCs preferred to purchase PABs from offline CMTs even though online OMTs offered a lower price. Some CMCs stated that purchasing from CMTs offered advantages such as being able to ask for a refund or exchange. Yet, this was an inaccurate assumption, because as discussed in section 6.6.3, some CMTs did not offer a refund or exchange for faulty goods, while some OMTs did. Studies of illegal markets have often found that it is safer to purchase from CMTs than OMTs because it is common for street-level retail drug dealers, for example, to rip off customers (Jacques et al., 2014; Jacobs, 2000).

Some CMCs identified a second risk in purchasing from strangers:

Monica: *'I'm a bit wary about buying from strangers what if they're pretending to be something there not!'*

Ned: *'I buy my box, my partners Gucci stuff, her GHDs from people that I know. I can't afford to risk buying from some back-alley dealer what if he is selling dodgy stuff, what if he's a cop?'*

These CMCs suggested there was a risk that a trader could be an undercover police officer. Interestingly, few CMCs in my study identified this risk. Some did not believe it was illegal to purchase an ISD, while others thought the police would have more serious crimes to investigate, and others commented that police 'go after' traders rather than end-users. Their assumptions were mostly accurate (section 7.10) and purchasing ISDs is illegal (section 2.2.6). CMCs minimised these risks by buying PABs or IMSs from trusted individuals.

The above risks are related to purchasing illicit products or services from strangers. There were also perceived risks when purchasing legitimate firesticks to be illegally modified. Lee, who offered IMSs for firesticks, identified a risk in

purchasing from legitimate retailers that he informed his customers about. On numerous occasions, I observed him advising his customers to purchase their firestick from a shop rather than buy it online, and pay in cash rather than by card. Lee warned them that if they paid by electronic payment, their name would be associated with the device, which would be problematic because if their Internet Service Provider (ISP) caught them accessing pirated content using the device, they could not use the excuse of 'it's not mine'. Several of Lee's customers told me this story and happily reported following Lee's advice, buying firesticks from shops and paying in cash.

CMCs identified similar risks when purchasing ISDs from strangers to the risks that traders identified when purchasing devices from strangers for resale (section 7.3): of being sold faulty goods and that the trader was an undercover police officer. Being sold faulty goods (i.e., PABs that did not work as advertised) when purchasing from strangers was also a problem identified by ISD users on the official Kodi Team discussion forum (Team Kodi cited in Andy, 2016), suggesting my users' experiences may have been common.

7.9.2 Risk when using devices

As using ISDs requires internet access there was a risk that end-users could be detected by their ISP while illegally streaming. This would be problematic because unauthorised streaming is copyright infringement (section 2.2.6). I wanted to know whether end-users had identified this risk and, if they had, what strategies they employed to mitigate it.

Fieldnote summary: While in Joe's Tavern, some of Lee's customers asked him about his IMS. They expressed concern in case their ISP found out they were engaging in digital piracy. One of Lee's potential customers (Dennis) spoke very cryptically: 'they wouldn't know what I am doing will they?'. Lee reassured his customers that even if they were detected by their ISP no action would be taken against them because 'everyone is doing it'.

Most of my end-users stated that when they first started using their ISDs (2015 onwards) they were not concerned about this risk because they had not heard of anyone who had received a penalty for illegally streaming, illegally downloading,

or using pirated DVDs. The belief that there was a low risk of prosecution for illegal streaming was accurate, both at the time I did the fieldwork and at the time of writing (2023). Even when cease-and-desist letters were introduced, which threatened users with penalties, the likelihood of receiving one was low. News reports showed that recipients of such letters were not formally sanctioned and were never taken to court (see section 2.2.6).

However, end-users' *perceptions* of the risks involved changed when cease-and-desist letters were introduced. When I asked them if they were worried about what would happen to them if they got caught, some informed me that they knew someone who had received a 'warning letter' for using their ISDs for watching sports without a subscription. For example, Bart reported that 'someone I know got a letter through the door'. Carter received such a letter himself: 'In the warning letter they threatened to switch off my internet which was bullshit as if they can do that!'. I probed this further to see how widespread this experience was. All respondents in one social group knew of Carter's experience.

Ned: 'It stopped [Carter]! I don't know of anyone else that got one. What happened was he was watching footy on his dodgy box, and he got a phone call saying you are doing something illegal. He said it's not me it must be my son upstairs I will tell him to stop. Then he got a letter'.

None of my participants knew anyone else who had received such letters, and these letters did not seem to be an effective deterrent on anyone other than Carter himself.

Interestingly, when Carter received his letter, he informed me that Marcus advised him to install a Virtual Private Network (VPN) on all his devices. Marcus also encouraged him to tell all his friends to do the same. This was kind of Marcus as it did not benefit him financially at all, but he did not want his friends to receive punishment for illegal streaming when he knew how they could avoid it. This apparent altruism also served as self-interest: Marcus was concerned his customers might snitch on him if they received a warning letter. Some of Marcus's customers installed VPNs as advised. Others did not because they did not know how to, or did not understand what one was or how it worked. Some ISD users

who used a VPN confidently stated that they did not believe they would be prosecuted for using their ISD:

Jessica: *'Nothing is going to happen to me for having a firestick with Kodi and that on, police have better things to do like catch real criminals!'*

Peter: *'They're not gonna turn off everyone that's got a dodgy sticks internet coz there would be hell on! The bigwigs would lose a ton a cash with nen customers, everyone has a dodgy stick [a]round here.'*

Some consumers exhibited strong anti-authoritarian attitudes when they heard about others in the news receiving warning letters for illegal streaming. This made them feel angry and bullied as they disliked being threatened. Peter: 'no one threatens me and gets away with it!'. Most consumers felt there was a low likelihood of action being taken even if they received such letters, as exemplified by Vicky:

'Everyone is doing it, what are they gonna do lock everyone up? Yer right, jails are full already, they're letting people out early!'

Brody: *'It is an empty threat!'*

These consumers were probably correct in perceiving a low risk of prosecution for using ISDs, as NETS considered the trade of ISDs to be a low priority (author interview with NETS). And to reiterate section 2.2.6, the Federation Against Copyright Theft (FACT) targeted suppliers rather than ISD end-users. In 2017 using VPNs became popular worldwide (Maxwell, 2017e). Subsequently, more of my ISD users and traders started using them.

Apart from Gareth, the ISD users in my study did not use any RMS to avoid being detected until someone they knew received a cease-and-desist letter for illegally streaming. This was unsurprising because some of my ISD users were unsure whether streaming subscription-based content without paying was even illegal because streaming was a 'new thing' to them. As discussed, since the Filmspeler judgement using ISDs is illegal (see section 2.2.6). But Gareth did have a sneaky way of reducing his personal risk:

'When I used to install Kodi onto android boxes for people... I didn't use my own Wi-Fi I use my neighbours. If they are stupid enough to not have a strong password that is their problem if the cops come knocking on their door'.

Gareth also said he used his neighbour's Wi-Fi when he started using a PAB (in 2015) to avoid getting caught by his ISP. His quote shows that he applied a 'victim-blaming approach' (Walklate, 2017): if his neighbour was detected, it was their fault.

7.10 Perception versus reality

Traders – and users - identified different risks. It is interesting to understand the likelihood of these risks happening, therefore the following discussion considers the risks my traders identified based on how they think law enforcement operates and compares them to how law enforcement actually operates. I did not have enough information from law enforcement to explore every risk that traders identified but I explored most of them. I have grouped the risks into four key themes: fears of undercover police officers; of snitches; of being under police surveillance and of products being seized by law enforcement.

The overall risk of being caught is real: ISD traders can be and are prosecuted (see section 2.2.5). These four types of perceived risks are all *actual* risks in the sense they could all potentially happen. But interestingly, the chances of them happening are usually quite low, apart from the third risk which is non-existent, because my NETS participant reported Trading Standards do not conduct surveillance work in relation to ISDs. Further, NETS and National Trading Standards (NTS) generally do not see ISD trading as a high priority. Representatives of these organisations explained that they have multiple crimes to investigate and ISD trading was just one of them. Investigating and prosecuting ISD traders is time-consuming and expensive. Seemingly, the police also do not see ISD trading as a high priority, as a member of NETS stated that the police often delegated their cases to them.

I began my interviews with members of Trading Standards by asking them about their role.

NETS: *'My team covers twelve local authorities, and we give additional service to [them]. We get given work by those authorities so they say "right, we have a problem here and we could deal with it but because it is cross-border we will give it to you to investigate". We [investigate] counterfeiting and trademark infringement...and we sit on top of the local authorities'*

NTS: *'Our role is to coordinate the activities of what local and regional teams do...and provide strategic guidance around counterfeiting and piracy. So, the team itself we prosecute online crime, it is mainly frauds that we deal with'*

7.10.1 Fears of undercover police officers

Traders that purchased ISDs from illicit wholesalers were concerned that their suppliers might be undercover police officers. The likelihood of this happening seemed low - Trading Standards told me they did not go undercover as wholesalers to detect ISD traders. Similarly, some traders were concerned that their customers might be undercover officers. This was a real risk for the OMT because Trading Standards do pretend to be customers and conduct test purchases.

7.10.2 Fears of snitches

Some traders were concerned that if they traded in public places this may lead to them being detected because of witnesses reporting them to the police, Trading Standards, or Crime Stoppers. My NETS contact reported they caught some traders (e.g., Thompson and Allan; boxed-text 2.1) because they operated in open markets, therefore there was some likelihood of traders, in general, getting caught if they did this. However, as my traders operated in communities where people were unwilling to report crime, the likelihood of being detected due to informants was low.

Lisa: *'How do Trading Standards catch traders selling ISDs?'*

NETS: *'It is mainly the businesses out there that provide the content because you would very rarely get complaints from the consumer because the consumer themselves knows that they are getting illegal content'*

NETS become aware of ISD traders when they receive complaints from content providers or cases to investigate from local authority Trading Standards or FACT. I probed further by asking members of NETS and NTS how ISD sellers get caught, other than complaints. They both stated traders were detected after intelligence gathering and making a test purchase. Then they will raid the trader's property to collect evidence for prosecution:

NETS: So, you are looking for boxes [and] computers that can download the software to amend them [the ISD]...postage receipts...[and] eBay and Amazon accounts'.

7.10.3 Fears about being under police surveillance

Ralph, Stan, and Marcus believed there was a high risk of being under surveillance when using electronic communications (e.g., being wiretapped by law enforcement) therefore they implemented strategies to reduce this risk when communicating with their customers. But most of my traders did not identify this risk. My NETS participant reported that they and the police do not put ISD traders under surveillance. Subsequently, the likelihood of ISD traders being wiretapped was extremely low.

Ralph also thought that if police confiscated his phone, they could read his deleted text messages or use his call history to see who he had talked to. Although NETS did seize mobile phones during raids for their forensic analysts to inspect, the two NTS forensic analysts I spoke with did not identify who was part of a trader's network based on data gathered from their mobile phones. Again, there was a low risk of this concern actually happening. But the analysts did say this was a practice used when investigating illegal traders.

As an RMS, Anthony (section 7.4.1) had several individuals operating in different towns in Northeast England illegally modifying and selling PABs for him. He believed that if one trader was detected there would be no evidence that they were part of a larger criminal organisation. Based on my interviews with members of NETS and NTS, Anthony's tactics would have been effective if his associates were caught, as long as there was no evidence on their computers or phones (e.g., software or incriminating exchanges on social media accounts) linking them to Anthony.

7.10.4 Fears about the product being seized by law enforcement

Some traders reported that if their storage location was detected (section 7.4), or if they kept sales records (section 7.3.1), this may lead to their arrest for the offence of selling ISDs. Interestingly, these were 'actual' risks; as the previous quotes demonstrate, when NETS raid a property, they look for evidence of illegality including ISDs or receipts of illegal purchases or sales. If traders kept records of ISD sales they could receive a confiscation order under POCA (2002), as other ISD traders have (see boxed-text 2.1). Marcus reported (section 7.4) that it is not possible to determine whether a device has been illegally modified just by looking at the device or the packaging. My NETS participant confirmed this: they needed to seize and test the device to determine this.

7.11 ISDs as a low-risk illegal market

There are some risks that are common in other illegal markets that traders report they worry about. Some of these risks did appear in the ISD markets I studied, and traders reported they worried about them, which have been discussed. Other risks did not appear and most of my traders did not see as existing. These include the risks arising from keeping a record (Moeller, 2012), the risk of being victimised by other criminals, the risk of a stop and search (Broadhurst et al., 2005; Salinas-Edwards, 2013) and the risk of violence (Hutton, 2005; MKG, 2007; Waldorf and Murphy, 1995).

Trust is important to counter risk for everyone involved in the ISD trade (traders and consumers). Trust between suppliers and customers is important for both traders purchasing from illicit wholesalers and end-users purchasing from retail ISD traders. Unsurprisingly, as it has been identified within illegal drugs markets my traders were particularly concerned that if they purchased from or sold to strangers their supplier or customer could be undercover police officers, other law enforcement officials, or confidential informants. To mitigate this risk my CMTs implemented the same RMS as closed-market drug dealers by only selling to trusted individuals (Broadhurst et al., 2005; MKG, 2007; May and Hough, 2004; Waldorf and Murphy, 1995; Pearson and Hobbs, 2001; Jacobs, 1996). My OMTs only purchased PABs from illicit wholesalers that they trusted. These themes have also been identified as important when researching illegal

drugs markets, having a good reputation is essential to being a successful trader (Moeller and Sandberg, 2019). Most ISD users were CMCs and they purchased from CMTs because they trusted them. Research on illegal markets has also shown that trust between buyers and sellers is an important characteristic, therefore ISD users are similar to consumers within other illegal markets (Von Lampe and Johansen, 2004a, b).

Operating within a community where members believed snitches get stitches helped minimise the risk of detection. For some this was a conscious RMS, for others it was not but it was a lucky coincidence. Some studies involving interviews with drug dealers in America have shown that street-level drug dealers do have a culture of 'snitches get stitches' which offers a form of protection against detection (Anderson, 1999; Clampet-Lundquist et al., 2015; Rosenfeld *et al.*, 2003; Venkatesh, 2008; Williams, 1989). However, these studies might be outdated or there might be generational differences because recent research shows younger drug dealers are willing to inform on each other to law enforcement without fears of repercussions while older dealers are not (Fadar, 2019; Urbanik and Haggerty 2018). The belief that 'snitches get stitches' has not been explored or identified in any recent studies of drug dealers operating within the UK, that I have read, which again suggests this culture might be outdated. But this culture was also held among the now defunct professional armed robbers and some gangsters operating in the UK in the 1990s (Fraser and Morton, 1995; Reynolds, 2011; Smith, 2005a, b). This suggests it may be relevant to serious criminality or as these studies are outdated, they may reiterate the view that culture might be outdated if it ever existed at all.

Arguably, the main reason the ISD trade posed fewer risks than the illegal drugs trade was because it was not a violent market while drug trading is (Ayres and Treadwell, 2023) which likely contributed towards law enforcement seeing ISD trading as a lower priority than drug dealing. Thus, they invested less time and resources into policing it. The ISD trade I encountered was not violent because there were limited profit-making opportunities for Organised crime groups (OCGs) to get involved. Another reason for the low policing of ISDs is likely that ISD trading investigations are dependent on public complaints, which are unlikely to be made because most people tolerate digital piracy (Industry

Trust, 2016). Arguably, a less salient reason ISD trading was a low priority for law enforcement was that it poses a lack of physical harm to individuals and society while drug dealing causes harm to both (i.e., the links between drug use and crime) (McSweeney et al., 2007; Welte et al., 2001). However, both markets cause financial harm to the economy when goods are purchased illegally instead of legally (FACT, 2017a; MKG, 2007).

8- The fall of the ISD market

The key finding of my master's study, conducted in 2015, was that the local pirated DVD market had ended and the ISD market had emerged (Potter, 2015). When I re-entered this field for my PhD study, in November 2019, I found that the ISD market was already waning. Subsequently, understanding why became an unexpected research aim. I observed the decline of this market, an interesting and important opportunity, as it allowed me to offer insights into the decline of illegal markets more generally.

Fieldnote summary: Over my final few months in the field, I did not see traders advertise or sell ISDs in either pub. My patrons who frequented other pubs also reported no longer seeing traders advertise or sell ISDs, and traders had not been replaced by other ISD traders. Meanwhile, traders were saying they were not doing this anymore as there was no longer a market for it. End-users were saying they had stopped using pirated Kodi and shifted to other illegal streaming markets.

As a result of technological developments, law enforcement intervention, and crime prevention strategies, by the time I ended my fieldwork (at the end of 2022) the ISD market had more-or-less disappeared in the towns of study. As a reminder from section 5.2, my participants reported that several pubs in Northeast England illegally streamed sports but when data collection for this study began, most had stopped. The landlords I interviewed had never been using ISDs they were and, as far as I know, still are using ISSs.

There is some evidence to suggest that at the national level, the market for Kodi multimedia player with illegal modifications installed (pirated Kodi) has gradually declined since May 2017 (Maxwell, 2020; Cook, 2022). In my study, ISDs had mostly been replaced by free pirated apps or ISSs. Evidence suggests this shift also occurred at a national level. Statistics show when there was a decrease in ISD users there was an increase in ISS users, suggesting people may have shifted from one illegal market to another (Graph 8.2, Cook, 2022).

This chapter aims to understand why the ISD market declined and then ended within the towns of study. This required understanding the supply and demand side from a micro-level – and then relating this to macro-level (i.e., national and

international) trends. From an economic perspective, markets emerge when there is supply and demand for a good or service (Arlacchi, 1998; Beckert and Wehinger, 2013). They grow (or shrink) if supply and demand increase (or decrease) and markets end when either or both have gone. The market emerged because there was supply and demand for ISDs and ended when there was no longer demand. Usually, within illegal (i.e., drugs) markets when individual traders leave, they are replaced by others (Adler, 1993). But this did not happen in the dying days of the ISD trade I studied because there was no longer demand for ISDs as consumers accessed streaming services in other ways.

8.1 Why did consumers stop using ISDs?

This section looks at why households stopped using ISDs from end-user's perspectives, and why fewer commercial premises illegally stream sports in Northeast England based on speculation from market participants. I did not have access to pub landlords who stopped illegally streaming sports to ask them this directly.

8.1.1 Why did ISD household users stop using their devices?

I asked ISD household users why they stopped using their 'dodgy box or stick'. Their responses fell into two categories: crime prevention strategies and alternative forms of streaming. Situational crime prevention looks at where the crime occurs rather than who commits it, focusing on environmental change that reduces opportunities for crimes to occur (Clarke, 2005).

8.1.1.1 *Crime prevention strategies*

Users reported that since 2017, they have been experiencing more problems than usual with pirated Kodi in its different forms. Some users reported stopping using ISDs because they could no longer get access to all the movies, TV shows and sports they wanted to watch as the number of illegal streaming sites they had access to had been significantly reduced.

I probed further to understand why users thought fewer illegal streaming sites were available. They reported sites showing movies and TV shows were regularly shut down by anti-piracy agencies or the FBI in America with a sign stating such. Football streams were being shut down by Premier League Blocking

Orders (PLBOs) (see section 8.3.2). They knew PLBOs were the reason because they informed me that they kept up to date with changes in football and related news and shared this via word-of-mouth with other football fans in their social circles. This made finding illegal streams that worked more difficult.

My observations supported my ISD users' responses.

Fieldnote summary: When I went to different consumers' houses in 2020, I observed that several pirated streams on their ISDs were not working. When they clicked on some streaming sites, there was a verbal or written announcement stating that the user was being denied access to the site because they were trying to watch pirated content.

Another reason users reported leaving was that since they started using their ISDs, there were fewer pirated Kodi add-ons that worked. The ones they usually used had permanently or temporarily stopped working, so they had to constantly find new ones. Some ISD users reported that when they asked their trader to fix their device, they were unable to.

Fieldnote summary: Lee explained to Dennis, 'there's nothing I can do on my end. It was the streaming sites that had been shut down, which has nothing to do with me. I only put Kodi onto the stick that lets you watch stuff for free'.

Some ISD users wrongfully assumed their trader ran pirated streaming channels and installed apps that provided access to such content, but they did not. Their confusion is understandable, as most were not techno-savvy.

My end-users were all using the same pirated Kodi add-ons therefore they would have all encountered the same problems accessing illegal streams. Consequently, it was unsurprising that they provided similar responses. Since 2017, accessing illegally streamed content has become more difficult because free pirated add-ons and free illegal streaming websites that pirated Kodi apps provided access to were being shut down and not being replaced. This was likely a result of action against streaming site hosts (shutting down the servers to the websites that provided illegal content). It was also very likely a result of developers that designed pirated add-ons for Kodi leaving the market and closing

their add-ons due to threats of law enforcement action and not being replaced (see section 8.3.1) (Maxwell, 2017o; 2018a; 2018d; 2018e; 2020). Fewer pirated app developers for Kodi led to fewer infringing apps being available, thus forcing pirated Kodi users to find alternative ways to watch pirated content.

A few users provided a different reason they ceased using ISDs: Kodi stopped working on their firesticks.

Fieldnote summary: On separate occasions, some of Oliver's and Lee's customers told me that the Kodi player was not working on their firesticks, so they took them to their trader for repair. Unfortunately, they were unable to fix it. Their trader informed them that Amazon had implemented a security measure on all their firesticks which stopped users from being able to access pirated Kodi.

The inability to bypass this security measure was also experienced by other traders.

Fieldnote summary: Jessica told me that when Lee could not fix her firestick, she gave it to Michael and then later to Paddy, but they were both unable to fix it for the same reason as Lee. But that was not the only reason, Paddy reported he was unfamiliar with illegally modifying firesticks because he only illegally modified android boxes.

This shows that Amazon's security measure was an effective prevention strategy as it stopped users from accessing pirated Kodi on Amazon Firesticks. But some pirated firestick (PFS) users just shifted to using 4K pirated android boxes (PABs) instead as pirated Kodi was working on there. Interestingly, none of my end-users stated they stopped using ISDs because pirated Kodi itself had stopped working. There are many alternative explanations the Kodi app stopped working on my users' firesticks, some relate to problems with the device itself (e.g., the device storage may have been full) others relate to the internet connection (e.g., the user's Internet Service Provider (ISP) may have blocked Kodi apps) which prevented the app from opening (Bischoff, 2022).

Interestingly, only one consumer (Carter) reported stopping using their ISD because they received a warning letter - but Carter was the only participant in my study who received such a letter (see section 7.9.2).

8.1.1.2 Alternative forms of streaming

As ISD household users were experiencing problems with pirated Kodi this raised the question of how they currently watch movies, TV shows, and sports. Respondents answered this in three different ways: most users shifted to using ISSs, others shifted to using free pirated apps (that did not require Kodi player) or visiting pirated websites directly, and others shifted towards paying for or sharing a legitimate subscription service. Few users stopped illegal streaming when they stopped using ISDs. Which of these three responses my former ISD users adopted largely depended on their age: apart from Tony, my youngest participants (under 25) only provided the third explanation (see appendix 4 for end-user demographic breakdown). For those over 25 there was some overlap between responses with some users providing a combination of two of these responses.

Fieldnotes summary: When I was at Joe's Tavern and Stan's Place from 2019 onwards, I heard users discussing the benefits of these legal or illegal streaming services and the problems with pirated Kodi. They described how an ISS provider offered cheaper prices than legal streaming providers and offered video content that was unavailable legally in the UK. Some ISD users did not shift to ISS until most illegal streams on pirated Kodi they usually used were not working while others shifted before this.

Consumers reported shifting to other forms of streaming due to problems they had begun to encounter with pirated Kodi. These problems resulted from law enforcement action and crime prevention strategies, suggesting a cause-and-effect relationship. ISD users reported pirated Kodi was unreliable while ISS providers were more reliable as they could guarantee streamed content.

As discussed, from a demand-side perspective, illegal markets emerge due to consumer demand for a product or service (Beckert and Wehinger, 2013) and suppliers' willingness to meet this demand. This perspective can also explain why these other forms of illegal streaming emerged.

Most of my ISD users shifted the way they accessed illegally streamed content from using streaming devices with pirated Kodi that provided free access to paying a trader for a subscription to an illegal streaming service (boxed-text 8.1):

Mr. Parker: *'Everyone has moved on to what the lad at work calls IPTV subscriptions'*.

Bart: *'When Kodi went tits up I went to some bloke on Facebook. He does a banging deal you get everything for a fixed price'*.

Bradley: *'No one is selling boxes no more coz everyone's paying some bloke on Facebook. You can watch owt you want Sky Sports, movies on at the pics, you name it you can watch it!'*

Boxed-text 8.1: Illegal subscription services market

Illegal subscription services (ISS) provide users with access to subscription video-on-demand (SVOD) content, broadcast premium satellite and cable channels, Freeview Television, and pirated content for a yearly subscription fee. The ISS traders that my participants knew of operated a Facebook account advertising their services. They had up to 50,000 subscribers. There has been a limited amount of information published about how the ISS market works; this is an area for future research (for exceptions, see Digital Citizens Alliance (DCA), 2020; European Union Intellectual Property Office (EUIPO), 2019).

My market participants heard about ISS traders from their friends or work colleagues; when people started using this service, they recommended it to others. To purchase access requires paying a trader on Facebook a set fee per year. Prices varied with some charging £50 for strangers or a reduced fee of £40 for friends via electronic payment and then exchanging contact information, via an encrypted messaging app, for the trader to send a code to the customer to access their pirated app. It also required installing other apps (e.g., a media player and Virtual Private Network, VPN) to enable access to his app on a

streaming device then entering a code. Users are assigned a username and password allowing access via one device, preventing account sharing.

I observed one ISS customer installing the app for the first time. Even though they were given instruction videos by their trader, shared via encrypted messaging, and they were tech-savvy it took them several hours to install it. They reported it was difficult to follow these instructions for someone unfamiliar with this level of encryption.

Due to the level of skill required to access ISSs there became a market for traders to offer a service which involved making payment to the Facebook trader on behalf of their customers then installing the ISS app onto their customer's device and charging them a service fee. This submarket became available because suppliers that ran ISS schemes were not offering this service. Most of my former ISD users and those they knew that had ISS used this submarket service rather than doing it themselves as they reported it was beyond their technical capacity: 'Encryption, VPN, media player what? You lost me at download an app!' (Mr. Parker) or it was too time-consuming: 'I don't have the time to mess around' (Oliver).

In recent years, the Federation Against Copyright Theft (FACT) has prosecuted members of several ISS schemes (FACT, 2020). This demonstrates there are dozens of suppliers in operation, not just one scheme supplying the whole country. Therefore, it is unclear whether the ISS users in my study were using the same ISS app offered by the same person or different people. Some of my service providers said their ISS trader had different pirated apps under different names using different servers, making it impossible to know. The supplier explained to Lee that a server can only handle so many users, so they need to be spread across multiple servers. If the cops shut down one server, then only some users will be temporarily unable to receive his content until he sets up and moves them to another server.

As one ISS supplier can have up to 50,000 subscribers and suppliers prevent account sharing, fewer ISS suppliers are likely in operation than the number of ISD traders when the pirated Kodi market was at its peak. ISDs were

mostly one-off purchases with no requirement for repeat customers (explored in section 6.3.2.2). In contrast, ISS suppliers have more opportunities for repeat customers as a household may want multiple subscriptions.

Some ISD users shifted towards using free pirated apps or visiting free pirated websites directly, which their friends had recommended using, as exemplified by Jade and Flora. There are two types of pirated apps: those designed specifically for the Kodi app and those designed for any streaming device. Some users stated pirated Kodi was not working on their firestick while other pirated apps were.

Jade: 'Me and the hubby like our footy so when the stick fucked up, we got [named free pirated football app] it has a shit load of ads but does the job'.

Flora: 'Now I use [named some websites] to watch my movies and [named different website] to watch my footy'.

Users said the problem with free pirated apps or websites is that they are 'full of ads' and some apps only give a set time of free viewing and then require payment to continue viewing. Due to the unreliable nature of free content, eventually all these users reported shifting to ISSs.

Some end-users reported that either they or their friends had purchased a Netflix or Amazon subscription and were sharing their friend's account, as exemplified below.

Elsa: 'Netflix had a good offer going so I took it. Kodi didn't have everything that I wanted coz I wanted to watch Money Heist it was on the stick, but it was in Spanish, so I bought Netflix (Elsa was referring to the infringing apps on Kodi; Money Heist is a TV show only available legally through Netflix).

Chad: 'Amazon is doing a deal. It's free for six months for students, [and] then after that it's half price, but I will cancel it before then, so it's free'.

Bradley: *'I've got Amazon, my mate's got Netflix, my sister has Disney, so we share accounts'*.

Netflix and Amazon disapprove of their subscribers sharing accounts with people outside their households arguing this causes a loss to their profits (Albanesius, 2015; ITV News, 2023). There is some evidence to support this (Industry Trust, 2016). Tony was the only participant in my study that reported he was not sharing his account with anyone when he shifted to Netflix: 'I got a good deal when I upgraded me Sky package, I got Netflix for next to nothing, a couple of pounds more a month'. Some former ISD users reported that they had shifted from using illegal to legal streaming services because the latter's price had become affordable.

As the pirated Kodi market peaked nationally in early 2017 (Maxwell, 2020), the question arises as why the local ISD market still existed a few years later when I studied it in late 2019. This mirrored the national situation (Maxwell, 2019e, f), with two main reasons explaining the lingering market and why some consumers had not yet shifted to ISSs. Some respondents had not heard of ISSs until their friends started buying one and recommended it. Others had heard of them but did not want to purchase an illegal subscription until their friends had used it for a few months and said it was reliable. A related reason was that some were waiting until their pirated Kodi add-ons had stopped working before purchasing an ISS. As Dennis said: 'if it ain't broke, don't fix it'. A different reason was that some were not comfortable online shopping or purchasing illegal goods online or from strangers.

My participants engaging in an illegal market years after its peak is not unusual: some were still purchasing pirated DVDs in 2015 although members of North East Trading Standards (NETS) stated they had not had any cases involving pirated DVD sellers since 2010. Some participants engage in illegal markets long after they have peaked, with living in poverty likely a contributing factor here.

8.1.2 Why pubs and clubs stopped illegally streaming sports

Contacts who go to public houses and clubs in Northeast England to watch football explained that some began to stop using ISDs or ISSs in 2017 and by

2019 few pubs were using them. Participants in Springfield reported that as far as they knew, by 2019 Joe's was the only pub in Springfield illegally streaming sports:

Allan: *'By season 2019-2020 [of the football] there was nen pubs round here using dodgy boxes well [a]part from [Joe's]. Premier League wiped them all out, arseholes!'*

Dennis: *'Years ago [named pubs in Springfield] they all used to do it round here but not anymore.'*

Murphy reported that another pub in Springfield (Schitts Peak) was also still illegally streaming sports, but only regulars would know that (see section 5.2). This suggests other pubs may still be illegally streaming sports, but only regulars would know. Similarly, most participants in Beachland reported that as far as they knew by 2019, Stan's was the only pub in Beachland that was illegally streaming sports:

Drake: *'I'm a big footy fan, round here there was a shit load of pubs using the dodgy boxes then the bigwigs at the Premier League spat their dummy out and the coppers started knocking on doors and fucked it all up.'*

Bradley: *'A few years back there was a canny few pubs in [Beachland] using dodgy boxes then when I got married only [Stan's] had one.'*

Interestingly, some patrons in Beachland told me that some pubs were still using ISSs in 2022. My sports-focused pub clientele in other towns (including Sandland) in Northeast England also reported experiencing the same problem, suggesting the decline was widespread across the region.

When I asked my sports-focused patrons in Springfield and Beachland why they thought fewer commercial premises were using 'dodgy boxes or sticks', their responses fell into three categories.

8.1.2.1 Crime prevention strategies

Some participants within both Springfield and Beachland reported PLBOs, which is a crime prevention strategy.

Johnny: *'I go to the pub to watch the footy. Premier League fucked it up for me a while back, some pubs couldn't get dodgy sports for a while coz they did something to it'.*

Mr. Parker: *'Here is something for your study the Premier League said it's blocked the sports on all dodgy boxes on something called the superblock. Google that... It hasn't though I can still get it on my stick! [Joe] has still got it!'.*

Others expressed similar views. Mr. Parker referred to the PLBO of 2019. Johnny referred to PLBOs in general. In 2017, 2018, 2019, and 2020 the Premier League obtained an injunction from the English High Court that enabled it to compel the UK's main ISPs to block unauthorized streams of English Premier League football in real-time delivered to the public via the internet (Maxwell, 2017f, 2019a; Ernesto, 2018a; Intellectual Property Office (IPO), 2017b:66). The injunction blocked high-level sources of illegally streamed live football before it reached the general public. 'The ISPs also monitored traffic from "pirate" servers requested by their customers' (Maxwell, 2017g).

Respondents reported that PLBOs had made it more difficult but not impossible to find illegal football streams that worked, they could still be accessed on ISSs with a VPN. Therefore, PLBOs could not be the only reason pubs stopped illegally streaming sports.

8.1.2.2 Law enforcement action

The second and third categories of responses referred to law enforcement action. Interestingly, a second category was due to an increase in the number of Trading Standards officers making unexpected raids to pubs and clubs, and telling them to stop illegally streaming sports and then handing out warning ('cease-and-desist') letters (see section 2.2.6).

Mr Parker: *'For years me, my brother and nephew used to go to [Brazzas's pub] and [the landlord] used to put the home game on and then the cops come in and said, "don't put the match on or we will be back". [The landlord said] "I am not putting it on coz I would lose my licence". We don't go there no more coz they don't have the match on.*

Some of my patrons in Springfield and Beachland had witnessed pubs and clubs being raided. Both Brazza's pub and Schitts Peak were raided and received warning letters, which resulted in Brazza's pub stopping illegally streaming, but did not stop Schitts Peak (see section 5.2).

A third category was respondents, including Murphy and Ned, who reported that some pubs and clubs had stopped illegal streaming since 2017 when they began to receive warning letters or heard about other pubs receiving them. They said the landlord had told them this was the reason.

Murphy: *'Pubs have stopped using dodgy boxes now coz they've been getting warning letters'*.

Ned: *'Most pubs don't bother now using a dodgy box because most pubs have already got a fine for it'*.

When pubs started receiving these letters, it was published in the media and spread via word-of-mouth. Patrons and landlords at Joe's and Stan's told me that 'it was in the news' that several pubs had been fined for using 'dodgy boxes' in Northeast England (Allan). In 2017 eight pubs in Northeast England were fined for illegally showing Premier League games (Muncaster, 2017). When I asked Joe and Stan about this, surprisingly even though they knew the risks illegally streaming sports in commercial premises entails this did not deter them from doing it. They reiterated (see section 5.2) their view that the benefits of staying in business outweighed the risk of losing their licence - and stated a VPN prevents them from being identified unless they were raided or someone snitched. The threat of law enforcement action had no impact on them.

8.1.2.3 Discussion

This discussion has shown three main reasons why there has been a decline in illegal streaming in public houses and clubs in Northeast England. Firstly, the use of PLBOs, secondly commercial premises were raided and thirdly receiving or hearing about other pubs receiving cease-and-desist letters. Some patrons provided one of these reasons while others provided all three.

It is difficult to conclude which reason was most likely to have deterred pubs and clubs from illegally streaming sports in general, because these approaches

occurred simultaneously. When multiple crime prevention strategies are implemented, one problem when evaluating their effectiveness is that when crime rates change it is not possible to isolate which strategy caused this change (Newburn, 2007). As shown, some pubs were deterred by these measures while others were not because some became more risk-averse in response. Joe's Tavern and Stan's Place did not experience raids or receive warning letters. As such, law enforcement action had no direct impact on them.

Arguably, from the available evidence, for pubs without a VPN, PLBOs are a more likely reason than raids or warning letters for this regional decline. From the 2016/17 football season to the 2019/20 season, each year the number of investigative visits Premier League conducted in pubs and social clubs in the UK decreased by one thousand or more, from 9,000 visits in 2016/17 season (IPO, 2017b:74), 8,000 in 2017/18 (IPO, 2018:76), 6,000 in 2018/2019, (IPO, 2019:108) and 4,500 in 2019/20 (IPO, 2020:92). Fewer raids suggests that either fewer commercial premises were illegally streaming sports or that less people were complaining about them, or investigating other crimes became more of a priority for law enforcement, or (as exemplified by Schitts Peak) commercial premises had implemented risk management strategies (RMS) (such as using a VPN) to evade detection. However, Trading Standards and Sky also conduct investigative visits to commercial premises, which may have offset the decline in Premier League visits, but their statistics were unavailable in IPO reports (2017b; 2018; 2019; 2020). Nevertheless, even if pubs were raided or receiving warning letters and did not cease what they were doing, PLBOs prevented access to some illegal football streams, forcing them to stop unless they could find alternative streams.

8.2 Why did traders cease trading?

I now move on to provide the reasons traders reported that they ceased trading. Two common reasons for this were competition from other streaming providers and fears of law enforcement action. Some traders gave explanations that were not common across my sample, such as finding an alternative source of income.

8.2.1 Competition from other streaming providers

Most suppliers of ISDs or illegal modification services (IMS) in my study ceased offering their products or services due to competition from other illegal streaming providers, whether this was ISS providers or pirated android box (PAB) traders. When I asked suppliers why they left the market and whether they would ever resume supplying, most expressed similar views to Ralph and Stan:

Ralph: *'Because the market died down, everything was pretty much online anyways... There isn't a market anymore. Couple of years back everything became accessible online. I got less and less customers. You can watch stuff on free movie sites [he listed some]. There's also some bloke on Facebook [he] charges 40 quid a year, you get all the sports channels.'*

Stan: *'Too risky for the business, for my position in the business, being a pub landlord... There isn't much of a market for it. It is not worth the risk. The websites have got easier to find and use now. All you have to do is type free movies and lots of websites come up. And loads of people are going to the guy on Facebook he does everything for a set price.'*

A common response amongst traders was that there was no longer demand for ISDs as a direct result of users changing the way they accessed pirated content. Most traders reported their customers had shifted to using ISSs with only a few had yet to make this shift. All four of my social network suppliers (SNSs) provided the same reason for stopping offering their IMS. Michael explained: 'All my pals had Kodi and that on their boxes. They use [named some illegal streaming websites] now they don't really use Kodi anymore'. Similarly, Aria told me that her brother provided IMS for android boxes amongst his social network 'until everyone had one' and that they had moved on to visiting illegal streaming sites directly.

Marcus and James also stopped trading PABs due to competition. As they stopped selling PABs before the other ISD traders in my study, they provided a different reason for ceasing trading.

James: *'Some cheeky bastards started selling on eBay for less than I could get them for and in some dodgy stall [in a nearby town]'*.

Marcus: *'I stopped selling fully loaded boxes coz people started to sell them on eBay for cheaper than what I could buy them for. [Some of my former customers] bought their box from some stall in [a nearby town] for £45. The boxes were quite pricy to buy when I was selling them...More people started selling coz more people had heard about them and wanted one'*.

Marcus's customers confirmed his story, as discussed in section 7.9.1. They told me that when their PAB broke, they purchased their second PAB from online traders on eBay for £35 or from Rogers pop-up stall in a local shopping centre for £45.

One reason Marcus and James entered the PAB market was because of a gap in the market (see section 6.3.2). However, they ceased trading when they started receiving competition from online and offline traders. Demand for PABs increased as more people heard about their benefits. Consequently, more traders started selling, thereby increasing competition for existing traders. Marcus and James could not compete with other traders selling PABs for a price lower than they could purchase them for.

8.2.2 Perceived risk

Some traders left due to the indirect fear of law enforcement rather than directly experiencing it. Few traders left the ISD market solely because they began to perceive it as being too risky, only Gareth and Anthony provided this reason. Gareth: 'We stopped when we found out that people were getting sent to prison just for selling dodgy boxes, it's too risky it's not worth going to prison over'. Gareth reported hearing about cases from the news but did not specify which. As a reminder from section 2.2.5, several ISD traders had received custodial or suspended sentences. Gareth and Anthony's perceptions of the risks changed upon hearing about these cases. Understood from a rational actor perspective, when things became 'too risky' they ceased trading, with the perceived increased chance of a potential custodial sentence outweighing the financial benefits of continuing.

Interestingly, as Stan is a pub landlord, he offered an additional explanation to competition to explain why he ceased trading. We saw earlier that

Stan worried that he could lose his job if caught trading PABs. He felt that the risks involved in PABs had increased since he started trading and he no longer perceived the financial benefits to outweigh the risk of losing his job. Stan did not quit entirely or directly because of law enforcement action. Rational choice theory can be applied to Stan as he conducted a cost-benefit analysis.

As demonstrated in section 7.1, most of my traders did not believe they would get a custodial sentence if caught and therefore were not deterred by this threat. But because Anthony was part of a criminal network and his enterprise sold more PABs than my other ISD traders, he was more likely to receive punishment if caught.

8.2.3 Other reasons for ceasing ISD trading

Some traders provided different reasons for stopping. For Zack, it was moving into a more lucrative market:

Fieldnotes: Chad (Zack's customer) told me that Zack no longer traded PABs. I asked why. [Zack] is now a full-time drug dealer. He sells to kids. He is dead to me. I don't want to talk about it'. During this conversation, Chad seemed very frustrated and walked away. On a different day, I asked Chad this question again and he gave the same reaction. I did not ask again as I did not want to upset him.

I do not know for sure why Zack left the ISD market, but it seems likely that he found drug dealing more profitable than selling PABs. For Lee it was also moving into a more lucrative market, the ISS market (see below). Walter also left because of a more lucrative source of income. Monica, a patron at Walter's pub, told me that he stopped selling PABs in his pub when he 'won a small fortune on the lottery and moved [abroad]'.

8.2.4 After the ISD market

I do not know what activities all 21 suppliers in my study are doing at the time of writing (2023) because I am no longer in contact with some, and others were based on second-hand knowledge from people I am also no longer in contact with. Some traders moved into other illegal markets to replace lost income: Zack remains a drug dealer; Porn Star remains a trader who 'would sell

anything that he could get his hands on'. Interestingly, some of my ISD traders shifted into the ISS market, offering a service that involved purchasing an ISS then installing the pirated app to access this service onto their customer's devices for a service charge (boxed-text 8.1). There was demand for this because ISS users in this study were not techno-savvy. Lee entered this market charging £10 per device, targeting the same clientele as he did when he offered IMS for firesticks and Allan continued to assist Lee in building his customer base. Wayne and Bruce also shifted to this market charging £20 per device and targeting the same clientele as when they ran their ISD businesses. Unsurprisingly, some ISD traders reported they did not make this shift because it requires knowing an ISS trader. Other traders (e.g., Ralph, Stan, and Marcus) informed me that they did not shift to providing ISSs because they were uncomfortable with electronic payment methods and communicating with others about criminal activity using electronic communication. Their discontent with using devices that they believe can be monitored by law enforcement was explored in chapter seven.

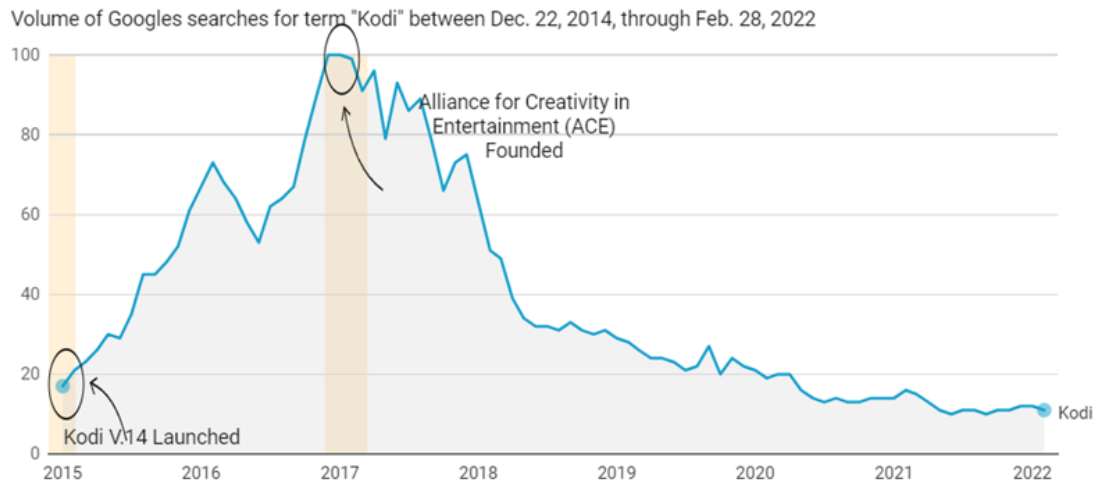
After they ceased supplying ISDs or IMS for some suppliers, including Ralph, Stan and SNS, as far as I know that was the end of their criminal careers. When Walter won the lottery that was the end of his criminal career. As Gareth was part of Anthony's criminal network when Anthony ceased trading, as far as I know, that was the end of Anthony and Gareth's criminal career.

8.3 Macro level factors that led to the decline of the ISD market

The micro-level reasons the ISD market declined are a result of macro-level factors. The decline of Kodi piracy was not isolated to the towns of study. Cook (2022) analysed Google Trends data worldwide from December 2014 to February 2022 and found that interest in the search term 'Kodi' peaked between February and April 2017, falling around 85 percent from May 2017 to February 2022 (Graph 8.1). They argued that the decline was a direct result of the action

taken against piracy by the Alliance for creativity in Entertainment because when this formed the number of searches for Kodi began to decrease.

Graph 8.1 Kodi search term



(Cook, 2022)

The problem with Google Trends data is that it only shows the number of searches for a term. It does not show the number of users that downloaded Kodi multimedia or whether they used it for legitimate or piracy related reasons. Torrent Freak suggests that fewer searches for this term show a decline in Kodi multimedia player being used for illegal streaming because users likely searched for it to download it (Maxwell, 2020). The Kodi Team (the creators of this player) support this view, and also reported that interest in using their player for illegal streaming had decreased since 2017 (Maxwell, 2020). This raises the question of what happened from 2017 onwards that led to this decline, or was action already underway before this date?

I intended to explore why this decline occurred from Trading Standards' perspective. But interestingly, when I interviewed them in 2020 they did not report a decline had occurred. When I asked a member of NETS whether there had been any changes in the ISD market, they responded: 'we've not had an active investigation for two years now [on suppliers of ISDs]'. Both NETS and National Trading Standards (NTS) reported they did not have any information suggesting that the ISD market had declined. Arguably, the lack of cases suggests that the ISD market had declined at a regional level, or traders had become more

successful at avoiding detection, or there were fewer people reporting complaints. An alternative explanation is that the ISD market had become even less of a priority for law enforcement (cf. section 7.10), resulting in fewer investigations.

While members of Trading Standards (in interviews) and the government (in their IPO reports) did not state the ISD market declined, other sources did. An analysis of Torrent Freak blogs (DCA, 2020; Ernesto, 2018a; Maxwell, 2015c, d, 2016a, e, 2017a, c, d, h, l, f, g, m, o, 2018a, d, e, 2019a, e, f, 2020) and, FACT (2017a) and IPO (2017b, 2018b, 2019, 2020; EUIPO, 2019) reports suggests contributory factors across three broad categories: law enforcement action (including legislative and policy changes), crime prevention strategies against the ISD trade or more broadly illegal streaming, and the rapid expansion of other illegal streaming markets that provide alternatives to Kodi piracy. The following discussion presents a timeline of key events under these three broad themes. It shows that since 2015, different technological, legislative, and policy changes have contributed to the national decline of the Kodi piracy market.

8.3.1 Law enforcement activities

The rapid expansion of illegal streaming, particularly via the ISD market, drew the attention of anti-piracy agencies, law enforcement agencies, copyright holders and broadcasters (Maxwell, 2017h). One explanation for the Kodi piracy market declining in the UK is due to different measures which have been put in place at national and international levels by these agencies to deter people from supplying or viewing illegally streamed content (IPO 2017b, 2018b, 2019, 2020; Easton, 2022; Maxwell, 2017a). This law enforcement activity comes in three forms: cease-and-desist notices, increased policing leading to arrests and prosecutions, and raising awareness through publishing in the media that illegal streaming is a crime, and that those involved have received custodial sentences or warning notices.

8.3.1.1 Cease-and-desist letters

Action has been taken against actors at different stages in the ISD and ISS supply chains at a global level in the form of cease-and-desist letters. Such letters have been served to those who host the servers for illegal streaming sites (FACT, 2017a; Maxwell, 2017d), developers of infringing apps (Maxwell, 2020),

ISD traders (Maxwell, 2016e) and end-users (Express, 2021). These letters aimed to deter the recipients from continuing their illegal activity.

Since June 2017, legal action began to be taken against developers of infringing add-ons which resulted in them gradually leaving the market and closing their add-ons (Maxwell, 2020; Cook, 2022). When Torrent Freak interviewed them, they found that developers ceased operations either due to legal action or fears of possible legal action and some of these individual developers were not being replaced (Maxwell, 2017o;2018a;2018d;2018e;2020). This demonstrates such letters were an effective deterrent against this group. Interestingly, this action mostly occurred outside the UK. Since June 2019, UK organisations have begun taking legal action against infringing Kodi add-on developers, including arresting them (Maxwell, 2019 b, c, e, f).

As described in section 2.2.6, action has also been taken against household users of illegal streaming sites, including ISD users, in the form of cease-and-desist letters. Members of law enforcement attempted to raise public awareness that users of illegal streaming sites could receive warning notices by publicising in the media how many they had issued so far. At the end of 2020, more than 7,000 UK households received letters from the police after their broadband providers found that they were accessing illegal streaming services to watch copyrighted material for free (Express, 2021). This high number suggests the police were taking digital piracy seriously.

Whether the threat of law enforcement action is an effective deterrent is questionable because it assumes the user is a rational actor. To test the effectiveness of cease-and-desist letters researchers could interview recipients and ask whether it did stop them from illegal streaming. But to rule out other factors, researchers must ask whether other factors contributed to them ceasing illegal streaming. As noted earlier, this deterrent action had a limited impact on my ISD household users and pub landlords.

8.3.1.2 Increased policing

Another form of law enforcement activity was the increased policing of ISD traders and developers of pirated Kodi add-ons which led to arrests and prosecutions. The distribution of ISDs became a 'risky business' when anti-piracy

agencies began to target ISD traders operating within the UK. In 2015 FACT's main target within the ISD market was the sellers (Maxwell, 2015d). As identified in section 2.2.5, since June 2015 ISD traders in England began to be arrested and later prosecuted therefore there was an increased policing of ISD traders. Some traders received suspended or custodial sentences while others received cease-and-desist letters (Maxwell, 2016e).

Interestingly, on numerous occasions, the head of FACT stated that when ISD traders get custodial sentences, this penalty is intended to deter other traders (Easton, 2022; Maxwell, 2017a). However, even they acknowledged it would not deter everyone. Deterrent sentencing is problematic because it assumes traders are rational actors who weigh up the benefits and risks/harms before engaging in crime. Rational actor approaches to offending and its problems were explored in section 3.4.

Other action included when FACT began to work with the organised crime unit, PIPCU, Trading Standards, copyright holders, broadcasters, and the local police to investigate cases involving ISD traders, this multiagency approach led to an increased policing of the ISD trade (Maxwell, 2015c; d, 2016; FACT, 2017a). In the past FACT received complaints about illegal streaming from the Motion Pictures Association of America but since 2017 it also began to receive complaints from the Premier League, Sky, BT Sport, and Virgin Media, and FACT investigates cases on their behalf (Maxwell, 2017c). More complaints create more investigations therefore leading to increased policing of ISD traders. A significant increase in the number of arrests or seizures does not mean an illegal market will decline as research shows this simply means without such action the market would expand (Dorn et al., 2003:349).

Members of law enforcement attempted to raise public awareness of their increased policing, particularly news that traders have received custodial sentences, via the media. This action had a limited deterrent effect on my traders; only two traders in my study ceased trading solely due to fears of receiving a custodial sentence (section 8.2.2). As described in section 7.1, most of my traders did not believe they would get a custodial sentence, so this did not deter them.

8.3.1.3 Raising public awareness

To a certain extent, raising public awareness of the legislative framework surrounding illegal streaming may have contributed to declining sales and use of ISDs in England. As a reminder, in 2017 when the CJEU in the *Filmspeler* case declared the sale and use of ISDs illegal, this was widely publicised in newspapers in England (Maxwell, 2017i; see section 2.2). Traders and end-users of ISDs in England are unlikely to know that the law is different in England and Wales than in Europe. This is because the public's knowledge of the law usually comes from the media (Jones, 2017). Subsequently, when they became aware of this legal clarity, their perception of the law surrounding the trade and use of ISDs may have changed. They may have been rational actors and thought if engagement in the market is illegal there is likely to be a punishment and subsequently ceased their involvement due to fears of the penalty. However, categorising unauthorised streaming as copyright infringement is unlikely to deter digital pirates as piracy has occurred for decades. Hearing that the trade and use of ISDs are illegal did not discourage my end-users from illegal streaming nor did it stop my suppliers from trading.

8.3.2 Crime Prevention Strategies

Another factor likely contributing to the national-level decline of the ISD market was crime prevention strategies against the ISD trade or illegal streaming more broadly. Different approaches to crime prevention draw on a rational actor framework (Newburn, 2007). They assume that when there is an opportunity for crime (e.g., illegal streaming) to occur it will, and that traders conduct a cost-benefit analysis before engaging in crime.

One crime prevention approach is to increase the penalties for engaging in crime, so the rewards are no longer worth the risks (Newburn, 2007). The Digital Economy Act (2017) increasing the potential sentence for ISD traders to up to 10 years imprisonment is an example of such an approach. The threat of an increased penalty was an effective deterrent on a few closed market traders (CMTs) (section 8.2.2) but it was ineffective on some open market traders (OMTs), as they did not fear punishment (section 7.1).

Another approach, PLBOs, targeted suppliers of illegal football streams, which is the group that stores or runs the servers to stream illegal video content. In a remarkable display of effectiveness, the Premier League removed or blocked almost 200,000 live streams and over 360,000 clips of its matches in season 2017/18 and again in season 2018/2019 (IPO, 2018b:26; 2019:108). The logic behind PLBOs is that if illegal football streams were blocked at the source, then users would be unable to watch it (author interview with NETS).

PLBOs had a limited impact on the illegal streaming of Premier League football because this approach has two main problems. It assumes ISPs can monitor their customers' internet activities, but they cannot if their customers use a VPN. It also assumes there are a small number of illegal streams of football, but there are many. When one site was blocked another appeared (Maxwell, 2017m). This policy had a limited impact on my ISD household users and had some impact on some pubs that illegally streamed football in Northeast England.

8.3.3 Other Illegal Streaming Markets

There is another reason Kodi-related piracy declined in the UK beyond law enforcement action and crime prevention strategies; arguably it was replaced by other streaming markets with users shifting from pirated Kodi to other streaming options. Some may have returned to 'downloading from sites like **"ThePirateBay"**', while others entered the new piracy market of ISSs or used free non-Kodi pirated add-ons (Cook, 2022). My research supports this. In America, since 2019, there has been widespread availability of other forms of illegal streaming including non-Kodi free streaming apps and ISSs (Maxwell, 2020; DCA, 2020). This is also likely to apply to the UK and Europe, as these piracy options are also available in these countries (EUIPO, 2019). Statistics relating to ISSs are unavailable for the UK, but statistics in America show that since 2019 this market has rapidly expanded. In 2020, statistics show that '[ISSs] generate subscription revenues of \$1 billion annually in the U.S. alone...[with] an estimated 9 million fixed broadband subscribers in the U.S. use a [ISS]' (DCA, 2020).

Some evidence suggests that, at a national level, pirated Kodi users may have shifted to using either free or subscription-based pirated streaming services.

The term IPTV is wide-ranging as it covers both legal and illegal, free and subscription-based streaming sources. Graph 8.2 shows the number of searches for IPTV and Kodi in the UK using Google Trends from 4/1/2015 to 1/4/2022. It shows that interest in IPTV began to increase in May 2017 at the same point interest in Kodi began to decrease. It also shows that interest in Kodi in the UK decreased by half from May 2017 (66) to March 2018 (31).

Graph 8.2 Kodi and IPTV searches in the UK

Key: The dark blue lines represent IPTV, and the light blue lines represent Kodi.



Chart: Potter • Source: Google Trends • Created with Datawrapper

(Potter, 2023, using Google Trends)

8.4 Discussion

This study did not aim to test the effectiveness of policies to deter illegal streaming. It is impossible to know which approach (law enforcement activity or target hardening) was most effective at deterring ISD traders and end-users and leading to the decline of Kodi piracy in the UK as they are inextricably linked. But arguably, it was when either approach targeted the top (e.g., the servers that supply illegal streaming websites and developers of pirated Kodi add-ons) rather than the lower stages of the ISD supply chain. In theory, closing illegal streaming sites *should be* the most effective way to prevent Kodi piracy and broader illegal streaming because it prevents access to everyone below it. However, in reality it is not because they are generally quickly replaced by new ones, and arguably, law enforcement closing them has led to an overall increase in the number of them. This was partly because some criminals have multiple servers in multiple

locations worldwide; if one is shut down others will still run. Furthermore, a few suppliers do not control the market; multiple criminals supply these streams; if one is arrested another will replace them (author interview with NETS).

The main criticism of situational prevention strategies is that they do not prevent crime, they merely displace it from one place to another (Newburn, 2007:296). My research shows that crime displacement occurred when illegal streaming sites on pirated Kodi were shut down, as my household users merely shifted to a site that worked. Then, when most of their regular streaming sites closed, they shifted from free pirated sites to ISS that could guarantee streams that worked. Similarly, research shows when law enforcement shuts down established online drug markets this leads to a proliferation of drug markets as multiple new markets appear to replace the closed ones and the sellers relocate to other drug markets to continue trading (Ladegaard, 2019). Another example of this crime displacement effect is Cryptomarkets. Before being closed by the FBI the Silk Road was considered the largest online illegal market of its time (Ormsby, 2014); after being closed dozens of Cryptomarkets emerged to replace it (Aldridge and Décary-Hétu, 2016). 'Hot spot policing in cyberspace might produce temporary results, but is arguably ineffective in the long run, as actors use information and communication technology's unique capacities to reorganize' (Ladegaard, 2019:113).

9- The end: Conclusion

This chapter summarises my key findings and explains what they add to our understanding of this market – and to illegal markets more generally. It also considers this study's limitations and offers recommendations for future research.

Since its emergence, the ISD trade has been a focus of debate amongst policy makers, the UK government, law enforcement agencies, the media, and the public as illegal streaming became a new way to engage in digital piracy (Federation Against Copyright Theft (FACT), 2017a). Law enforcement agencies were particularly concerned about the rapid expansion of the ISD trade due to the belief that organised crime groups (OCGs) are involved (Forster, 2015; Intellectual Property Office (IPO), 2015; 2017b; FACT, 2017a).

This research set out to understand the market, its structures, and its participants, from the perspectives of both traders and users. With no previous criminological research on ISD markets, this study has helped fill a knowledge gap by understanding the retail ISD market within two towns in Northeast England. The findings and conclusions of this study were based on ethnographic methods and research on multiple sides of an illicit market. This study has provided an insider's perspective into ISD operatives' trading practices, the risk management strategies (RMS) that buyers and sellers employ to avoid detection, and their reasons for entering and then, later, leaving this trade.

A key finding was that this market was already declining. Regardless of whether this specific market will continue or not, there are theoretical, policy, and methodological lessons that apply to researching other illegal markets, and other areas of criminology. In general, this is a study of deviance, crime in poor areas, and criminal careers, taking (sometimes implicitly, other times explicitly) a rational actor approach to analysing criminal involvement.

Chapter five sought to understand the actors involved in the ISD market. It set the scene by describing the research sites, the local culture, and the demographics of my market participants. The demographics of my Beachland and Springfield participants were similar. In both towns, the ISD trade was dominated by white working-class men. As access to my group stemmed from my working-class background, participants' demographics might be a result of my

sampling technique rather than a reflection of the characteristics of the ISD market. Or it might be - and this seems more likely - that working class men dominate in these roles as a reflection of broader gender roles in these socio-demographic/cultural contexts (Ancrum and Treadwell, 2016; Hobbs, 1995; Fraser and Hobbs, 2017). There were interesting differences between my traders in their criminal career histories. Open market traders (OMTs) were more likely than closed market traders (CMTs) to be involved in multiple illegal markets.

This study was conducted within two pubs (Joe's Tavern and Stan's Place) that used ISSs, in two different towns. There was one main difference between these pubs. Joe did not trade ISDs because he was scared to compete with local criminals for customers. He allowed others to trade within his pub because he was scared to refuse them entry in case they were affiliated with local violent criminals. Stan sold ISDs within his pub even though he knew he might be competing with local criminals. He was able to stop others from trading within his pub due to his violent reputation. Both landlords' motivations for using ISSs were the same: to save money and attract sports-focused customers.

Chapter five also explored the rise of the illicit market. The ISD market within the towns of study emerged, in market terms, due to supply and demand dynamics. There was demand for ISDs, and suppliers responded to this demand. In criminality terms, the market emerged because people (especially suppliers) weighed up the costs and benefits and saw benefits in becoming ISD traders. ISD market participants can be understood from a rational actor perspective in both framings.

Consumer demand within illegal streaming markets is interesting because it differs from other illegal markets. Illegal markets will emerge if there is no legal market for the products/services offered or if the goods/services on the illegal market are cheaper than the ones on the legal market (Beckert and Wehinger, 2013). ISD and ISS users reported both motivations, while in most illegal markets consumers only fit one (see section 5.6).

On the supply side, traders entered the ISD market because after weighing up risks and benefits they believed the benefits (primarily financial, but with aspects of altruism being important drivers for some market participants) outweighed the risks (potential criminal sanctions and a risk of violence). They

aimed to mitigate those risks where they could or considered them acceptable. Some viewed it as a profitable low-risk activity, with little risk of detection or receiving a custodial sentence. They held these views mostly because there had been a lack of arrests and prosecutions of ISD traders, and they perceived the ISD trade as a low policing priority (section 7.1). However, considering the amount of RMS Ralph and Stan had implemented (chapter seven), not all traders felt that ISD trading was a low-risk activity.

My study supports Beckert and Wehinger's (2013) view that, in contrast to legal markets, conditions other than supply and demand must be met for an illegal market to emerge. By applying techniques of neutralisation (TON), traders and end-users were able to justify and disregard any moral judgement attached to the ISD trade because (some types of) crime is normalised in their local socio-cultural setting. Both suppliers and end-users were willing to take on any risks from law enforcement that the ISD trade posed. For most market participants the ISD trade being perceived as a low-risk activity contributed towards them entering it.

Chapter six sought to describe how the ISD retail market was structured. I produced a detailed description of how suppliers ran their illicit schemes, including how they chose their customers and decided where to sell. The ISD trade takes different forms. There were some important differences between my retail suppliers, which can be broken down across four key dimensions in which differences were observed. The first dimension included what was being supplied: products (i.e., pirated android boxes, PABs or pirated firesticks PFS) or services (i.e., illegal modification services, IMS).

The second involved how suppliers were organised. I identified three structures: sole traders, partnerships, and criminal groups. Most of my sample were sole traders with none of the links to OCGs that FACT (2017) claimed were typical of the ISD trade (i.e., conducted by people working together). Although small criminal groups (e.g., Anthony's scheme) also exist within the ISD trade, they do not fit the degree of organisation/OCG involvement implied in the policy statements. In response to FACT's claim, arguably the discussion should be whether the definition of OCG is in any way useful rather than whether there are groups that match this definition. This debate often arises when law enforcement

claims OCGs are involved in illegal markets (Hobbs, 2013; Von Lampe, 2016; Hornsby and Hobbs, 2007).

The third involved suppliers' differing motivations. I identified three types here: suppliers who were only motivated by profit, primarily profit-motivated but with a secondary altruistic motivation, and non-profit suppliers with entirely altruistic motivations who did not accept payment. Suppliers' motivations differed depending on who they sold to. OMTs and CMTs were primarily motivated by making money, while SNSs had purely social motivations. SNSs of IMS were similar to 'social supply dealers' of soft drugs as they had altruistic motivations of helping out friends. But they were also different to most types of social suppliers in drug markets, where money often does change hands or drugs are swapped for other goods, services, or intangible rewards because SNS gave the product as a gift with nothing in return (Coomber, and Moyle 2013; Hobbs, 2013; Pearson, 2007; Potter, 2009; Chatwin and Potter 2014).

The fourth dimension was based on whether suppliers operated within open, closed, or social network markets. I identified three types of suppliers here: OMTs, CMTs, and SNSs. Most of my consumers purchased from closed rather than open markets. There are some similarities between drugs and other illegal markets within these four dimensions, but also important differences.

Interestingly, whether suppliers offered an illicit product or an illicit service, who they sold to, and their motivations, all overlapped. OMTs were always *profit-motivated*, and they always *worked alone*. Some offered illicit products others IMS, and others a mixture of products and services. CMTs were always *primarily profit-motivated* with some *altruistic motivations*; some offered illicit products others offered IMS. CMTs had different organisational structures: sole traders, partnerships, or criminal groups. There were too few traders to say whether CMT's organisational structure differed depending on whether traders offered an illicit product or service. SNSs were *always* non-profit motivated, worked alone, and *only* provided IMS.

OMTs and CMTs were always motivated by making money regardless of whether they sold an illicit product or service, and always charged a fee. SNSs always had non-profit, altruistic motivations. They did not sell ISDs; they only

provided IMS, which they offered for free. As PAB traders were always primarily profit-motivated, arguably the trade of PABs at the retail level was a profit-driven 'market-based offence' (Naylor, 2003:85). Most service providers were primarily motivated by making money, but some were not; offering IMS was not always a profit-driven crime.

There were some critical differences when I compared the product or service offered with who the supplier supplied to. OMTs and CMTs traded in a mixture of devices and IMSs, but SNSs only offered IMS. Unlike CMTs, my SNSs did not advertise their services by asking others if they wanted their device to be illegally modified. In relation to the transaction itself, SNSs operated similarly to CMTs that offered IMS, with streaming devices being collected or delivered at private or semi-private places.

This study demonstrated the usefulness of integrating May and Hough's (2004) and Sandberg's (2012) typologies and applying them to ISD traders. The difference between open and closed markets is whether traders know the people they sell to (May and Hough, 2004). Another way to classify the retail distribution of an illegal product is by exploring where dealing happens. Sandberg (2012) identified three types of cannabis distribution markets based on where dealing happens: private, semi-private, and public places. Where traders sell and who they sell to often overlap, they both relate to trust (as well as other aspects of risk). All three existed within the ISD trade: OMTs mostly trade in public places (e.g., online and offline shops, such as those identified in IPO reports (2017b; 2018b, 2019) or semi-private places (e.g., pubs and clubs, such as those I encountered) and CMTs mostly trade in private places (e.g., either the sellers' or customers' house).

Another main contribution to knowledge is my recognition that there are two types of OMTs within the ISD trade. One type was the traders I identified that operated within an open market where that context offered protection, such as selling to strangers but in semi-private places where they were familiar and held a culture where people would not report crime. These traders operated within a grey area between open and closed markets, rather than in completely open markets. This relates to why open market trading in my study was perceived as low risk. They would not operate in completely open markets where they did not

know anyone. The second type was the traders identified in IPO reports (2017b; 2018b, 2019) that would sell to anyone, anywhere. Conceptualising two types of OMT has also been identified within some types of drug dealing (Sandberg, 2012) distinguishing between 'open' (e.g., street dealing; Williams, 1989) and 'semi-open' markets (e.g., dealing in or around pubs or clubs; May and Hough, 2004; Pearson, 2007; Parker, 2000; Ward, 2010).

As the trade and use of ISDs are illegal, in chapter seven I aimed to understand the risks posed by trading and using ISDs and the strategies employed to minimise these risks. Both traders and users identified the risk of detection and employed strategies to minimise this risk. For some, this involved not purchasing from or selling to strangers.

Overall, the ISD trade is relatively low-risk. Consequently, many of my respondents were not overly worried when trading and implemented only rudimentary RMS. In contrast, some traders (particularly Ralph) over-interpreted the actual risk, leading to paranoia. But there is *some* actual risk, which increases for those more heavily involved. Furthermore, my traders' understanding of the law and how Trading Standards operate was partially inaccurate, therefore some of the RMS they implemented based on this knowledge was unnecessary or was unlikely to have worked in practice. Chapter seven has demonstrated an ongoing problem of people not understanding the law. Some of my traders believed they were acting within the law, but they were not (the offences they could be charged under were described in section 2.2.2). People's understanding of the law was more influential on their behaviour than the actual law, which was problematic for deterring ISD traders.

Traders identified three main risks. They were concerned that if they sold to strangers their customers might be undercover officers. To minimise this risk CMTs only sold to trusted individuals and OMTs were wary of strangers with some conducting a risk assessment before selling to them (e.g., looking for signs they were a cop). A related concern for some was that if they traded in public places they may be detected because of witnesses reporting them. To minimise this risk, CMTs did not sell in public places and some OMTs were discrete when advertising and trading. Another risk felt by some was of the product being detected and seized during storage. In response, most traders illegally modified

devices at the last minute. A few participants identified a fourth risk: of being under police surveillance. In response, they bought and sold ISDs in cash rather than by electronic payment and did not trade online, and they avoided electronic communication when 'talking shop' (Stan).

Interestingly, most traders in my sample did not exist (or need to exist) as part of an illegal supply chain, as some offered illegal services, and some got their products from legal sources. There were some interesting differences between my OMTs and CMTs in the risks they identified. All my OMTs purchased devices from illicit sources while CMTs purchased devices from licit sources. Yet both types of traders identified risks, albeit in different areas.

My law enforcement interviews revealed that most of the perceived risks my traders identified, relating to detection, have some basis. However, the degree to which the perception matches reality varies. There were some risks that traders identified that were potentially likely to happen. Traders feared that if they sold at open markets the customer might be an undercover police officer - and Trading Standards do conduct test purchases.

Some traders ignored actual risks (as being minor or unlikely to happen) or took some basic steps to mitigate them. But, some traders (e.g., Ralph) seemed to perceive many risks as being much more likely to happen than they actually were and took unnecessary or excessive steps in response. Ralph believed there was a risk of being under police surveillance but North East Trading Standards (NETS) reported that they do not put suspected ISD traders under surveillance. Nevertheless, my traders *believed* that these risks were real, therefore they were important factors in shaping how they conducted their business. Of all my traders, Ralph identified the most risks when trading ISDs (see section 7.2.1). His perception of risks significantly impact on how he behaved – both in terms of how transactions took place and how he related to me as a researcher. He saw risks at every stage of his illegal business, and implemented strategies to minimise them. He successfully evaded detection, but so did everyone else, suggesting he was either extremely cautious or paranoid or both.

Market participants had different assessments of risk. Pub landlords worried about being detected illegally streaming sports because of a surprise visit from the police (section 5.2). At the same time, most traders reported trading ISDs as a low-risk crime partly because the police are too busy to investigate it (sections 5.8.2 and 6.3.2). These groups had different perceptions of risk because risk assessment is subjective, based on their personal experiences, local knowledge of policing, word-of-mouth, and media perceptions. Another difference is traders' and publicans' understanding of the risk associated with the ISD trade. ISD traders do not believe violent criminals are involved (section 6.3.2) whereas landlords believed they could be (section 6.4.1.5). This difference in perceptions was likely because landlords are more aware of local criminals' involvement in illegal markets due to their jobs than traders who merely hear about illegal activity from their social network.

My traders had different perceptions of risks and some were more risk-averse than others. This raised the question of whether some were more rational. However, this is a criticism of rational choice theory, as all my traders can be understood as rational actors, at least on their own terms. Bounded rationality (Cornish and Clarke, 2006) is essential to understanding my trader's perception of risk. They weighed up the costs and benefits and factored these into decisions of how they act; therefore, they made rational choices. Their behaviour was rational to them, but some traders overestimated risks while others underestimated them; therefore, from an objective perspective their behaviour might be considered irrational.

Schitts Peak is used as an example to demonstrate bounded rationality. They advertised their illegal activities (e.g., illegally streaming sports in a pub), and their behaviour was rational (to them) because they thought it would attract more customers and increase profits. My market participants reported that Schitts Peak's behaviour was irrational because only regulars frequented that pub. After all, it was populated by 'rogues' and regulars who already knew that the pub streams foreign matches; advertising did not attract more customers. Instead, it drew unwanted attention from law enforcement, resulting in their detection. The criticism of rational choice theory, when applied to this example, is rationality is subjective.

Some of my participants' perceptions of the likelihood of detection were based on their past experiences. Marcus and James did not get caught selling pirated DVDs therefore they rationalised that they would not get caught selling ISDs. This study supported other studies on deterrence theory as they also found that 'people's previous experience highly influences their expectations regarding their chances of being caught and suffering the resulting penalties' (Tibbetts and Piquero, 2022:63).

Chapter six described my traders' motivations, which influenced the factors that my suppliers considered when making a cost-benefit analysis. SNS were not interested in making money; therefore, they put a lot more emphasis on risk factors, had a lower risk tolerance and took fewer risks than OMTs. As OMTs were interested in making a profit, they took more risks and needed to be more involved than CMTs and SNSs.

Rational choice theory shares 'classical criminology's assumption that offenders are essentially rationally calculating actors' (Newburn, 2007:280). There are many criticisms of classicism. One main assumption is that crime is a choice committed to maximise benefits and that criminals have free will. Such views ignore structural inequalities which might motivate people into criminality (Cohen, 1996). Although market participants in this study entered the ISD market *after* making a rational calculus they entered *because* of their economic situation. Another major criticism of classicism is it assumes criminals know the likely penalty for their offence, but criminals rarely have a good understanding of the law and sentencing guidelines to know this (Hornsby and Hobbs, 2007). ISD traders in this study either did not know or did not consider the likely penalty (see section 7.1).

One key finding was that there was mostly no violence in the ISD trade, as my traders tended to avoid it. But part of the context in which they operate with relatively low fear of being caught is a culture where people are generally unwilling to report crime. This reluctance is partly due to it being perceived as immoral to snitch and ISD trading being normalised and partly due to the 'snitches get stitches' culture. The background violence (or threat of violence) that goes with that culture helps create the space where violence by traders is unnecessary.

Furthermore, my traders believed there was a low chance of being informed on due to this shared culture. By operating within a community where the trade of illegal goods was socially acceptable, there was a code of honour against snitching, and where 'snitches get stitches' (Potter and Potter, 2020) this offered traders an extra layer of protection against detection, whether they identified this or not.

The end-users I spoke to only identified one risk when illegally streaming: being detected by their Internet Service Provider (ISP) resulting in cease-and-desist letters. To minimise this risk, some users used a Virtual Private Network (VPN) or their neighbours WIFI to hide their identity. None of the traders I encountered, and only one household user, were detected by law enforcement, maybe because they used RMS. Most importantly, it is also highly likely that most traders (and even more users) would often avoid detection because the ISD trade is not a policing priority. Chapter eight showed that by the end of 2022, the ISD market had ended within the towns of study and there is some evidence to suggest that since 2017 the pirated Kodi market has declined nationally.

As identified in chapter five, there were two components that explain why the ISD market emerged. Interestingly, supply and demand dynamics are more important than the risk component in explaining why the ISD market ended within my study. It mostly ended not because suppliers became too concerned about risks but because ISD users shifted to other forms of illegal streaming. Arguably, policing efforts had a limited impact on the ISD market declining. The trade being a hidden activity and a low policing priority are arguably the main factors. My NETS contact reported that investigating ISD traders relied on receiving complaints from the public and active policing. However, there is public tolerance towards digital piracy and normalisation of ISD use (Industry Trust, 2016), which arguably limits the number of complaints. And it is expensive and time-consuming to investigate and prosecute ISD traders.

To explain why the ISD market ended and fewer pubs were illegally streaming sports I now compare and summarise why households stopped using ISDs, pubs stopped illegally streaming sports, and suppliers left the ISD market. One important reason that both ISD household users and some commercial premises

stopped illegally streaming sports was that they encountered problems accessing football due to Premier League Blocking Orders (PLBOs). Some of my household end-users reported that PLBOs made it more difficult to find football streams on ISDs, but it was not impossible. Joe and Stan did not report any problems with their ISS due to PLBOs. They were still able to illegally stream sports, potentially because both they and their illegal streaming provider used VPNs. PLBOs did stop some pubs from illegally streaming, perhaps because they did not use VPNs. This finding has policy implications as it demonstrates that blocking illegal football streams is an effective crime prevention strategy for all users. However, this is only if they cannot find an alternative illegal stream and do not have a VPN.

Interestingly, the threat of receiving a warning letter arguably contributed to stopping some pubs and clubs in Northeast England from illegally streaming sports. In contrast, such letters had a limited effect on household users. They were an effective deterrent for the one participant in my study who received this letter. However, it did not deter my ISD users who only heard about others receiving them. Presumably, the threat of receiving warning letters worked on some commercial premises but not on households because the severity of the potential penalty is worse for the former than the latter. Commercial premises face losing their commercial licence, thus potentially losing their job and income (see sections 2.2.7), whereas households merely face a fine (see section 2.2.6). As only one of the 60 household users in my study had received a warning letter and only his social circle knew someone who had received such a letter it was not a very effective policy on households in my study.

A common reason traders and household users left the ISD market was that users shifted to other forms of illegal streaming. Most of my traders reported that they ceased trading because they were experiencing competition from other illegal streaming providers. One reason consumers shifted to other forms of illegal streaming was because they encountered problems with pirated Kodi resulting from law enforcement action and crime prevention strategies.

All three groups, household users, landlords and ISD traders, left the ISD scene for similar reasons: the emergence and rapid expansion of other illegal streaming markets; target hardening strategies; and law enforcement action

against illegal streaming. These factors contributed to the decline in demand for ISDs.

Since 2017, law enforcement action and target hardening strategies against illegal streaming on Kodi multimedia players have made it more difficult to find reliable illegal streams to watch. Meanwhile, my ISD users gradually shifted to other forms of illegal streaming (e.g., ISS), which could provide more reliable streams.

Why individual traders stop trading, and why illegal markets end, are two different questions. But their answers are related for the ISD trade. Usually within illegal markets when individual traders leave, they are replaced by others (Adler, 1993). But this did not happen in the ISD trade I studied, at least not in its dying days. The main reason my suppliers stopped supplying, and the local market ended, was because there was no longer demand for ISDs or IMS to be met. Demand for ISDs ended because as technology evolved, ISDs were replaced by alternative ways to access legal and illegal streams.

A crucial part of understanding the growth and end of an illegal market is the motivations of the suppliers and consumers. Suppliers motivated by profit can only achieve this goal if consumers want to buy what they are selling. When consumers stopped wanting ISDs and IMS, profit-motivated suppliers ceased trading. For my altruistically motivated participants (SNS), they were no longer needed or able to help their friends, so they ceased providing such services.

Only Gareth and Anthony ceased trading solely because they perceived participation to have become too risky due to law enforcement action; most of my traders did not perceive their involvement to be all that risky. Therefore, the threat of receiving a custodial sentence had a limited deterrent effect on my traders. This finding reflects other research which shows traders of illegal goods often cease their involvement when they perceive the risks as becoming too high. This usually occurs due to law enforcement intervention strategies, policy changes, or legislative changes (Dunlap et al., 1994), or fear of violence from other market participants (Hornsby and Hobbs, 2007).

There are several examples I came across in my fieldwork (and previous experience and knowledge of the area) where other local illegal markets had ended because there was no longer demand for a product, rather than ending

due to law enforcement activity. The pirated DVD market ended when people no longer wanted DVDs due to technological developments. Indeed, demand for DVDs was partially replaced by ISDs. Another example is the waning demand for counterfeit goods (especially handbags) amongst my female participants. The market for counterfeit Burberry and Louis Vuitton bags ended locally when they were no longer fashionable. Several years later, they were replaced by demand for counterfeit Michael Kors bags. This is an example of market evolution, similar to the ISD market changing as new devices became available. Overall, changes in local demand may have been caused by changes in illegal markets reflecting changes in legal markets (Hobbs, 2013).

Arguably, illegal markets often do not end but evolve or are displaced. For example, parts of the illegal drugs markets are shifting from offline to online (Barratt and Aldridge, 2016; Martin, 2014), while cannabis markets are increasingly localised and 'democratised' as domestic cultivation has taken off around the world (Ancrum and Treadwell, 2016:81; Decorte and Potter, 2015). Both these trends, where markets have evolved or been displaced, have developed in response to how technological developments have changed demand and supply. The ISD market within the towns of study indeed ended because there was no longer demand. But it is also true that the broader illegal streaming market evolved within the towns of study because demand shifted from one form of illegal streaming (ISDs) to another (mostly ISSs) in response to technological developments.

In theory, it would be expected that illegal markets would collapse when law enforcement activity prevents suppliers from being able to acquire supplies, but this rarely happens. In theory, if law enforcement targets the start of the supply chain and stops the manufacturing (or growth e.g., drugs) or transportation of an illegal product, they can stop the product from reaching end-users. Therefore, they can stop supply. However, the problem with this approach is that there are multiple manufacturers of illegal products (and growers of drugs) and multiple supply routes (Hall and Antonopoulos, 2015; 2016). Therefore, if one source dried up the supplier could get their product elsewhere. The ISD trade is somewhat different because streaming devices can be purchased from legal sources and then be illegally modified. Therefore, it is not possible to target the top of the ISD supply chain at the manufacturing level to stop the production of streaming

devices as that would impact the legal streaming market as well. Targeting the top of the supply chain would be challenging within any illegal market with an equivalent legal market.

Another theoretical reason that illegal markets collapse is that there is no longer any demand for suppliers to meet but this rarely happens in illegal drug markets. One example of where drug markets have evolved because of demand-led changes is where legalisation of cannabis has displaced demand from illegal to legal markets, such as in some American states, Canada, and Uruguay (Decorte and Potter, 2015). In most cases, illegal cannabis markets have continued to exist alongside legal markets. Subsequently, they may have displaced some demand, but not all. But the (illegal) markets have evolved in these cases.

Chapter eight raises the question of whether technological changes or law enforcement activity have been more important in the national demise of the pirated Kodi market. Law enforcement might be seen as important and successful. However, arguably that is only the case because technological changes (new alternative ways of accessing illegally streamed materials) have reduced the demand for a replacement pirated Kodi market where law enforcement has closed existing illegal streams.

The ISD market declined within the towns of study because there was no longer demand for suppliers to respond to. Consequently, I would recommend further research into illegal markets *in general* that might help to further understand how economic factors, such as supply and demand, (which may relate to technological developments) - in particular, *demand*-related factors are more important than law enforcement action or crime prevention strategies to understand why illegal markets emerge, evolve or are displaced.

9.1 Policy recommendations

As the ISD market is declining and being replaced by the PISPTVS market, offering policy recommendations to deter the supply and use of ISDs seems futile. A more useful recommendation would be to conduct further research on the ISS markets and develop policy recommendations from such research. Although the pirated Kodi market is dwindling, there still exists a market for free pirated apps

or add-ons; any policy recommendations drawn from my study would also be applicable there.

As there has been a lack of academic investigations into the trade of free pirated add-ons (except for the European Union Intellectual Property Office (EUIPO), 2019 study) there are ample opportunities for similar studies, not on pirated Kodi, but on other free pirated add-ons. There are different approaches to deter people from illegal streaming which are already in place, some of which have been discussed as part of the reasons the ISD market declined at a national level. (See Stöttinger et al., 2017 for a review of policies against digital piracy.) There are other approaches that I did not discuss as they were unlikely to have had any impact on my participants' decision to leave the market, such as policies targeting the online trade for ISDs.

One approach is to reduce the demand for illegal streaming by decreasing the cost of legitimate streaming services (Stöttinger et al., 2017) which might reduce the number of motivated offenders. This policy assumes that the only reason users engage in illegal streaming is that it is cheaper than legal streaming. If such services were reasonably priced users would stop illegally streaming. But not all users of illegal streaming services are motivated by low prices (see section 5.6.1).

A common approach to reduce consumer demand for pirated goods is through media campaigns (e.g., Crime Stoppers) (Industry Trust, 2016) that raise awareness of the harms piracy causes, such as how by engaging in digital piracy users are funding organised criminal activity (FACT, 2017a). This is an educational approach to crime prevention which has been successfully used for decades (Industry Trust, 2016). The main problem with media campaigns is they assume the intended audience will see it; my participants stated they did not see such campaigns. And this approach is unlikely to work in neighbourhoods, such as those described in my study, where crime is normal and socially acceptable and where illegal streaming is considered a harmless, victimless crime. Another problem is convincing the public OCGs are involved in illegal markets. My participants did not believe OCGs were involved: 'Our local Del Boy is no organised criminal!' (Peter). My retailers were not aware of the involvement of OCGs in the ISD market. None of my retailers were part of OCGs, but there might

have been OCG involvement at middle and upper levels. In my study, the reason OCGs were not involved in the ISD market at the retail level was likely because there was not a huge amount of money to be made.

A general crime reduction approach has been to incentivise people to report crimes (i.e., by offering a financial reward, as with Crime Stoppers). This approach is somewhat effective against ISD traders and public houses supplying illegal sports streams as NETS reported most of their cases were based on complaints (see section 7.10). However, this approach is unlikely to work in neighbourhoods, such as those in my study, where people are generally unwilling to report knowledge of crimes. Participants reported the benefit (financial compensation) does not outweigh the possible risk to their safety (violent repercussions) or their reputations (social stigma attached to snitching). This is another example of where rational choice theory can be applied, as participants conducted a cost-benefit analysis. The approach clearly works on some people because on rare occasions residents of Penny Lane had allegedly reported knowledge of crimes to Crime Stoppers for the reward (sections 5.2 and 7.6).

9.2 Limitations and generalisability

All studies have their limitations and this one is no different. My access to market participants was only possible because I knew some participants for several years and had 'cultural credibility' (Hobbs, 2000). If a different researcher had tried to conduct this study without having a 'membership role' (Adler, 1987) or 'insider status' they would have struggled to identify or gain access to willing participants. The findings of this study are not generalisable because a snowball sampling strategy was used, which produces a non-representative sample of the study population. As ISD buyers and sellers constitute a hidden population, which leads to challenges in identifying and gaining access to this group, it would have been impossible to gain a representative sample (Adler, 1993; Wright et al., 1992).

Studies have shown that illegal markets vary in relation to place and time and constantly change and evolve in response to changes within society and broader structural factors (Ancrum and Treadwell, 2016; Coomber, 2010; Dorn et al., 1992; Dunlap et al., 1992; Hobbs, 2013; Hobbs and Dunningham, 1998;

Passas, 2003; Potter, 2018; Von Lampe, 2016; Williams, 1989). Studies on drugs and counterfeit goods markets have shown that illegal markets differ between geographical locations (Antonopoulos and Papanicolaou, 2018; Curtis and Wendel, 2000; Dwyer and Moore, 2010; Pearson and Hobbs, 2001; Treadwell, 2012; Von Lampe, 2016). Similar to any criminal activity, illegal markets do not exist in isolation they are shaped by social, cultural, political, historical and economic contexts (Antonopoulos et al., 2018; Dorn et al., 1992; Hall and Antonopoulos, 2015; McSweeney et al., 2008; Potter, 2018).

Due to practical constraints, including lack of time and resources, this study only focused on the ISD retail market in two towns in one region of the UK: Northeast England. The studies discussed above suggest that the findings may be different if I had conducted this study in a different part of the UK, such as the south of England. The wealth differences between these regions – the poor Northeast and the rich South (Joseph Rowntree Foundation, JRF, 2020) – may have led to different findings.

This study was set within a specific economic and cultural context within an economically-deprived area with working-class people. If this study had been conducted in different pubs in northern England also with working-class participants the findings may have been similar, because the culture of crime being normal has also been identified within other studies in working-class areas (e.g., Hobbs' 1988, 1995, 2013). Also, the findings may have differed if participants had been middle-class professionals rather than working class as they are less likely to be part of a community where illegal trading is socially acceptable.

Although there are both online and offline markets for ISDs I only had access to traders operating at offline markets and buyers that mainly bought from offline traders within a specific cultural and geographical locale. If I had researched the online market for ISDs the findings might have been different because online markets are open to anyone regardless of geography or culture. Therefore, important questions for future research on illegal streaming markets include what streaming devices or services do online traders offer? Are there different types of traders based on their motivations, their organisational structure, and where and who they sell to? Within my study, demand for pirated

Kodi shifted from android boxes to firesticks. It would be interesting to know whether this shift occurred within the ISS market and other free pirated add-on markets.

This study demonstrated that when one form of illegal streaming ended another replaced it, therefore crime displacement occurred, demonstrating that preventing illegal streaming is challenging. Digital piracy will continue as long as there is demand – and suppliers willing to meet this demand. How it is accessed will evolve in line with technological developments. Currently, digital piracy occurs through apps that provide access to illegally streamed content via streaming devices, some of which require payment while others do not. As the ISS market has been replaced by the ISD market, we may raise the question of what will emerge after.

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Appendices

Appendix one: Topic guides

Topic guide for illicit streaming device traders

Entering the ISD market

- When did you start selling?
- How did you get into it?
- What skills did you need to start selling?
- Level of expertise at the start, development of expertise over time

Motivation for selling

- Why did you start selling?
- Did your reasons for selling change at all over time?
- Why did you stop selling?
- Would you start selling again? If not, why not?

Distribution of ISDs

- Where do you sell? Why that market?
- Do you sell online? If not, why not?
- Are you familiar with the online market for dodgy android boxes and firesticks?
- How do you find potential customers and how do you know you can trust them?
- Who do you sell to?
- Why do you trust them?
- Do you worry customers might be undercover cops?
- Do you worry about whether customers will rip you off?
- Have you ever been ripped off?
- How do customers pay?
- How much do you charge?

Criminal collaboration

- Do you work with anyone?

- If yes, how do you know them and how did you get to know them?
- What is your relationship with them, why work with them?

Market structure

- How do you run your business?
- Who supplies you with the product?
- How did you get in touch with your supplier?
- Who are the people involved? Do you know how they got involved?
- Do you know anything about how do they run their business?

Personal identity

- How do you see yourself as a trader?
- Is it legal to sell android boxes?
- You are committing a crime, so you are labelled as a criminal by society how does that make you feel?
- Do you consider yourself to be a criminal for selling android boxes or installing Kodi?
- Attitudes towards the trade of ISDs
- Do you think you are hurting anyone selling dodgy android boxes?

Background information

- Demographic information: age, gender, ethnicity
- Current and previous job
- Highest level of education
- Have you always been a local?
- Are you currently and have you ever been involved with other illegal markets or other crimes?

Detection

- Have you ever had any encounters with the police?
- How do you avoid getting caught from the police?
- Do you think you have ever talked to an undercover cop?
- Have you ever been caught and got into trouble for selling?

- Tell me about the risk of getting caught? How big is the risk of getting caught?
- What do you think will happen if you are caught? What penalty do you think you will get?

Other

- Have you got any good stories to tell?
- Is there anything you would like to add that I have not asked you?

Topic guide for buyers of ISDs

Market entrance

- How did you find out about the dodgy box market?
- How did you know where to buy or who to ask?
- Tell me about the first time you bought

Motivations for purchase

- Why did you buy a Kodi box or dodgy firestick, what made you want one? What do you watch on it?
- Benefits and limitations of using the device
- Why did you stop watching stuff using the Kodi application? Would you start watching stuff again on Kodi if you could?

Buying ISDs

- How much did your box or stick cost?
- How many boxes or sticks have you bought?
- Who did you buy it from? (e.g., friends or strangers)
- How do you know them and how did you get to know them?
- Why do you trust them? have you ever been introduced to a seller that you could not trust?
- How does the seller you know run their business, do you know anything about that (e.g., like who is involved, what roles there are)?
- Is there anything you worry about when buying a dodgy box or stick?
- Where did you buy your box or stick: (e.g., online or offline)? why from there and not somewhere else?
- Are you familiar with the online market for dodgy boxes and sticks?
- Where did you buy it?
- Are you worried about being ripped off?
- Is it legal to buy an android box or firestick?

Personal identity

- Do you see yourself as a criminal for buying a box or stick?

- Attitudes towards the trade of ISDs
- People that sell android boxes or firesticks that has Kodi on and lets you watch Sky Sports and that for free are committing a crime and they are labelled as a criminal by society, how does that make u feel? Do you consider sellers to be a criminal?

Detection

- Tell me about any interaction with traders or law enforcement that you have had
- How do you avoid detection from the police? Is it legal to buy abs?
- Do you think there is a risk of getting caught?
- What do you think will happen if you are caught? What penalty do you think you will get?

Other

- Have you got any good stories to tell?
- Criminal career history: current and previous Involvement in other illegal markets and other crimes
- Do you think people selling dodgy android boxes harms anyone?
- Do you know about or participate in the online community surrounding Kodi and the different applications?

Background information

- Demographic information: age, gender, ethnicity, (socio-economic status)
- Current and previous job,
- Highest level of education

Topic guide for pub landlords

- How do you currently show Live sports in your pub?
- Have you always showed Live sports in that way?
- What is the law on showing Premier League matches within pubs?

Market entrance

- How did you find out about this market, who introduced you?
- How did you know where to buy or who to ask?
- Tell me about the first time you bought.
- Who supplies you with live sports?
- How do you know them and how did you get to know them?
- Where did you buy your box or stick: (e.g., online or offline)? why from there and not somewhere else?
- How much do you pay for the sports and how much does Sky or BT charge for sports?

Detection

- Is there anything you worry about when you bought the sports subscription?
- Do you think there is a risk of getting caught?
- What do you think would happen if you were caught?
- How do you avoid getting caught?

Motivations for purchase

- Why do you use dodgy boxes rather than paying Sky or BT sports?
- Benefits and limitations of using the device

Background information

- Demographic information: age, gender, ethnicity, (socio-economic status)
- Current and previous job,
- Highest level of education

Other

- Have you got any good stories to tell? Is there anything you would like to add that I have not asked you?

Topic guide for Trading Standards

- What is your role in Trading Standards?
- When (what year) did you start investigating cases involving ISDs?
- Has the number of cases you have received on sellers of ISDs changed overtime?
- How many cases involving sellers of ISDs have you had since you started investigating?

About ISD market

- When do you think the ISD market emerged and expanded?
- Why has the ISD market emerged?
- At what point does a streaming device become illegal?
- Based on the cases you have investigated what has been the gender, age range, ethnicity, social class of the traders of ISDs?
- Are traders poor or do they have money, do the traders have a legitimate job?
- Are woman involved in the ISD trade? What role do they occupy? Do they work alone or with men?
- Are sellers of ISDs involved in other crimes?
- Are organised crime groups involved in the sale of ISDs?
- What is your definition of an OCG?
- During your investigations of traders of ISDs how many boxes were they selling?

Selling the product

- How do traders run a ISD business? What are the roles involved?
- When traders/resellers purchase the device is it already illegally modified? If not, who illegally modifies the device?
- Where do traders purchase ISDs to sell on to customers?
- Why do traders sell ISDs?
- Where are ISDs sold to customers?
- Has the place ISDs are sold changed over time? If yes, why do you think it has changed?

- How do traders of ISDs target their customers, advertise the product?
- How much do traders sell ISDs to customers for? And has the price changed over time?
- What are the estimated profit levels? What do traders of ISDs spend their profits on?

Detection

- How do you catch people selling?
- Have there been any big policing operations targeting the trade of ISDs? If yes, have you been involved in any of these operations?
- What agencies do you work with when you investigate cases involving ISDs?
- Is the trade of ISDs a high priority for Trading Standards?
- Penalty/Punishment for sellers
- What action do you take against people suspected or caught selling ISDs?
- What offence are traders of ISDs charged with?
- Discuss your experiences with seizures and raids of ISDs

Pub landlords who illegally stream live sports

- Commercial premises as consumers of ISDs
- Who investigates whether pubs are using ISDs?
- How many pubs do you think are currently using an ISDs? Has the number changed overtime?
- Why do pub landlords use ISDs in their pubs?
- What penalty do or have pub landlords that have used ISDs in their premises been charged with?

Market changes

- Are there any key changes within the ISD market that have occurred over time? Has the place sellers trade changed overtime?

Appendix two: Recruit email

Advertisement email for the head of The North East Trading Standards Association to send to members of their team:

Dear member of the North East Trading Standards Association,

Title of project: Analysis of the illicit streaming device market

My name is Lisa Potter. I am a research student in the law department at Lancaster University and my research supervisors are Dr. Gary Potter and Dr. Katie Benson. I am conducting a research study as part of the requirements of my PhD in Criminology, and I would like to ask you as a member of Trading Standards in the North East region that is involved with investigating cases involving the trade of illicit streaming devices if you would be willing to participate in this study.

The purpose of this study is to understand the illicit streaming device market and the people involved which we currently know very little about, but which has been flagged up by various law enforcement agencies and the UK government as something to be concerned about. My study aims to provide an evidence base for policy makers but not specifically to aid law enforcement.

If you choose to participate you will be asked to speak with me for an interview to discuss what the North East Trading Standards team does to prevent the trade of illicit streaming devices and how you do it. If you chose to participate in this study your expert knowledge and experience would be beneficial to academics and society in developing an understanding of the illicit streaming device market from a policing perspective which could lead to policy recommendations about how to deter other sellers of pirated goods from doing the same.

The meeting will take place via phone call or Skype or Microsoft Teams whichever is most preferable to you and will take place at your preferred time and date and could last between 40 minutes and an hour. The key points of the interview will be noted down on paper or audio recorded with your permission so that I can reflect on what is discussed. If you choose to participate in this study, I have attached a participant information sheet which provides more information about the study.

I will be happy to answer any questions you have about the study. I can be contacted at l.potter3@lancaster.ac.uk or you can contact my research supervisors, Dr Gary Potter (g.potter2@lancaster.ac.uk) and Dr Katie Benson (k.benson1@lancaster.ac.uk)

Thank you for your consideration. If you would like to participate please contact myself to discuss participating.

With kind regards,

Lisa Potter, (BSc, MA) PhD researcher, l.potter3@lancaster.ac.uk
Law department, Lancaster University, Lancaster LA1 4YL

Appendix three: Participant information sheet and consent form



Participant information sheet policing agents

Title: Understanding the illicit streaming device market

I am a PhD student at Lancaster University, and I would like to invite you to take part in a research study about understanding the illicit streaming device market in the UK.

Please take time to read the following information carefully before you decide whether or not you wish to take part.

What is the study about? The purpose of this study is to understand an illegal market and the people involved which academics currently know very little about, but which has been flagged up by FACT and various law enforcement agencies and the UK government as something to be concerned about. My study aims to provide an evidence base for policy makers but not specifically to aid law enforcement.

Why have I been invited? I would like to interview you as you are a member of an agency responsible for investigating cases involving illicit streaming devices. This study is focusing on understanding the illicit streaming device market in the UK.

What will I be asked to do if I take part? You will be interviewed about your experience investigating cases involving illicit streaming devices. The interview will be conducted via telephone or video call (Skype or Microsoft Teams) and will last between 40-60 minutes.

What are the possible benefits from taking part? If you chose to participate in this study your expert knowledge and experience would be beneficial to academics and society in developing an understanding of the illicit streaming device market from a policing perspective which could assist academics in

making policy recommendations about how to prevent the trade of illicit streaming devices.

Do I have to take part? Participation is voluntary therefore you do not have to answer any questions that you do not wish to. You may end the interview at any time or decide not to answer any question you are not comfortable answering.

What if I change my mind? If you would like to take part but change your mind at a later stage, this is not a problem and all you have to do is to let me know that you want to withdraw. However, I hope you understand that you can only withdraw for up to two weeks after you have been interviewed. This is because your interviews and other members of your teams interviews will be combined so that I will no longer be able to identify who said what.

Will my data be identifiable? After the interview only I, the researcher conducting this study and my supervisors will have access to the ideas you share with me. I will keep all personal information about you (e.g., your name and other information about you that can identify you) confidential, that is I will not share it with others. I will remove any personal information from the written record of your contribution.

How will you use the data about me and what will happen to the results of the research study? I will use the information you have shared with me for research purposes. This will include my PhD thesis and may include other publications, for example journal articles or book chapters. I may also present the results of my study at academic conferences. If anything you tell me in the interview suggests that you or somebody else might be at risk of harm, I will be obliged to share this information with my supervisors. If possible, I will inform you of this breach of confidentiality.

How my data will be stored? Your data will be stored in encrypted files (that means, no-one other than me will be able to access them) and stored on a password-protected laptop. I will store hard copies of any data securely in a locked filing cabinet. I will keep data that can identify you separately from non-personal information (e.g., your views on a specific topic). In accordance with University guidelines; I will keep the data securely for a minimum of ten years.

What if I have a question or concern?

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact myself

l.potter3@lancaster.ac.uk

or you can contact my research supervisors, Dr Gary Potter

(g.potter2@lancaster.ac.uk) and Dr Katie Benson (k.benson1@lancaster.ac.uk)

If you have any concerns or complaints that you wish to discuss with a person who is not directly involved in the research, you can also contact the head of the law department: Alisdair Gillespie

(a.gillespie@lancaster.ac.uk) +44 (0)1524 593706 (Lancaster University Law School, Bowland North, Lancaster, United Kingdom, LA1 4YN)

This study has been reviewed and approved by the Faculty of Arts and Social Sciences and Lancaster Management School's Research Ethics Committee.

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

Thank you for considering your participation in this project.

Consent form policing agents

Project Title: Understanding the illicit streaming device market



Name of Researchers: Lisa Potter Email: l.potter3@lancaster.ac.uk

Please tick each box (or put an x next to the box)

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily	
2. I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and within two weeks after I have taken part in the study, without giving any reason. If I withdraw within two weeks of taking part in the study my data will be removed.	
3. I understand that any information given by me may be used in future reports, the PhD thesis, academic articles, publications or presentations by the researcher, but my personal information will not be included, and I will not be identifiable.	
4. I understand that my name will not appear in the PhD thesis or any reports, articles or presentation without my consent.	
5. I understand that if my interview is audio-recorded and transcribed that data will be protected on encrypted devices and kept secure.	
6. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study.	
7. I agree to take part in the above study.	

Name of Participant _____

Date _____

Signature _____

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature _____ **of** _____ **Researcher** _____ **/person** _____ **taking** _____ **the**
consent _____ **Date** _____ **Day/month/year**

One copy of this form will be given to the participant and the original kept in the files of the researcher at Lancaster University

Appendix four: Table of ISD end-users

This is a table of end-users of ISDs that I spoke to, and have cited (34 people), and their age ranges at the time I first spoke to them as part of this study (in 2019). All my ISD traders were also users therefore I spoke to some of them in both capacities, consequently they are included in this table. Most end-users in Springfield were patrons at Joe’s Tavern while most end-users in Beachland were patrons at Stan’s Place. Some participants visited other pubs in Northeast England for special occasions (e.g., stag or hen nights, weddings, or christenings parties), as some pubs had a free or cheap function room.

Key				
Town 1: Springfield 2: Beachland 3: Fisherland 4: Sandland				
PAB Pirated android box, PFS pirated firestick,				
ISS Illegal subscription service, SVOD subscription video on demand, ISD illicit streaming device, IMS Illegal modification service				
Name	Town	Age	ISD used and what they shifted to afterwards	Also ISD or IMS supplier
Mr. Parker	1	Late 50s	PAB to PFS to ISS	No
Mrs. Parker	1	Late 50s	PAB to PFs to ISS	No
Jessica	1	Late 20s	PAB to PFs to ISS	No
Allan	1	Late 50s	PAB to PFs to free pirated sports apps then ISS	No
Vicky	1	Late 20s	PAB to PFs to ISS	No
Lee	1	Late 20s	PAB to PFs to ISS	Yes
Rhianna	1	Late 20s	PAB to PFs to ISS	No
Brody	1	Late 20s	PAB to PFs to ISS	No
Dennis	1	50s	PAB to PFs to ISS	No
Gordan	1	Late 50s	PAB to PFs to ISS	No

George	1	Late 50s	PAB to PFs to ISS	No
Sammy	1	Late 20s	PAB to PFs to ISS	No
Marcus	1	50s	PAB	Yes
Oliver	1	Early 40s	PAB to PFS	Yes
Carter	1	50s	PAB to PFS	Yes
Murphy	1	Late 50s	PAB to PFS to ISS	No
Ned	1	Late 50s	PAB to PFS to ISS	No
Elvis	1	50s	PAB to PFS to ISS	No
Bart	1	60s	PAB to PFS to ISS	No
Gareth	1	50s	PAB to PFS	Yes
Michael	2	Student population Under 25	PFS to free pirated websites	Yes
Flora	2	Student population Under 25	PAB to PFS to free pirated websites	No
Jade	2	50s	PAB to PFS to free pirated football app	No
Chad	2	Student population Under 25	PAB to PFS to SVOD service (Amazon)	No

Bradley	2	Student population Under 25	PAB to PFS to SVOD service (Amazon)	No
Elsa	2	Student population Under 25	PAB to PFS to SVOD service (Netflix)	No
Drake	2	Student population Under 25	PAB to PFS to ISS	No
Aria	2	Student population Early 30s	PAB to PFS to SVOD service (Netflix)	No
Tony	2	40s	PAB to PFS to SVOD service (Netflix)	No
Peter	2	Late 30s	PAB to PFS to ISS	No
Monica	2	Late 20s	PAB to PFS to ISS	No
Clancy	2	Late 40s	PAB to 4K PAB to ISS	No
Johnny	2	Late 20s	PAB to PFS to ISS	No
Barney	4	Late 20s	PAB to PFS to ISS	No