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Behaviour and Characteristics of Perpetrators of Online-facilitated Child Sexual Abuse and Exploitation

A Rapid Evidence Assessment

Final Report

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Disclaimer: This is a rapid evidence assessment prepared at IICSA's request. The views expressed in this report are those of the authors alone.

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Glossary of terms

Please note that the original source of the following terms is noted for reference. Sources have been provided by the authors of this report where no other one is noted.

Term	Definition
Budapest Convention	The Council of Europe's treaty in standardising national laws globally in response to cybercrime, including online-facilitated child sexual abuse (CSA). ¹
Child	A person under the age of 18. ²
Child Exploitation and Online Protection Centre	The Child Exploitation and Online Protection Centre is a command of the National Crime Agency working to protect children from online and offline harm in partnership with local and international police and other agencies.
Child sexual abuse	Sexual abuse of children involves forcing or enticing a child or young person to take part in sexual activities. The activities may involve physical contact and non-contact activities, such as involving children in looking at, or in the production of, sexual images, watching sexual activities, encouraging children to behave in sexually inappropriate ways, or grooming a child in preparation for abuse including via the internet. CSA includes child sexual exploitation. ²
Child sexual abuse material	A representation, whether imagery or in any other form, depicting the sexual abuse of a child, or material which sexualises and is exploitative to a child. ¹
Cleartnet	The 'surface' internet – what regular users of the internet and information and communication technology (ICT) access daily and communicate through – as opposed to the darknet (see below).
Contact offender or perpetrator	These terms predominantly refer to perpetrators of CSA who have performed offences against children involving direct physical contact. Certain studies include dual offenders (see below) in this category. Perpetrators of contact offences with an online element (for example online solicitation culminating in a direct encounter) are also included in this category.
Cryptocurrency	Alternative, digital currencies for use on the internet and (for example) Bitcoin. May be used for purchasing legal and illegal goods and services, the latter including drugs, arms and CSA material.
Darknet	An underlying network on the internet that can only be accessed using specialised technology. There are concerns that CSA material is exchanged through these networks.
Dual offender	A perpetrator or offender who engages or engaged in both online and contact CSA.
End-to-end encryption	End-to-end encryption is a method of secure communication used by organisations such as internet service provider (ISP) mobile operators where only those individuals communicating are able to read the content.

¹ ECPAT terminology guidelines, www.luxembourgguidelines.org.

² IICSA glossary of terms, www.iicsa.org.uk/sites/default/files/glossary.pdf.

European Cybercrime Centre	The European Cybercrime Centre is responsible for transnational initiatives in combating online crimes, including online CSA.
Federal Bureau of Investigation	The Federal Bureau of Investigation is an American law enforcement agency with national jurisdiction over crimes covered by federal law, such as organised crime.
File Transfer Protocol	File Transfer Protocol (FTP) is a series of rules permitting digital files to be transferred between an ISP user and the ISP server on a network.
Grooming	The process whereby a perpetrator engages in online contact with young people, with the intention of commencing sexual contact, either exclusively online or with a view to committing an eventual contact offence. In England and Wales, sections 14 and 15 of the Sexual Offences Act (2003) criminalise the arrangement or facilitation of a child sex offence with children and young people under the age of 16. ³ Grooming is often referred to as solicitation in other jurisdictions, for example in the USA.
Hebephilia (or ephebophilia)	A sexual preference for pubescent children, as opposed to paedophilia, which (on its strict definition) is a sexual preference for pre-pubescent children. May be seen as distinct with hebephilia relating to children in early or mid-puberty (11–14 years) and ephebophilia relating to older adolescents (15–17 years).
Index offence	Considered as the most serious offence in a group of offences that are being dealt with together in a criminal court.
Information and communication technologies	Information and communication technologies (ICTs) are devices and tools used to collect and share information among social networks, and also to communicate.
Internet offender	A perpetrator who has offended only through the internet or using ICT – in contrast to a contact offender (see above) who has had direct physical contact with a child.
Internet service providers	Companies providing broadband and internet access to consumers. In the UK this includes BT, Sky, TalkTalk and Virgin Media.
Internet Watch Foundation	The Internet Watch Foundation (IWF) is a non-governmental organisation and a self-regulatory body that works in partnership with online industry, law enforcement, government and international partners. The IWF operates an internet hotline for public and information technology (IT) professionals to report illegal content online anonymously and also proactively searches for CSA materials.
LGBTQ	Those whose sexuality is defined as lesbian, gay, bisexual, queer or transgender. The acronym is used to represent individuals of diverse sexualities and gender.
Paedophilia	A sexual preference for pre-pubescent children; may also be used to describe sexual preference for children of any age. ⁴ Paedophilia is a psychiatric disorder first and foremost in which not all individuals classified as paedophiles (or hebephiles or ephebophiles) are criminals.
Peer-on-peer child sexual	Child sexual abuse perpetrated by another child or young person

³ Legislation.gov.uk.

⁴ American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. American Psychiatric Pub.

abuse	aged under 18. This can include 'sexting' (see below) and the dissemination of CSA material (for example through a child's network on social networking sites or SNSs). It may also include scenarios where children act as facilitators for adult perpetrators where they introduce and/or recruit other children. ⁵
Peer-to-peer network	A decentralised communications system where computers are connected via the internet, and information can easily be shared between the various devices.
Sexting	Sending sexual messages, images, audios or videos via mobile phones and other ICT devices. ⁶
Sexual extortion of children	A feature of grooming involving 'blackmailing of a [child] with the help of self-generated [sexual] images of that [child] in order to extort sexual favours, money, or other benefits from her/him under the threat of sharing the material beyond the consent of the depicted person' (for example on social media). ⁷
Social networking sites	SNSs are web-based services allowing users to build public or semi-public profiles within a bounded system. They permit users to communicate and interact with other users with whom they share varying levels of connectedness. ⁸
The Onion Router	The Onion Router (TOR) is an ICT device and/or free software permitting anonymous internet browsing or activity; it is commonly used to access the darknet. TOR is freely available and its use is legal, but it can be used for illegal purposes including by perpetrators of online CSA.
UK Council for Child Internet Safety	The UK Council for Child Internet Safety (UKCCIS) is a group of experts and stakeholders which advises the UK government on policy, practice and research evidence.

⁵ ECPAT terminology guidelines, www.luxembourgguidelines.org/english-version.

⁶ Mitchell, K., Finkelhor, D., Jones, L. and Wolak, J. (2010) Use of social networking sites in online sex crimes against minors: an examination of national incidence and means of utilization. *Journal of Adolescent Health*, 47, 183–190.

⁷ ECPAT terminology guidelines (H.4.iii, 52), www.luxembourgguidelines.org/english-version.

⁸ Ellison, N. B. (2007) Social network sites: definition, history, and scholarship. *Journal of Computer Mediated Communication*, 13(1), 210–230.

List of terms

CAID	Child Abuse Image Database (Home Office)
CASIC	Correlates of Admission of Sexual Interest in Children
CEOP	Child Exploitation and Online Protection Centre
CPORT	Child Pornography Offender Risk Tool
CSA	child sexual abuse
FTP	File Transfer Protocol
ICT	information and communication technology
ISP	internet service provider
IWF	Internet Watch Foundation
KIRAT-2	Kent Internet Risk Assessment Tool Version 2
LGBTQ	lesbian, gay, bisexual, queer and transgender
RM2000	Risk Matrix 2000
RM2000R	Risk Matrix 2000, revised version
SNS	social networking site
SOTP	sex offender treatment programme
TOR	The Onion Router
UKCCIS	UK Council for Child Internet Safety

Executive summary

Introduction

- **The Independent Inquiry into Child Sexual Abuse:** The primary remit of the Independent Inquiry into Child Sexual Abuse (IICSA) is to explore how public bodies and other non-state institutions in England and Wales have handled their duty of care in protecting children from sexual abuse. One of the investigations focuses on the institutional responses to child sexual abuse (CSA) and exploitation facilitated by the internet. This is referred to as the Internet Investigation.
- **ICT and CSA:** Evidence suggests that all perpetrators of online-facilitated CSA have broadly been using information and communication technology (ICT) to commit child abuse since the late 1980s.
- **Research aims and objectives:** IICSA commissioned this rapid evidence assessment as part of its investigation into the internet and CSA. Its aim was to answer the question: 'What is known about the behaviour and characteristics of people who sexually abuse or exploit children, where such abuse is facilitated by the internet?'

Research aims and objectives

- In responding to the primary research question listed above, the rapid evidence assessment considered **how perpetrators use specific technologies** to offend and how the availability of these technologies influences perpetrators' behaviour, how perpetrators identify and target potential victims across forums, and what the key safeguarding challenges are for institutions raised by changing technologies and associated perpetrator behaviour.
- The rapid evidence assessment also sought to identify evidence regarding **emerging types of offences**, including self-generated material in sexual solicitation, exploitation and abuse of children, sexual extortion, and offences in which self-generated sexual material shared freely online by children is identified and circulated by perpetrators with an interest in child sexual exploitation material.
- Lastly, the rapid evidence assessment also aimed to capture information pertaining to **children who perpetrate** online-facilitated sexual abuse against peers, relationships between different types of offending, and pathways into offending.
- The rapid evidence assessment was conducted in four stages: pilot, evidence selecting, evidence screening and evidence synthesising.
- The findings from the above points are presented to best synthesise the information in responding to each one while considering the primary research question.

Demographics and other characteristics

- **Demographics:** There is an absence of research specifically designed to collect robust and representative data about the demographic profile of perpetrators of online-facilitated CSA. The studies available find that perpetrators of online-

facilitated CSA are mostly men, and predominantly from a white or European background. Aslan and Edelman (2014) report that this is no different from the backgrounds of contact-only offenders.

- Previous offending and recidivism: Much existing research suggests that perpetrators of online-facilitated CSA are less likely to have criminal backgrounds, previous convictions or prior anti-social histories than contact offenders.
- Cognition and mental health: Perpetrators of online-facilitated CSA appear to share many mental health disorders or psychopathology and psychopathic traits with the broader population of perpetrators of contact or offline CSA.
- Typologies of perpetrators: There is a wide range of typologies of perpetrators and foundations in which researchers have developed them. These different typologies may explain behaviour by motivations or sexual interests, while others may define perpetrators by offence type. Typologies are important in better understanding perpetrator behaviour to inform preventative practices and internet safety for children and young people, assisting law enforcement with ongoing investigations, and in informing the treatment of perpetrators post offence. Regardless of how typologies are developed, many may be linked thematically. First, there are perpetrators who primarily access CSA materials but do not seek contact. Second, there are perpetrators who view children as sexually attractive. Third, there are those who are primarily contact offenders and use ICT as a tool in the perpetration of these offences. Lastly, there are organised criminals who see the abuse of children and the production of CSA materials as commodities leading to financial gain. These offence goals may not be mutually exclusive.
- Survivor and victim characteristics: Researchers argue that some children are more at risk than others, for example those who have been previously abused; are lesbian, gay, bisexual, queer or transgender (LGBTQ); are frequent chat room users; or engage in more risky online and real-world behaviours. Research analysing accounts of 'adolescent' victims (ages 12–16) identified three groups: adapted adolescents, risk-taking aggressor adolescents and inquisitive sexual youth.

Influences of technology

- **Types of perpetrator:** Although 'online-only, contact-only and dual offenders' are considered largely distinct offence categories, it is often difficult to be clear, using the identified literature, about which research findings relate to which category.
- **The relationship between different types of offending:** Research is inconclusive on the link between online-only offending and contact offending. The Behavioural Analysis Unit at the FBI conducted an archival review, which found that 38 per cent of cases involved dual or multiple forms of offending, where perpetrators who possessed online images had also undertaken another sexual crime against a child (online and/or offline).
- **Fantasy and virtual offending:** Fantasy and virtual offending relates to the creation and viewing of pseudo-images of CSA or scenarios depicting illegal sexual activity when in fact individuals are above the age of sexual consent. The search terms used in this rapid evidence assessment did not identify any research on how the viewing or possession of pseudo-images relates to other CSA offences.

Identifying and targeting victims

- **Social networking sites (SNSs):** Research has found that SNSs are used to initiate sexual interactions, provide a means of private communication between victims and perpetrators, access and disseminate information about or pictures of the victim, and get in touch with victims' friends.
- **Targeting victims:** Historically, contact CSA was seen as the goal of soliciting children for sexual purposes; however some perpetrators of online-facilitated CSA undertake this process as an end in itself.
- **Contacting victims:** Research provides evidence of an increasingly IT literate perpetrator sub-population who are not only aware that what they are doing is criminal, but also know how to use tactics and techniques that allow them to continue offending without detection for as long as possible. The absence of literature focusing on CSA facilitated by multi-player gaming through consoles, and on discussion of specific SNSs, is notable.

Self-generated images and peer offences

- **Peer-on-peer online-facilitated sexual abuse:** Though there is extensive literature about contact peer-on-peer sexual abuse among children, there is as yet little empirical research into online peer sexual abuse among children and young people.
- **'Sexting' and CSA:** A limited number of studies retained through the rapid evidence assessment scrutiny process directly discussed sexting. Victims can suffer a spiral of loss of control due to sexting, whereby user-generated content made by young people and placed on the internet can lead to far-reaching consequences for young people, including becoming a victim or being labelled a perpetrator.

The role of institutions

- **Prevention of online-facilitated CSA:** The literature suggests that there is no strong evidence to support a 'sure' strategy or programme preventing online CSA. It also ascertains that to combat online CSA, a unified and multi-disciplinary approach must be taken. In the UK, governmental bodies such as the CEOP bring together good practice and research; within Europe, Europol acts as a European hub to combat cybercrime, including online CSA.
- **Detection of online-facilitated CSA:** The Internet Watch Foundation (IWF) operates nationally in the UK working on the removal of CSA materials online and to raise awareness within the technology industry regarding this issue. The Home Office Child Abuse Image Database (CAID) brings images together from the police and the National Crime Agency (NCA) in order to assist investigating law enforcement authorities. Recent research has found many police officers do not feel prepared to deal with online CSA cases.
- **Assessment of online-facilitated CSA offenders:** Risk assessments of perpetrators occur across all crime types and allow professionals to assess the likelihood of re-offending of specific individuals while identifying their needs for

rehabilitation and treatment responsiveness. Valid, reliable tools for assessing perpetrators operating solely online are limited and assessing whether those convicted of the possession of CSA materials present a risk of committing contact offences is not possible through existing assessment methods.

- **The treatment of online-facilitated CSA offenders:** The research reviewed suggests that perpetrators of online CSA driven by a sexual interest in children and anti-social beliefs (individual views contrary to normative codes of ethics and morality held in society) should be assessed and treated in similar ways to established programmes for contact sexual offenders. There is some argument that different types of treatment may be more effective for different types of perpetrators. This is one of the purposes of creating typologies and in understanding offence motivations, but also in assisting law enforcement agencies with investigations and in forging prevention messages and initiatives for children and young people.

1 Introduction

1.1 The Independent Inquiry into Child Sexual Abuse

The aim of the Independent Inquiry into Child Sexual Abuse (IICSA, or ‘the Inquiry’) is to investigate whether public bodies and other non-state institutions have taken seriously their responsibility to protect children from sexual abuse in England and Wales, and to make meaningful recommendations for change, to help ensure that children now and in the future are better protected from sexual abuse. CSA involves forcing or enticing a child or young person under the age of 18 to take part in sexual activities. It includes contact and non-contact abuse, such as involving children in looking at, or in the production of, sexual images, watching sexual activities, encouraging children to behave in sexually inappropriate ways, or grooming a child in preparation for abuse including via the internet.

The Inquiry has launched 13 investigations into a broad range of institutions. The investigations will give a voice to victims and survivors of CSA, enable the Inquiry to understand how institutions have failed to protect children from sexual abuse and make practical recommendations to ensure better institutional protection for children in the future.

One of the investigations focuses on the responses of public and non-state institutions to CSA and exploitation facilitated by the internet. This is referred to as the Internet Investigation.

The Internet Investigation is exploring the nature and extent of the use of the internet and other digital communications technology to facilitate CSA. In addition, the Investigation will look at the adequacy of government policy and statutory and regulatory frameworks to protect children from sexual abuse facilitated by the internet. Finally it will explore the response of law enforcement agencies, the criminal justice system and the technology industry, including internet service providers (ISPs), providers of online platforms and other relevant software companies, to CSA facilitated by the internet.

1.2 ICT and CSA

ICT and the internet enable easy and quick communication through email and chat rooms, SNSs and smartphone applications. These technologies have allowed an interconnected society to develop that provides many benefits, but there are also potential negative effects. One particular area of risk concerns the sexual exploitation of children, directly and indirectly. Improving understanding of how perpetrators communicate with young people online could provide critical insight that can help prevent online sexual abuse. This report seeks to review contemporary research about the perpetrators of online CSA and their behaviours, characteristics and motivations.

Online-facilitated CSA is a sexual offence perpetrated against a child that involves the internet and ICT in some manner. This includes the collection and storage of CSA images on ICT devices (Wolak, Finkelhor and Mitchell, 2011). It also includes the online solicitation or grooming of children for sexual purposes, which is contacting a child (through ICT) with the intent of luring or inciting the child to engage in any sexual activity, whether online or offline, by any means (ECPAT International, 2016). The definition of an 'offence' is complicated by the growing phenomenon of 'sexting', as this often involves children voluntarily sharing sexually explicit images or text with online contacts through ICT. For example, nearly one-fifth of European children aged 11–16 have received peer-to-peer sexual messages through an online medium (Livingstone et al., 2011). This is not normally considered to be sexual abuse, though there have been cases of young people being prosecuted as perpetrators for sending images of themselves or passing on images of others (College of Policing, 2016). Consequentially, 'Outcome 21' was presented by the College of Policing in responding to this problematic increase in prosecutions. This is a police code that is used to record a criminal act but with no further action being taken. The police are able to move towards a non-punitive response for young-person produced sexual images and content in which there is no evidence of grooming, exploitation or criminality of any sort and is thought to be an appropriate operational and investigative way forward (College of Policing, 2016).

In this report, online-facilitated CSA refers to a select number of criminal offences. In line with the Inquiry terminology, this report uses the general term 'perpetrator of online CSA'. Where the report distinguishes between different types of perpetrator:

- 'Online offender' is used to refer to a perpetrator who has only offended online.
- 'Contact offender' is used, in contrast, to refer to a perpetrator who has had direct sexual contact with a child in the absence of any known online offence.
- 'Dual offender' is used to describe an individual who has committed both online CSA and a contact offence against a child.

Further information about these criminal sub-types is provided throughout this report.

Evidence suggests that perpetrators of online-facilitated CSA have broadly been using ICT to commit child abuse since the late 1980s in the UK (DeMarco et al., 2016). Interpol reported that through their ongoing investigations and collection of evidence into online CSA worldwide, more than half a million CSA images had been uploaded into their databases (images stored and shared for future police investigations on the Interpol servers), assisting with the identification of over 9,000 child victims and nearly 4,500 offenders across the sub-types of online offending discussed (Interpol, 2016). One estimation states that over 50,000 children and young people globally have been or are being abused through technology, whether it be via solicitation for a sexual encounter or coercion into producing CSA material (Quayle and Jones, 2011). There are particular caveats in representing online CSA including the facilitation of reporting (Davidson, Martellozzo and Lorenz, 2009) and increased global internet use. Additionally, statistical analysis often provides an image of known victimisation and offending so may not accurately reflect the true nature of vulnerable victims or undetected perpetrator behaviour (Balfe et al., 2015).

In 2015, the National Centre for Missing and Exploited Children in the USA reported that the information sent to them from ongoing investigations since 2002 suggested that more than 150 million images and videos depicting CSA were reported to their staff in the online space across the world (US Department of Justice, 2016). The IWF (2017) reported that in the year ending 2016 the European continent hosted the majority of web pages depicting CSA (60 per cent) and that 94 per cent of uniform resource locators (URLs) hosting material were on free to use services. A recent report from the Canadian Centre for Child Protection elevated this estimate, having identified 5.1 million unique web pages hosting CSA material over a six-week period (Ricci, 2017). Many of the estimates on the volume of the sexual images of children and adolescents online are prone to a variety of methodological restrictions and limitations.

Certain organisations use technological tools such as web crawlers and hash and URL lists. Each of these tools provides a unique way to either identify illegal content online, or to block and prevent illegal content from appearing on the internet. Web crawlers are automated internet 'bots', which search cyberspace for predefined sources at a quicker rate than human-led proactive searching, therefore identifying illegal content more efficiently. URL lists function by blocking and filtering illegal content. Where ISPs are provided lists of known websites containing illegal content can be uploaded by the ISPs to prevent user access to these sites through their service. Hash lists involve 'hashing' illegal images, providing them with a unique code, which makes the content traceable and easier to identify and take down when posted on the internet. Some organisations implement more proactive human-based accounting, while others base their estimates on their own experience of working in the area of online child protection. Nonetheless, these aforementioned values are meant to highlight the sheer number and difficulties facing our institutions in dealing with the issues at hand.

Through the advancement of technologies, the quality, amount and type of pictures has changed, from still photographs to videos, to live webcams. Smith (2014) argues that perpetrators of online-facilitated CSA are increasingly disguising digital pathways leading to indecent and illegal content online through legitimate and legal internet sites. This can occur, for example, by placing links to illegal content on entirely legal adult-content websites. This prevents the legal adult-content page from being taken down or blocked, and permits perpetrators a gateway in accessing the illegal content. This reflects a trend for illegal content being hidden more professionally, shifting away from peer-to-peer networks into deeper parts of cyberspace, with a higher volume of CSA material being shared and published in forums on the darknet (the part of the internet that can only be accessed using non-standard software, configurations or authorisation) (Europol, 2016). At the same time law enforcement organisations argue that CSA material has become more difficult to identify because of anonymous browsing, end-to-end encryption and crypto-currencies (Europol 2015, 2016; Omand, 2015).

1.3 Research aims and objectives

In support of IICSA's Internet Investigation, the Inquiry has commissioned a rapid evidence assessment exploring the behaviours and characteristics of perpetrators of online-facilitated CSA. This research will assist IICSA in building on the evidence base

and identifying gaps in the literature, as well as potentially informing its recommendations to protect children and young people offline and online.

The aim of the rapid evidence assessment was to answer the question: what is known about the behaviour and characteristics of people who sexually abuse and exploit children, where such abuse is facilitated by the internet?

It considered how perpetrators use particular technologies, including social media platforms, peer-to-peer file sharing, live streaming or webcams, the darknet and The Onion Router (TOR) (freely available technology for enabling anonymous communication). In addition, the rapid evidence assessment sought to answer the following sub-questions:

- How does the availability of these technologies – and the availability and changing nature of social media – influence perpetrators' behaviour?
- How do perpetrators identify and target potential victims on different forums?
- What are the key safeguarding challenges for institutions raised by these new and developing technologies and associated perpetrator behaviour?

The rapid evidence assessment also sought to identify evidence regarding emerging types of offences, specifically those involving children's self-generated sexual images or material, including:

- the role of self-generated material in sexual solicitation, exploitation and abuse of children
- sexual extortion, where the threat of sharing self-generated sexual material is used to blackmail children into performing sexual acts, or other gains by the perpetrator
- offences in which self-generated sexual material shared freely online by children is identified and circulated by perpetrators with an interest in child sexual exploitation material

Lastly, the rapid evidence assessment aimed to capture information pertaining to:

- children who perpetrate online-facilitated sexual abuse against peers
- the relationship between different types of offending (internet-only offences and contact offences)
- pathways into offending

2 Methodology

The rapid evidence assessment was commissioned by IICSA as a way of generating a comprehensive picture of what is known in this area in a short time period. This chapter sets out the approach the research team took to undertaking the review, including setting out the different stages in the process.

2.1 Overview of approach

A rapid evidence assessment is an approach to collating, integrating and synthesising available and accessible research evidence on any given policy concept or issue comprehensively and within particular and limited time frames. According to Davies (2003), the aims and objectives of rapid evidence assessments are to:

- consider as widely and comprehensively (within policy and/or practice timetables) the electronic and print based literature
- integrate descriptive outlines of the evidence available on a particular topic
- critically evaluate the evidence identified
- identify, record and exclude evidence that is considered of poor quality
- summarise the information in its entirety and as it is linked to project-specific research questions

The rapid evidence assessment was conducted in four stages with a pilot stage prior to full data collection:

- identifying search terms
- selecting evidence
- screening and weighting evidence
- synthesising evidence

Each stage is described below.

2.2 Search term identification, criteria and pilot stage

The research team at NatCen drew on the work of Davidson et al. (2016) (outlined in DeMarco et al., 2016) exploring online-facilitated CSA across a range of themes, including offending behaviour. The search strings were designed to reflect the content of the research questions developed by IICSA, and capture relevant information across their research aims and objectives. These were developed by considering key words (and synonyms) that when combined would provide the research team with the highest probability of relevant returns. For example, in response to the research question: 'What is known about the behaviour and characteristics of people who sexually abuse or exploit children, where such abuse is facilitated by the internet?' the following string was developed to capture information on the internet, offenders and offence types:

(‘Internet’ OR ‘Technology’ OR ‘Online’) **AND** (‘Offender’ OR ‘Offender behaviour’) **AND** (‘Grooming’ OR ‘Grooming behaviour’ OR ‘Groomer’ OR ‘Abusing online’ OR ‘Images’ OR ‘Child indecent images’ OR ‘Image collection’ OR ‘Image production’ OR ‘Image distribution’ OR ‘Cybersex’ OR ‘child porn’ OR ‘Sexting’ OR ‘Typologies’)

Three strings were developed for each research question with a total of 15 search strings applied across the investigation. Three strings were chosen for each research question to include as complete coverage of different terminologies and semantics as possible in the searching process. A full list of the search strings is provided in Appendix A.

These search terms manifested in two forms: Boolean search strings that incorporated a range of key words and concepts, for example:

(‘Offender’ OR ‘Sex offender’ OR ‘Paedophile’ OR ‘Hebephile’) **AND** (‘Online child sexual abuse’ OR ‘Internet child victimisation’ OR ‘Online child victimisation’ OR ‘Online child victim’ OR ‘Cyber sexual abuse’ OR ‘Child porn’) **AND** (‘Prevalence’ OR ‘Frequency’ OR ‘Occurrence’ OR ‘Experience’ OR ‘Characteristics’ OR ‘Behaviour’)

Smaller ‘summary’ terms were broken down from the larger strings (for example internet sex offender; online child sexual abuse). These summary terms were created to address the possibility that the more specific search strings would not yield suitable volumes of literature. For example, if a search string input into Criminal Justice Abstracts yielded no returns, a summary search term would be input in order to verify nothing was missed or that there were other relevant returns. It is important to note that the vast majority of Boolean search strings employed when searching published academic literature returned results of variable quality, so the summary search terms were primarily used within grey literature websites in searching for returns.

The following electronic databases or equivalent online services were used in the literature search: PsycARTICLES, PsycINFO, HeinOnline, Web of Science and Criminal Justice Abstracts. Our second targeted source of information was a series of non-academic websites to acquire grey literature. This included focusing on government and third sector websites of organisations such as the Home Office, Ministry of Justice, Europol, CEOP, NSPCC and Barnardo’s. A complete list of targeted academic databases and grey literature sites can be found in Appendix B. Lastly, a call for literature was published and experts contacted. This latter step was undertaken to help acquire a range of harder-to-reach literature such as unpublished presentations, articles under review, or final reports for larger non-academic projects that may not be publicly available.

The purpose of the pilot was to test the strength and capabilities of the search strings and the inclusion and exclusion criteria, by assessing the volume and relevance of literature returned. The steps and processes outlined below were first carried out on a single database; then a short report on the findings, strengths and limitations of the approach was produced and shared with IICSA. Amendments to the methodology were suggested and implemented prior to data collection from the full range of databases.

The methodology was reapplied to the pilot database during the main data collection to ensure there were standard search parameters across all identified evidence repositories.

2.3 Evidence selection

Parameters and specifications determining inclusion and exclusion criteria for evidence were developed, such as documents having to be: written in English, published within the last five years, and accessible to the research team (for example on open access). All inclusion and exclusion criteria are listed in Appendix C.

Table A provides a summary of the content considered and the retention of literature at each stage of the scrutiny process. The overall exclusion rate of literature for this rapid evidence assessment (97 per cent) is similar to recent assessments conducted in the area of CSA (Horvath et al., 2013, 2014).

Table A Literature retention per phase of scrutiny

Source	Return	Title	Abstract or executive summary	Full read	Excluded
Academic databases	5,580	634	217	59	98%
Grey literature	62	62	62	62	0%
Call for literature	54	52	35	30	44%
Overall	5,696	748	314	151	97%

2.4 Evidence screening and weighting

The first level of screening involved simple title considerations, to check for relevance of the returned research to the overarching research questions. Abstracts and executive summaries were then considered. Lastly, any document still included was sourced for its complete version to be read in full and checked for relevance. Documentation not acquired in its full version was excluded because of time constraints, and to ensure quality assurance when integrating and synthesising the final report.

Once documents were screened for final inclusion in the analysis, their key information was entered into an extraction sheet, which organised the data in various categories: author(s), year released, country of origin and language, methodological approach, brief summary of content, information relevant to the research question, and a weight of evidence (WoE) score.

The WoE analysis used the approach first developed by the Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre), which has been applied when analysing both quantitative- and qualitative-based research. Each study was assessed by three criteria:

- quality assessment
- appropriateness of design and analysis for current research
- relevance of particular focus of study for current research

Using these criteria each piece of literature was scored as having low, medium or high relevance. The research team was briefed on the scoring process by the lead researcher and a training session was undertaken as part of the pilot process. The team discussed why particular elements and sources were scored in a particular way. The **quality assessment** score for each source was based on the clarity of its research questions, and the findings and coherence of the results in responding to its stated aims. The *appropriateness of design and analysis for current research* score dealt with an assessment of whether the source identified fit with the current rapid evidence assessment's aims, objectives and research questions. There was a focus on the rigour of the methodology and analysis and the interpretation of each particular study or source's finding, and how they fit with the ongoing rapid evidence assessment. The *relevance of particular focus of study for current research* assessment was based on the researcher's interpretation of the source's context and purpose, sampling, sample and neutrality of the data within the source, and the paper's association with the current rapid evidence assessment. The *overall* score provided was based on a consideration of the aforementioned three areas of assessment. Before final integration of retained information, two researchers independently considered a 10 per cent sample selection of returns to check the inclusion and exclusion criteria had been applied appropriately. This ensured a level of inter-rater reliability across the selection process. A similar process was applied in both Horvath et al.'s (2013, 2014) assessments.

A full scoring summary of the WoE for each source is provided in Appendix D. Sources identified as having a high overall WoE were considered in more depth in this report, with more lengthy and descriptive summaries included, whereas sources that had a low WoE were not included in such detail.

2.5 Evidence synthesis

In producing the final report, information collected to address each of the research questions was synthesised into thematic narratives. First, we attempted to organise the information in response to the research questions that each source addressed. This proved complicated as most of the literature was relevant to more than one of the research questions, so information within all sources that were identified across the data collection process was used in responding to relevant research questions, regardless of the search in which they were identified. Following integration of information, the narratives were embedded within chapters in the larger report and revisited to check the synthesis for quality, sensitivity, coherence and relevance.

Sources selected for inclusion in the final report were weighted as described in the previous section. The level of inclusion and detail provided for particular studies was based in part on their overall score as a product of weighting and in part as a response to the review process and narrative. While rapid evidence assessments may be structured with larger systematic and meta-analyses presented first, followed by single studies and then smaller opinion or literature pieces, this was not the case in the current report. Information was presented as a product of its overall score and its ability to speak to the wider research aims and objectives. A portion of the sources returned were assessed by two researchers, which added confidence that the selection, weighting and placement of information were appropriate in their current form.

The final stage of production of the report included three rounds of feedback: from the research team at IICSA, members of their academic advisory board, and two external peer reviewers with expertise on characteristics and behaviours of perpetrators of online-facilitated CSA. The feedback provided across all review phases was discussed with the IICSA team and internally at NatCen. Where appropriate, alterations, additions and amendments to the report were made.

3 Demographics and other characteristics

This chapter sets out the evidence about the demographic and other characteristics of perpetrators and how these relate to risk factors and offending behaviour.

3.1 Demographics

A total of 53 documents had data relevant to the demographic profile of perpetrators of online-facilitated CSA. The sources included but were not limited to evaluation research (of risk assessment tools, intervention programmes and community safety approaches for parents, teachers and children), primary quantitative and qualitative data, literature reviews and victimisation surveys capturing prevalence rates of being victimised. However, there was an absence of research specifically designed to collect robust and representative data about the demographic profile of perpetrators of online-facilitated CSA. Existing research lacked probability-based sampling or sufficient sample sizes for meaningful confidence intervals to be derived. It was therefore difficult to extrapolate the findings to the wider population, as groups were not comparable or large enough to have allowed a meaningful level of certainty. The vast majority (if not all) of the literature included in this review comprised samples in which perpetrators had either been successfully prosecuted or identified by law enforcement authorities, so they may not have been entirely representative of the offending population of online-facilitated CSA. Additional work is needed to explore unidentified offenders (those not caught) and those perpetrators who were not prosecuted.

In the studies assessed, perpetrators of online-facilitated CSA were mostly men (Aslan and Edelman, 2014; Buschman et al., 2010b; Lee et al., 2012; McManus et al., 2015; Tener, Wolak and Finkelhor, 2015) and predominantly from a Caucasian or European background (DeLong, Durkin and Hundesmarck, 2010; Briggs, Simon and Simonsen, 2011; Quayle and Jones, 2011; Houtepen, Sijtsema and Bogaerts, 2014; Magaletta et al., 2014; Shelton et al., 2016). Most studies did not distinguish between different types of offender. However, one study compared police records and arrests of perpetrators who either knew their victim before online sexual communication (n=139), or encountered their victim for the first time online (n=143). The authors found that the former group had a higher proportion of non-white offenders than the latter, though most offenders in both sub-samples were still white (Wolak and Finkelhor, 2013).

Lee et al. (2012) found the average age of online-facilitated CSA perpetrators was 41, with no significant difference in age across three sub-groups of online-only offenders, contact-only offenders and dual offenders. Similarly, the study by Buschman et al. (2010b) of dual and online-only offenders found an age range of 26–64 and a mean age of 41, while a review of the international literature by Houtepen, Sijtsema and Bogaerts (2014) reported that perpetrator ages ranged between 25 and 50 years. Van Gijn-Grosvenor and Lamb's (2016) sample of offenders who solicited children online for sexual purposes suggested that differences in the age of perpetrators was related to the victim's gender: perpetrators targeting girls were younger than those targeting

boys, their average ages being 29 and 41 respectively.

Whittle et al. (2013) argued that the research base was increasingly indicating that perpetrators who solicited children online for sexual purposes were, like contact sexual offenders, a heterogeneous group in terms of their age and other characteristics. Therefore (the authors argued) research into socio-demographics is more descriptive than inferential – research studies provided an illustration of sample make-up but are not necessarily appropriate for judgements on the wider perpetrator population associated with these crimes. However, from their analysis of victim self-report data in the USA, Wolak, Finkelhor and Mitchell (2011) suggested that between 2000 and 2006, the percentage of online-facilitated perpetrators aged between 18 and 25 years of age increased from 1 per cent to 20 per cent. It is possible that individuals are coming into contact with sexual imagery and CSA material at earlier ages, which may have an impact on their sexual preconceptions and anti-sociality, or ability to interact normally with others. Therefore additional research into the effect of the availability and exposure of young people to adult pornography on potential offending behaviour may also warrant future research (Martellozzo et al., 2016).

Other characteristics of perpetrators of online CSA that have been identified in the literature are that they are likely to be more technologically versed, in employment, and to have higher educational attainment than contact sexual offenders (Seto et al., 2012; Houtepen et al., 2014; Faust et al., 2015; Ly, Murphy and Fedoroff, 2016). However, Briggs, Simon and Simonsen (2011) discovered in their study of 51 online solicitation offenders a general range of 10–22 years of completed education in their mixed sample of contact-only and online-only offenders, with an average of 14 years of education and no significant differences between sub-groups. DeLong, Durkin and Hundesmarck (2010) reported from a study of police video interviews with 18 men who were arrested for attempting to solicit sex from a fictitious minor. There was a range of occupations, from a medical doctor to individuals who had not completed statutory education, though many of the sample were unemployed at the time of the research.

Having been sexually abused as a child is reported to be less frequent among online perpetrators of CSA material offences than contact offenders, with rates as low as 6 per cent for online-only offenders compared with 13 per cent for contact offenders (Nielssen et al., 2011). Faust et al. (2015) found a similar gap in their sample of American image-possession-only and contact-only offenders, with 11 per cent of the former group having experienced sexual abuse themselves as children compared with 17 per cent of the latter group.

Webb, Craissati and Keen (2007) conducted an exploratory study aiming to compare perpetrators of online-facilitated CSA (n=90) with perpetrators of contact CSA (n=120). Perpetrators of online-facilitated CSA were found to be younger than contact offenders; less likely to have experienced cohabitation in an intimate relationship, and more likely to have had reported psychological difficulties and engaged with mental health services in their adult years. Online-only offenders also reported fewer previous convictions linked to sexual offences. The contact-only offenders were significantly more likely to report physical abuse in their childhood and to demonstrate higher scores with general criminogenic factors such as anti-sociality and substance use at time of offending.

In applying the Stable 2000 risk assessment tool, internet-only offenders were found to have more issues with sexual self-regulation than the contact-only perpetrators, who in turn had more negative scores associated with attitudes towards sexual assaults. Of those perpetrators across both sub-groups who were followed up, the research indicated that online-facilitated CSA offenders were significantly more likely to engage with treatment and intervention post offence than contact-only offenders. This research although outside the inclusion criteria, was retained as a seminal piece of UK-based research in understanding the differences between online and contact-only offenders of CSA, and providing insight into early risk assessment of perpetrators of online-facilitated CSA.

Babchishin, Hanson and VanZuylen (2015) conducted a meta-analysis to compare the characteristics of perpetrators of online-facilitated CSA and contact-only CSA. They considered a sample of 30 studies published between 2003 and 2013, mostly from the USA, UK and Canada. Online-facilitated-only offenders had more indicators of 'internet use' than contact offenders. Indicators of 'internet use' were identified by the authors as elements of their socio-demographics such as being of a younger age, being in a higher income bracket and having a higher level of educational attainment. They also had a greater level of sexual deviancy but larger barriers to offending. In this study, the authors referred to sexual deviancy as the presence of constructs such as paedophilia, whereas barriers to offending were defined as the presence of factors such as greater victim empathy or minimal access to children. Contact offenders had more offence-supportive beliefs, victim empathy deficits and emotional identification with children. Contact offenders also had higher levels of non-sexual criminal histories and mental illness. Both groups were relatively similar in other psychological features.

3.2 Previous offending and recidivism

Much existing research suggests that perpetrators of online-facilitated CSA are less likely to have criminal backgrounds, previous convictions or prior anti-social histories than contact offenders (Wolak, Finkelhor and Mitchell, 2011; McManus et al., 2015; DeMarco et al., 2016; Long et al., 2016). In a quantitative analysis of closed cases, Shelton et al. (2016) showed that 25 per cent of perpetrators of online CSA had previous criminal histories (of any offence type) compared with nearly 50 per cent of contact offenders. Babchishin, Hanson and Hermann (2011) completed a comprehensive review of the literature on the perpetrators of online-facilitated CSA, in which they also concluded that online-facilitated offenders (comprising both online-only and dual offenders) were less likely to have criminal histories than contact-only comparators. However, Seto (2013) argues that research that does not distinguish between dual and online-only groups of perpetrators may miss important differences in behaviours and characteristics between the two groups.

In contrast to the research cited above, Navarro and Jasinski (2015) undertook secondary analysis on three groups of perpetrators from arrest records: online only with elements of solicitation (no contact), online only but no exploitation of a victim, and a group of men who were arrested for attempting to solicit a child or young person online in which the young person was actually an undercover police officer. The authors found that those perpetrators caught by undercover police officers posing as

children online were more likely to present with no prior arrest histories than the other two groups. The paper is defined within a framework of routine activity theory which explains criminal behaviour as a consequence of the interaction between individual demographics and situations or opportunities to offend rather than a consequence of other factors such as mental health or sexual attraction to children (Miró, 2014). As a result of this underlying theory, there is a greater focus on demographics characteristics within this study than in other research which adopts different theoretical approaches. This illustrates the issues with the lack of standardised terminologies across research, making it hard to compare the findings from different studies effectively.

Seto and Eke (2005) produced the first peer-reviewed publication about the recidivism of perpetrators of online-facilitated CSA. The study was based on the analysis of police case files and included access to live databases that could provide them with information about ongoing charges as time went on. They found that offenders who had any form of previous criminal history, sexual or not, were significantly more likely to re-offend sexually than those who did not have a previous criminal history. Eke, Seto and Williams (2011) were able to follow up this sample, finding that one-third re-offended in some manner, and of those re-offenders 4 per cent did so by conducting a contact offence and 7 per cent by a new online-facilitated offence. They also found that the younger the individual was at the time of a first offence the more likely their subsequent offence was a further sexual offence. This age-subsequent sexual offence link could be useful in developing treatment programmes targeting the potential offence-supportive beliefs these perpetrators may have developed or reinforced. Seto (2013) notes that this is unsurprising as age and criminal histories have been found to be strong predictors in the general criminological and psychological literature.

Osborn et al. (2010) investigated the utility of two actuarial measures in a UK community-based sample of convicted internet-only perpetrators (n=73). These individuals had been convicted for downloading CSA material, and two actuarial measures, Risk Matrix 2000 (RM2000) and Static-99, were applied in determining their risk of re-offending. None of the sample had any previous sexual offence records, online or offline, and none of the perpetrators were convicted for a further sexual offence in the 1.5–4-year follow-up period. However, in the application of the risk assessment measures, very few of the sample were categorised as low risk, leading the authors to conclude that the two measures overestimated rates of reconviction within samples of internet-only perpetrators. In applying a revised version of the Risk Matrix 2000 (RM2000R) where aggravating factors related to stranger victim and non-contact offences are omitted (as all of this sample were non-contact offenders), there is a significant drop of one risk category by nearly all the participants. These factors were omitted in consideration of the creation and purpose of the original RM2000. First, it was originally constructed and cross-validated on a sample of contact offenders. Second, and largely as a result of the previous point, many of the factors and items included on the RM2000 are for contact offenders, and not internet-only offenders. The drop in risk categorisation is an important finding regarding sentencing of internet-only offenders, as sentencing is heavily dependent on risk assessment and, as the authors argue, the current tools may not be entirely fit for purpose for these specific perpetrators. Further research with larger sample sizes and over a greater amount of time is merited.

3.3 Cognition and mental health

Sexual offenders of all types have historically been understood to have offence-supportive beliefs: beliefs, both implicit (subconscious or unknown to individual) and explicit (outwardly advocated), that misrepresent reality in order to provide justification for their anti-social behaviour. With perpetrators of online CSA, there is support for the existence of offence-supportive beliefs for both dual and online-facilitated only offenders (DeLong, Durkin and Hundersmarck, 2010; Elliott and Ashfield, 2011; Jung, Ennis and Malesky, 2012; Houtepen, Sijtsema and Bogaerts, 2014).

Offence-supportive beliefs occur where perpetrators see children as sexually desirable and images of children as not being harmful to the subjects of said images. These beliefs are important in understanding the perpetration of online-facilitated CSA as they provide insight into how the offenders perceive the commission of the offence (for example degree of harm to the victim; level of criminality) and how practitioners may target intervention and rehabilitative programmes (Kloess, Beech and Harkins, 2014). Perpetrators across offence types objectify their victims using CSA material available online. They may view children who appear in these materials as sexually sophisticated, particularly if material producers deliberately present the victims in such a way (Elliott, Beech and Mandeville-Norden, 2013). This means that perpetrators may not consider or see the harm as real or relevant to those children and adolescents depicted in the content.

There is a possibility that perpetrators also use CSA materials to normalise their behaviour, minimising or neutralising the effect it may have on their victims (Quayle et al. 2014). Minimisation and neutralisation refer to the perpetrators actions to reduce the harm he or she perceives that the victim is experiencing, thus rationalising their commission of the abuse (to themselves). Perpetrators may also use images as part of the process of soliciting children for sexual purposes, with the intention of lowering victims' inhibitions and stimulating sexualised interaction. The images themselves may permit perpetrators to preserve the fantasy of their 'ideal' sexual partner, creating long-lasting content which can be re-used and meet the perpetrators individual sexual needs but also, as will be discussed in subsequent sections, as a form of blackmail and extortion (Milligan, 2014). As above, references to perpetrator neutralisation and victim minimisation are present in the accounts of convicted perpetrators, where emphasis is removed from the offender and criminality of their actions, as is the damage and effect it may have had on the victim and survivor (Winder and Gough, 2010). This process may be reinforced by the online disinhibition effect (Faust et al., 2015), which is a theoretical explanation of how social interactions and behaviours may be different when human beings engage with each other over the internet as opposed to in real life (Suler, 2004). The online disinhibition effect attempts to explain internet behaviour by five characteristics:

- **Dissociative anonymity** is the belief that internet users' true identities are unknown to others in cyberspace. As a result, an individual feels that their actions online have no consequences in the outside world.
- **Asynchronicity** describes the process of time online. With various communication platforms at users' disposal, individuals communicate in a way

that suits their individual needs. This includes planning when to communicate, how and in what manner.

- **Solipsistic introjection** refers to the influence pre-existing personality traits and pre-held beliefs on content read online. Users influence the tone, meaning and delivery individually as they lack a face-to-face encounter in order to gauge cues.
- **Dissociative imagination** occurs where individuals reduce the gravity or significance of actions online because they are not occurring in the physical world.
- **Minimisation of status and authority** is the process of discounting the authority of individuals in cyberspace (for example adults, police) as they are not present in person.

These factors are important to our understanding of all forms of online-facilitated crimes, and may provide insight into perpetrators' rationale of behaviour when engaging in sexual offences.

Perpetrators of online-facilitated CSA have been shown to have higher scores on impression management (where perpetrators attempt to portray themselves more positively than they actually are to others) than the general population and offline offenders (Henry et al., 2010). They are seemingly also more likely to self-report the sexual objectification of children than contact sexual offenders (Aiken, Moran and Berry, 2011). Online offenders may see children and adolescents more uniquely as an instrument of sexual gratification than contact offenders.

Online-facilitated perpetrators appear to share many mental health disorders, psychopathology and psychopathic traits with perpetrators of contact CSA, as described in Schimmenti, Passanisi and Caretti (2014), including higher scores on the Psychopathy Checklist Revised, mood disorders and anti-social personality disorder. This is important when considering the implications for prevention and intervention programmes for dual offenders, as will be discussed in the final section of this report.

Lastly, Quayle (2010) observed dependent and narcissistic personality disorders, characterised by a propensity for fantasy and under-assertiveness, as common to perpetrators of online-facilitated CSA. Magaletta et al. (2014) showed that these same perpetrators had significantly higher levels of depression and borderline personality disorder, but lower levels of mania, than contact offenders. The perpetrators of online-facilitated CSA were also found to have lower levels of aggression than their contact-only equivalents (Magaletta et al., 2014).

3.4 Typologies of offenders

Understanding the desire driving perpetrator behaviour in online-facilitated CSA has assisted with defining more distinct criminal sub-types (for example image possessors versus image collectors; solicitation for a sexual encounter versus solicitation for online sexual gratification). It has also assisted mental health and criminal justice practitioners in developing more appropriate rehabilitation programmes. They have supported the police in identifying potential perpetrators. Elements of these motivations are often

captured in the construction of typologies, which has proven useful in bringing together a large range of data on motivations and other characteristics that are seen as co-occurring within particular individuals or situations. In the case of online-facilitated CSA, typologies provide broad classifications based on distinct criminogenic features that may assist a better understanding of the different types of perpetrators.

According to Lanning (1998),⁹ seven sub-types of individuals use ICT for crimes against children:

- **Situational ‘normal’ offenders** are likely to take risks and act impulsively while looking for sex online. They do not necessarily have a sexual preference for children.
- **Morally indiscriminate offenders** are likely to suffer from mental health issues such as personality disorders, and to come from criminal backgrounds or ongoing non-sexual criminal careers.
- **Profiteer offenders** abuse and/or produce material primarily for financial gain.
- **Preferential offenders** are attracted to children.
- **Diverse offenders** are experimental with their sexual preferences for children and include – but are not limited to – image producers, collectors, distributors, dual offenders and those who solicit children online for sexual purposes.
- **Latent offenders** are individuals whose interests are facilitated and whose behaviours disinhibited by the internet. These individuals are believed to have offended because of the online disinhibition feature of the internet.
- **Miscellaneous offenders** include individuals linked to investigative journalism and/or research who do not have the authority to access CSA content legally (they are not law enforcement officials).

Lanning based his typologies on his experience studying the criminal aspects of deviant sexual behaviour and interacting with investigators and prosecutors rather than as a result of a particular research study. At present there is no empirical data supporting their reliability and validity as diagnostic tools.

Lanning’s types focus on behaviour. In their typology, Alexy, Burgess and Baker (2005) focus on the criminal intent of online CSA, setting out three alternative perpetrator groupings:

- **Traders** collect images of children and distribute them through online networks using file-sharing technologies and anonymous groups. Convictions relate to possession or distribution of images but not contact offences, which feasibly could include solicitation without contact.
- **Travellers** travel to engage in contact offences; their online activities often

⁹ This source of information fell outside the methodological parameters for inclusion but has been included here as it was recommended in the call for literature, and is seminal in research about typologies.

include aspects of solicitation.

- **Trader-travellers** engage in both 'trading' and 'travelling'.

The above three typological categories are slightly dated as there has likely been a displacement from travelling for contact offences to live streaming, but nonetheless these categories are seen as congruent with more recent work (Aslan and Edlemann, 2014; Interpol, 2016). However, the focus is limited and does not offer insight into other factors, such as perpetrators' mental health, situational circumstances or demographics.

Building on Lanning's typologies among others in considering different theoretical frameworks, Elliott and Beech (2009) presented four types of perpetrators who may use the internet and engage in sexual crimes against children and adolescents:

- **Periodically prurient** perpetrators are individuals who engage with legal online sexual material more widely but may have impulsively or curiously viewed sexual images of children as part of their wider browsing behaviours. Some of these individuals may have been paedophilic – meaning that they had a sexual interest in children and/or adolescents.
- **Fantasy-driven online-only** perpetrators are those individuals who access and distribute images of children with other perpetrators for sexual purposes, but are not known to have been apprehended or have engaged in a contact offence.
- **Direct victimisation** perpetrators use cyberspace and the internet for a wider, more organised method of online and offline (contact) offending, including online solicitation for the purpose of a direct physical encounter.
- **Commercial exploitation** perpetrators are those who engage with the production and distribution of images for financial gain.

There are seemingly three broader trends that begin to emerge among perpetrators: engaging with content due to risk-taking behaviour and impulsivity, having sexual preferences for children and adolescents, and being more generally oriented towards organised criminality and financial or monetary gain and producing and distributing online CSA material in order to reach these means. There are clearly other implications that need to be considered about particular typologies, including the frequency of engaging with content and the potential for crossing over from online-only offending to contact offences.

DeHart et al. (2017) analysed the transcripts of victim–perpetrator communication of 200 perpetrators who were communicating online in some manner (emails, chat rooms, social media) with undercover law enforcement officials posing as children or adolescents in the USA. The authors proposed four typologies as a result of the research:

- **Cybersex-only** perpetrators either expose themselves to their victims while communicating or seek to receive sexually explicit images or content. The perpetrators are interested in physical features of their victims and provide instructions on how to behave or act sexually while communicating online.

- These individuals tend to engage in sustained communication over several months, but never discuss any concrete plan to have a real-world encounter.
- **Schedulers** are perpetrators who attempt to schedule a meeting (for example time and place) for sexual purposes but are unlikely to expose themselves online. Instead, they request sexual images of the victim more often. The period of communication between the victim and the perpetrators is much shorter than for cybersex-only perpetrators.
 - **Cybersex schedulers** include those perpetrators who have both sustained communication with their victims, seek information about their physical features, and often masturbate in real time while online with the victims. They also plan (or attempt to plan) a meeting in the foreseeable future with the victim. Although these individuals share more similar features with the cybersex-only perpetrators, they are not likely actually to follow through with a meeting once planned with their victims. There is debate over whether imagining the encounter is part of their fantasy, or if there is genuine insecurity and fear of being caught.
 - **Buyers** are individuals who prioritise the schedule for meeting the victim and negotiate over exactly what types of actions or sexual behaviours they will engage in. Among these individuals are those who are seeking classified advertisements on notice boards and respond.

These typologies fit thematically with those discussed already in this chapter. A distinction emerges between anti-social behaviour, sexual gratification and financial influences, albeit with more of an overarching sexual outcome in DeHart et al. (2017). This research is useful in focusing priorities for the sort of support victims need (for example medical, psychological, mixed) and in resourcing investigations into different types of perpetrators. Additionally, a more contextual understanding of perpetrators' motivations as well as developing risk assessment tools and treatment programmes, and internet safety and awareness information for children and young people, could be beneficial.

Building on the previous foundations of Lanning (1998), Alexy, Burgess and Baker (2005) and Elliott and Beech (2009), which informed elements of DeHart et al. (2017), Webster et al. (2012) interviewed convicted perpetrators of online-facilitated CSA for the European Online Grooming Project. They provided additional detail to the typologies that related to respondents' histories of offending and the likelihood of progressing to contact:

- **Intimacy-seeking** perpetrators do not have previous convictions for sexual offending or engage in networking with other sexual offenders, and are unlikely to have CSA materials. They are likely to engage in intimate relationships with children and believe the contact to be consensual.
- **Adaptable style** perpetrators often have previous convictions for online CSA and view young people as mature and capable. They are not avid networkers or collectors of CSA materials. They adapt their approach according to the child being engaged in the grooming process and their reactions.
- **Hyper-sexualised** perpetrators tend to have significant collections of CSA materials and network extensively with other perpetrators of online CSA. They

use deception, and contact with young people is likely to progress rapidly to be of a sexual nature. Progression to contact offences with children is less likely with this type than other types of online solicitors because their primary motivation is rapid sexual gratification.

The above three typologies can be linked thematically. First, there are perpetrators who primarily access CSA material but do not seek contact. It is likely that these individuals act impulsively and are influenced by the online disinhibition effect, as discussed in the previous section. Second, there are perpetrators who view children as sexual objects, whose interest in children may be reinforced by CSA materials. These individuals may not necessarily see themselves as doing anything wrong but know society sees their behaviour as illegal and anti-social. It is possible that this second group of perpetrators could use the internet to reinforce their interest in children and adolescents for sexual purposes and also to fulfil their deviant sexual interests and behaviour through the availability of CSA material, though this is not the conclusion drawn by the authors of the typologies themselves. More research surrounding the availability of content and the escalation to contact offending is discussed in subsequent sections. Third, there are those who are primarily contact offenders and use ICT as a tool to perpetrate these offences. Lastly, there are organised criminals who see the abuse of children and the production of CSA materials as commodities leading to financial gain.

Merdian et al. (2013) explained the rationale of perpetrators of online CSA through the consideration of previous literature on typologies and empirical research on both contact and internet-only perpetrators. Across these perpetrator types, three clusters of contributory factors to offenders' behaviour emerged:

- historical: linked to the perpetrators' previous criminal histories and victimisation histories
- emotional: intimacy and relationship-seeking
- sexual: sexual preference for children and gratification through sexual communication and contact

The authors hypothesise that those who are (known) contact perpetrators attribute their motivation to sexual gratification. Perpetrators whose detected offences related only to the possession of CSA material (such as images or videos) often reported a mixture of the explanations noted above. Merdian et al. (2013) also noted that there were offenders who offered no clear explanation for their behaviour. These perpetrators were most likely to have the most debilitating offence-supportive beliefs and were perhaps unsure why they did what they did.

Merdian et al. (2016) analysed the findings from an online survey with 68 perpetrators from community and prison settings in New Zealand. These findings provided the first empirical evidence of the above mentioned contributory factors in Merdian et al. (2013). The findings also identified additional dimensions in understanding the difference between contact and internet-only offenders as well as potential sub-groups within each of these higher-level groupings. These sub-groups included having had direct sexual contact with young people; possessing CSA material; and having contact with other, like-minded perpetrators. Understanding the extent to which these three dimensions and influences are enmeshed within the perpetrators' behaviour is

important for risk assessment and tailor-making appropriate treatment programmes. They provide an additional amount of information on the motivations of perpetrators that can assist with differentiating between offenders, providing researchers and practitioners alike with a deeper understanding. Essentially this data provides further description and meta-data for already existent typologies, furthering what is known about the behaviours and characteristics of perpetrators of online-facilitated CSA.

In their study comparing contact-driven and fantasy-driven perpetrators of online CSA, Briggs, Simon and Simonsen (2011) found that only a minority of perpetrators engaged in cybersex interactions. Fantasy-driven perpetrators in this study are those who offend online only and use images and sexually explicit chat (with children) to achieve sexual gratification (Seto, 2016). These perpetrators also frequently engaged in exhibitionism, sending images of themselves engaged in various sexual behaviours, including masturbation, cross-dressing, bathing and having sex with a woman, to their victims. Approximately two-thirds of the fantasy-driven perpetrators, whose motivation was for sexual climax during cybersex rather than contact offending, did this, compared with 2 per cent of contact-driven offenders. Three fantasy-driven perpetrators initiated online contact while nude and in front of a web camera. A table summarising the key typologies presented here can be found in Appendix E.

Combined, the typologies and motivations presented in this section provide a complex picture of the perpetrators of online-facilitated CSA. Having presented some of the findings on the basic characteristics and behaviours of these individuals across offending sub-types in the earlier sections of this paper, this additional material provides another layer of complexity in understanding perpetration of these offences.

There are similarities that are useful, in which thematic clusters of motivation can be understood. There are some offenders whose behaviour is explained by pure criminal intent, whether it be to abuse children or for other criminal (financial) gain. It is likely that particular risk factors for these perpetrators are grounded in the larger criminological and forensic psychological literature. It also has implications for the nature and type of risk assessments and treatment plans that these individuals are responsive to on prosecution. Other individuals offend solely for the relationship with the young person, which in turn may be for sexual reasons exclusively, or for intimacy and rapport. These individuals have a sexual preference for children and/or adolescents so offend for dramatically different reasons than those described above. Again, risk assessments of these perpetrators inform practitioners working in the field of prevention and intervention, and treatment plans need to be adapted to meet these individuals' clinical and criminogenic needs. More on this will be discussed in the final section of this report. Lastly, there are those who do not offer any rationale or explanation as to why they committed their crime; more research can assist with understanding motivations and modus operandi.

A key element of all typologies is a belief that any single case or individual can be allocated to a particular category. However, there can be problems with adhering to the use of typologies in understanding criminal behaviour. For example, their use may lead to the application of pre-held beliefs in treating individuals, as opposed to allowing treatment programmes to be flexible and reflexive to the individual's more diverse needs. Additionally, law enforcement agencies may apply these classifications in

investigations inappropriately. Typologies, including those presented below, can be based on a relatively small sample sizes, which may limit their ecological validity – their ability to explain more generally what is being observed within perpetrator behaviour. Researchers must ensure that typologies emerging from qualitative research are developed with data that has captured a range of individuals with diverse characteristics and behaviours. Those working with typologies developed through quantitative research must consider sampling bias and response rates of participants while trying to ensure that the sample achieves particular levels of power to legitimise statistical analysis and significance.

Understanding what perpetrators of online CSA hope to achieve through their communication with children and young people is critical. Information on motivations for offending may be used to predict perpetrator pathways, including the potential for non-contact perpetrators to become contact perpetrators.

3.5 Victim characteristics

Contact offenders are often known by the victim and are people on whom children rely and depend, for example, a family friend or teacher; this is also the case for online CSA. Wolak and Finkelhor (2013) conducted retrospective telephone interviews with police officers (n=1,299) working on cases with perpetrators of online CSA and attempted to identify differences between those who knew their victims prior to soliciting online and those who did not (where both ended up meeting their victims for sexual encounters). The research was conducted in 2009 and involved telephone interviews with American law enforcement officials who had worked on an online-facilitated CSA case.

Three main differences between the groups were detected. First, the perpetrators that only knew their victim online were more likely to be from black and minority ethnic backgrounds, as were their victims. Second, these same perpetrators were more likely to use online secrecy and deception about themselves (for example their age and location) with their victims. Lastly, they were less likely to have criminal backgrounds and to have used substances in the past: 8 per cent of the offenders who only knew their victims online before contact were 17 years old or younger compared with 13 per cent who had known their victims before communicating with them online. Additionally, 89 per cent of the known-before sub-sample were acquaintances, with the remaining 11 per cent being a family member of the victim.

These findings are important in informing further work on age differentiations between offence types as well as possibly providing differentiating evidence on peer-on-peer offending such as differences in age group and gender of both perpetrators and victims. The paper does not identify exactly how a family member was defined or what relationship they had with the victim. This may reflect a general need to restructure e-safety awareness and learning for young people, bringing clarity to perpetrator identity and risk.

In most cases, perpetrators initiate conversations about sex with the child whom they are contacting. Dowdell, Burgess and Flores (2011) administered questionnaires to a

sample of online-only, dual and contact-only perpetrators of CSA as well as to nearly 4,000 middle school, high school and college students in the USA. They found that perpetrator-initiated sexual first contact (initiating a conversation that is sexual in nature) occurred more than 66 per cent of the time across all online platforms (Facebook, MySpace, Second Life) and age groups. The research also found that perpetrators preferred the slightly outdated MySpace medium whereas victims were more likely to use Facebook.

Whittle, Hamilton-Giachritsis and Beech (2013) conducted one of the first studies investigating the impact of online solicitation on children and adolescents. Recruiting eight British adolescent victims between the age of 13 and 18 (six girls and two boys), the study retrospectively investigated their victimisation between the ages of 12 and 14. Semi-structured interviews were conducted with each participant and thematic analysis was applied in order to identify commonalities and differences in their experiences. The authors found that the victims often spoke of consequences to their lives in a variety of ways, including for themselves, their families, their school lives, their friends, and their use of technology and the internet. These consequences could be positive (for example they implemented better internet safety, improved communication with parents) but also very negative (for example it led to abnormal sexual behaviour with partners, shame and embarrassment). Specifically, those young people who had a range of pre-existing risk factors (for example divorce in family or illness) experienced more negative consequences and impact following the abuse. This links in with a report by Davidson et al. (2016), presented below, which categorises young people according to their potential risk for solicitation and an unknown sexual encounter. Whittle et al. (2013) additionally discuss that those with the largest number of risk factors are also those who are more likely to have little to no support system at home; more work is needed to ensure that these more vulnerable children and adolescents are able to acquire resources to assist their post-offence recovery.

Wolak et al. (2010) argue that using deception and trickery to solicit or lure children into abuse situations is relatively infrequent. Most online-initiated CSA involves adult men seducing adolescents without hiding their identity. Some children are more at risk than others (for example those who have previously been abused, who are LGBTQ, are frequent chat room users or engage in more risky real-world behaviours).

Davidson et al. (2016) surveyed over 900 young adults from Ireland, the UK and Italy between the ages of 18 and 24, asking them about online and offline experiences in their adolescence. Following regression analysis, distinct groups of vulnerable adolescents were proposed:

- **Adapted adolescents** were resilient individuals who refused to engage with online solicitors. They had the ability to recognise risk and deflect any approach considered strange, and felt confident about rejecting advances from perpetrators.
- **Risk-taking aggressor adolescents**, similar to a 'risk-taking' group identified by Webster et al. (2012), were prepared to take risks and engage in sexualised interactions. They demonstrated more disinhibition and appeared to be more adventurous online than the adapted adolescents. Linking this to the perpetrator accounts, this group were at risk of blackmail and of being solicited for sexual

purposes following initial contact.

- **Inquisitive sexual youth**, seen as similar to Webster's 'vulnerable' group, were the most likely to interact with strangers online and appeared to be most at risk of online sexual abuse and ill-equipped to protect themselves. Offender accounts showed that this vulnerability was recognised and exploited during the solicitation process. This finding is supported by research by Quayle et al. (2012) undertaken with children solicited online for sexual abuse.

Cooper et al.'s (2016) literature review (n=88) on children and young people's role in the production of sexual images, or sexting, highlights important elements of risk that need considering as the research base evolves. The authors describe how sexting is manifesting in adolescent behaviour. The act of sexting and its consequences (implied and perceived) varies in the context of the message (for example whether intimate relationships or strangers), the meaning (for example sexual arousal versus risk-taking) and the intention. While the authors argue that sexting can be used as a normative part of a relationship, the variation along these three dimensions (context, meaning and intention) can provide practitioners with a great deal of information on potential levels of resilience and vulnerability to online sexual victimisation. A better understanding of these elements can assist with appropriately integrating the research on adolescent sexting behaviour into the appropriate narratives, such as sexual development, experimentation and peer-on-peer online-facilitated CSA and online solicitation. It can also provide insight into trends in adolescent behaviour, allowing practitioners to address issues surrounding sexual health, risk-taking and internet safety and awareness appropriately, which in turn may contribute to children and young people's resilience to sexual harm in the online sphere.

4 Influences of technology

This chapter explores the evidence about how technology has influenced perpetrators' behaviour, the relationship between different types of offending and pathways into offending.

4.1 Types of offender

The labelling of perpetrators as 'dual' offenders is based on an examination of self-report data and evidence of previous convictions. There are three categories of individuals who are classed as a 'dual' perpetrator:

- Individuals with a pre-existing contact offence who are arrested for possessing CSA materials on their ICT devices.
- Online offenders who are identified retrospectively as having committed a contact offence (or offences) when incriminating content is identified on their ICT devices.
- Individuals who possess CSA materials concurrently as they are arrested for a contact offence.

These explanations are, however, largely structured by the criminal justice process and may not provide a useful indication of the pathways and behaviours of perpetrators and how they transition from online to contact abuse or vice versa (Elliott, Beech and Mandeville-Norden, 2013), if at all. Although online-only, contact-only and dual offenders are considered largely as distinct offence categories, it is often difficult to be clear about which research findings relate to which category. Many studies attempt to draw out the differences between offending types but often characteristics are either similar for all types, or the research does not distinguish between the type of online offending further than at a superordinate level. This is in part because many of the characteristics and behaviours identified in research studies included about different types of perpetrators of online-facilitated CSA are similar, or the research investigations did not or could not delve deeper in differentiating between types. In addition, undetected offences among convicted samples may inaccurately represent and explain perpetrator types. For example, undetected image collections belonging to contact offenders would create biases in the statistics about the prevalence of offences, as these may not have been accounted for in official records. Further research is required to develop a better understanding of the overlap between different types of offending.

4.2 The relationship between different types of offending

Research is inconclusive on the link between online-only offending and contact offending, with some studies suggesting that the use of CSA material can escalate to contact sexual offences (Burgess, Carretta and Burgess, 2012) while others indicate that consuming such material is not a risk factor for committing a contact sexual

offence, at least not for those individuals without a prior history of contact CSA (Buschman et al., 2010a; Long, Alison and McManus, 2013). Across studies of perpetrators of online CSA, approximately one in ten has an officially known history of contact sexual offending (Seto, Hanson and Babchishin, 2011; Houtepen, Sijtsema and Bogaerts, 2014).

The Behavioural Analysis Unit at the FBI conducted an archival review of 251 online CSA cases to assess perpetrator behaviour and the link between CSA material possession and other sexual offences perpetrated against children. The research involved the analysis of case-related documentation in two time periods: 198 cases from 1996 to 2002, and a further 53 cases from 2010. The research team attempted to ensure that a proportionate number of cases were taken across FBI offices nationally to ensure representativeness of the sample. Trained specialist researchers sitting within the Behavioural Analysis Unit analysed the case material (for example criminal history records, sentencing information, physical evidence) . The evidence gathered by these researchers was placed onto a 60-question framework, which included a range of information on perpetrator demographics, mental health and criminal histories. The information within the frameworks was also subjected to inter-rater reliability, where a second researcher considered the evidence. This analysis revealed that 38 per cent of the cases involved ‘cross-over’ or dual offending, where perpetrators possessing online images also attempted another sexual crime against a child (online and/or offline). The authors argue that CSA material no longer exists in isolation from other offences, and that larger patterns of behaviours must be considered (Owens et al., 2016). This supports the view that online-only and dual perpetrators of CSA may no longer be distinct offenders but alter their behaviour as their individual perpetration of crimes increases.

Long et al. (2016) identified key statistically significant differences between dual and internet-only offenders by validating the Kent Internet Risk Assessment Tool Version 2 (KIRAT-2), which is discussed further in chapter 7. Their sample included nearly 400 individuals who had been convicted for online image-based offences across the UK. Dual offenders were more likely than their non-contact equivalents to have previously had any conviction for child sexual offences, producing indecent images, engaging in offline incitement, engaging in offline grooming, being alleged to have been involved in a CSA offence, having any type of incitement and grooming, taking indecent images of a child either in person or through their webcam, and having access to victims through the perpetrator’s friends or acquaintances. These differences are important in understanding the level of risk that different types of perpetrators may pose to the community but also assist in understanding motivations and facilitators that may be operating in the lives of the perpetrators. The co-occurrence of certain factors or the absence of others can assist researchers in better understanding why perpetrators are likely to behave in particular manners. These differences can be used to assess the risk of recidivism among offenders.

Gottschalk (2011) supports the idea that perpetrators of online CSA progress from lesser to more serious offences over time. There are four stages in his model:

- **Stage 1: Online consumers:** Perpetrators actively target specific sites to collect CSA material for personal use. They may either remain at this stage or

move on to the next.

- **Stage 2: Online communicators:** Perpetrators begin to browse the internet, actively searching for CSA material. They may join or participate in dedicated online networks of people with a sexual interest in children and begin using peer-to-peer networks, chat rooms, and/or interacting through ICT with victims. CSA materials may be collected for personal use, but are also exchanged with other perpetrators, both to gain entry into online forums and to add to collections for sexual gratification.
- **Stage 3: Online organisers:** Perpetrators actively network and engage with victims, with the ultimate goal of contact sexual abuse, lending pace to their behaviour. This is where a contact offence may occur, though many perpetrators remain confined to online activities.
- **Stage 4: Online producers:** Perpetrators produce images, videos and other records of incidents of abuse they carry out and distribute or exchange these with other perpetrators. Some do this for financial gain, and may go on to view abuse as a business, seeking to exploit and/or traffic children for profit.

This is a hypothetical model based on the author's expertise in understanding ICT in the workplace, and not offenders. This is reflected in the fact that it frames the process as a product of online behaviour as opposed to criminality and underlying behavioural characteristics. The model has not been tested empirically and further research is required in order to understand whether this escalation reflects what happens in practice.

When investigating why perpetrators move from online-only offences to contact offences, some theories suggest that individuals with a sexual interest in children may feel validated by communicating with like-minded individuals in online networks on both the clearnet and the darknet. This interaction may also encourage continued offending and the need for further gratification (Jung, Ennis and Malesky, 2012). Additionally, individuals may become desensitised as image collections increase and become more extreme, which in part may be explained by the online disinhibition effect (Houtepen et al., 2014). However, experts working in protecting children and young people online also believe that the anonymity and invisibility of the internet may serve to facilitate support networks for individuals with sexual interests in children who have not offended and do not wish to. These networks are believed to help these individuals manage their beliefs and behaviours (Riggio and Hecht, 2016).

Contact offending may also be encouraged by an implicit need to conform to the norms and values of online groups (Elliott, Beech and Mandeville-Norden, 2013). Some authors argue that the desire to maintain social connections and network with other like-minded individuals may influence online perpetrators to evolve their behaviour to contact offences (which could include the production of indecent content to trade or share) (Carr, 2010). The potential for conspiratorial behaviour and incitement by peers through these networks also cannot be ruled out (Whittle et al., 2013).

In contrast, Seto, Hanson and Babchishin (2011) claim that perpetrators of online CSA rarely transfer to contact offences. Following up perpetrators of online CSA six years after release, less than 5 per cent had been detected for a new non-CSA sexual crime. In fact, none of the sample had re-offended sexually (a small portion had committed

non-sexual offences). Seto (2013) does state that sexual offending recidivism rates for online-only offenders is higher than sexual offence rates seen from offending populations without previous sexual convictions – however caution is urged with these findings, in that the recidivism rates for perpetrators of online-facilitated CSA are still lower than for those who have already been convicted for a contact sexual offence perpetrated against a child.

In summary, the research findings about the cross-over offending between online and contact offences are mixed. The research studies conclude that most offenders do not cross over, or evolve from online-only to contact or dual offending, including recent work by Owens et al. (2016), which reported that only a significant minority of perpetrators had done so. However, an increasing number of studies are focusing on whether individuals at higher risk of making the transition from non-contact to contact offences can be identified, as is discussed further in chapter 7 on institutional responses. There is research that supports the potential cathartic, or psychologically relieving, effect of exposure to CSA material among perpetrators with sexual interests in children (Seto, 2013) in isolation of ever engaging in a contact offence. However, other research (Kettleborough and Merdian, 2017) suggests that engaging with CSA material online may be a ‘gateway’ crime to escalating sexual offending such as contact offences with children and adolescents. A particular limitation of these types of studies in better understanding the link between cross-over offending is the potential for undetected crime, both online and offline. Police investigations have no sure way to detect the entire offending repertoire of perpetrators, and it is possible that some acts are not disclosed or identified in the investigation. Therefore research based on case files and perpetrators who have been apprehended and charged for specific crimes may be affected by an underlying, unknown level of other sexual criminality.

4.3 Fantasy and virtual offending

Fantasy and virtual offending relates to the creation and viewing of fictional abuse images of children, including lifelike virtual images created without any children being involved (Elliott, 2011), and those that mix different elements and/or combinations of separate pictures to suit the user’s preferences (Beech et al., 2008). It can also include primarily adult pornographic material that uses themes and depictions suggesting youth qualities, such as innocent teens or first-timers (Seto, 2013). Although this may not be illegal or addressed by national or international law, the Budapest Convention and EU Directive 2001/03 refer to the appearance of being a minor within their explanations of what constitutes online images of CSA (ECPAT International, 2016).

Four typical methods are used in the creation of pseudo-images:

- Photographs of children are altered to sexualise them (for instance, removing clothes).
- Adult pornography is altered to give subjects child-like features.
- The image of a minor is placed or photoshopped into adult pornography.
- A montage of abusive images is made, depicting a narrative or story.

Section 62 of the Coroner’s and Justice Act 2009 makes the possession of pseudo-

images illegal, carrying a maximum penalty of three years' imprisonment. It is worth noting that pseudo-images are not illegal in all jurisdictions but are covered by the Budapest Convention for its 56 signatories. Seto (2013) controversially suggests that pseudo-images could be legalised on the grounds that they provide an outlet for people with an interest in viewing sexual images of children without creating a market for CSA, and/or that such images could be used in treatment. The search terms used in this rapid evidence assessment did not identify any research on how the viewing or possession of pseudo-images relates to viewing non-pseudo CSA material or other CSA offences.

5 Identifying and targeting victims

This chapter discusses the evidence relating to how offenders identify and target potential victims.

5.1 Social networking sites

Mitchell et al. (2010) examined the role SNSs played in the perpetration of the sexual offence. They found that SNSs were used to initiate sexual relationships, provide a means of private communication between victims and perpetrators of online CSA without repercussion or interference, access and disseminate information or pictures about the victim, and get in touch with victims' friends. While this sample was from the USA, many of the tactics reported are congruent with motivations and techniques reported in relation to UK perpetrators. In particular, their emphasis on the importance of private communication in bringing a young person from a public area in cyberspace to one in which they are more vulnerable may assist with forging better online safety and online awareness campaigns for children and adolescents. While children and young people may not want to be told who to interact with online, empowering them with information about online solicitation, such as urging them to become more private in communicating, may be an influential and durable message.

Bergen et al. (2014) claimed that when a perpetrator suggests using online and offline secrecy to a child, it increased the likelihood of an adult meeting them for a real-world sexual encounter.

5.2 Targeting victims

Historically, contact sexual abuse was seen as the goal of soliciting children for sexual purposes, but this activity has been found to have changed drastically with technological developments and does not always culminate in a contact offence. Some perpetrators of online-facilitated CSA undertake this process as an end in itself with no intention of engaging in a contact offence (Martellozzo, 2015), while others work towards an alternative online outcome that they may find sexually gratifying (Webster et al., 2012). For example, this may involve carrying out sex acts through live streaming, or the sharing of photographs and/or videos between the perpetrator and victim.

Williams, Elliott and Beech (2013) applied thematic analysis to the transcripts of online solicitors in the USA to understand key processes that occur in the first hours of the solicitation process. Using volunteers working for an organisation aimed at preventing online CSA, these undercover adults posed as children and adolescents in conversing with perpetrators of online CSA. All transcripts included in the analysis originated from conversations that concluded with the perpetrator being convicted. Three primary themes were identified as tactics employed by the perpetrators in beginning the grooming process:

- **Rapport building:** perpetrators attempt to create a bond and friendship with the child or adolescent by coordinating their own role in the conversation, including speaking in language and styles similar to the victim; the mutuality of shared interests and discussion points with the young person; and positivity by demonstrating friendliness, warmth and empathy to the target victim. These processes help create the sensation of a safe, welcoming and non-threatening environment for the young person.
- **Sexual content:** perpetrators insert sexual content into the conversation while maintaining its centrality and escalating its meaning as the processes evolves. Various techniques can be used such as requesting the victim to use fantasy and their imagination, or by disguising its inclusion by providing advice.
- **Assessment:** perpetrators make a risk assessment of the victim and their online environment. The perpetrator verifies the victim's trust and continued interest in the sexual endeavour. Apathy or hesitation may mean that the child or young person is losing interest or may report the communication to an adult. At the same time, the perpetrator assesses the online platform for signs of detection and information (asking when the child will be home alone; whether anyone has access to their passwords) and further opportunity for sexual abuse.

The Williams, Elliott and Beech (2013) study provided good evidence of the process online solicitation follows in the first hour of conversation. Many of these elements, such as rapport building and assessment, can be found in other explanatory models. The process can often take place over more than an hour of initial conversation. Webster et al. (2012) provide their model of the online solicitation of children for sexual purposes, developed through the thematic analysis of data collected from interviews with online-facilitated CSA perpetrators. The way individuals move through the online solicitation process is affected by six factors, outlined below, that vary among perpetrators, depending on many of the motivations and rationales discussed in previous chapters:

- **Perpetrator vulnerability** refers to stressors and life events experienced by the perpetrator that are believed to have contributed to their desire to communicate or engage with minors online. Vulnerability may come from a wide range of experiences, including but not limited to an historical experience of physical, sexual or other child abuse, peer rejection, failed intimacy, mental illness, or previous engagement with CSA material of children.
- **Scanning** refers to ways in which perpetrators scrutinise online channels for child activity. This scanning activity could include searching for virtual representation of sex (cybersex, sexual screen names), indications of romance, intimacy or a potential relationship text or content referring to the search for a partner or someone to make them happy), and finally content such as erotic images, poses or suggestive content.
- **Identity** is developed online by perpetrators to fit their purpose. This can often involve deception and trickery, though this is not always the case, as suggested by research considered elsewhere in this report.
- **Contact** is made with potential victims through a range of mediums and manners. Different platforms or technologies (such as SNSs or chat rooms) are

used in different ways and frequencies (copy and paste to multiple victims simultaneously; tailor-made for individuals). Different amounts of resources are invested in the contact.

- **Intensity** depends on how the perpetrator engages. This could involve sharing sexually explicit photographs or videos as well as using sexualised language in an attempt to disinhibit the victim and normalise this kind of interaction. Incentives are also often provided to reward victim compliance. The authors note that threats to distribute shared materials, such as pictures or transcripts of previous conversations between victim and perpetrator, can serve as incentives to secure victims' continued compliance.
- The **outcome** of the process depends on the overall goals of the offender. As discussed in previous sections, these may be sexual gratification or the establishment of a perceived relationship online or offline. Research indicates that it is rare for the outcome to be sadistic or violent behaviour (Wolak et al., 2010).

Elliott (2017) integrated the theories proposed by Webster et al. (2012) on groomers – Olson et al.'s (2007) theory of luring communications – and O'Connell's (2003) model of 'cyberexploitation'. He proposed a model of self-regulation within the grooming process with two distinct phases.¹⁰ Elliot's work considered key features from the above models in understanding the online solicitation process, including:

- **a cause–action effect goal-motivated framework** explaining perpetrator behaviour as directed towards the perpetrator and achieving particular desired outcomes
- **a self-regulatory feedback system**, which explains changing tactics and behaviour in response to reaching the perpetrators' desired outcomes while managing the risk of failure
- **influence of external influences**, which considers how features such as parents or caregivers returning home or victims proactively engaging with perpetrators influence the process
- **victim–offender relationship forming**, including how the perpetrator and victim develop mutual trust and understanding
- **the influence of reinforcing and coercive incentives** used by the perpetrator in progressing towards goal achievement (for example sexual touching, sharing images); this can be in the form of reinforcing the sexual behaviour as healthy, educational or normal
- **the effect of risk-management strategies** by the perpetrator in achieving their goals; risk aversive practices may delay goal achievement whereas overly risky strategies may lead to cessation of communication with the victim or apprehension by law enforcement

¹⁰ Neither Olson et al. (2007) nor O'Connell (2003) were identified through the collection of literature in this rapid evidence assessment, so neither of these publications were synthesised into this report.

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- **a discrete desensitisation process** that allows the perpetrator to control the introduction of goal-related information or activities (for example sharing sexual images) to optimise the likelihood of goal achievement

Elliott (2017) proposed a process of online solicitation with two distinct phases. First, these crimes have a potentiality phase defined by four key behavioural processes. These are rapport building by the offender with the victim, incentivising the victim in communication, disinhibiting actions, and offender security-management. These four processes are intended to structure an online environment for the offender that catalyses the achievement of their criminal and sexual goals. A second disclosure phase seeks to benefit from those favourable circumstances described above, and introduces goal-relevant information and actions in a structured and analytic way, ultimately to desensitise the victim to the perpetrator's goals (ultimately, sexual offending). The model applies learning and reaction, as well as perpetrator dynamic self-regulation (unconscious or unintended learning), as the solicitation process is carried out. The model has not been tested empirically, but provides a good framework to bring together multiple research and generalise the work more widely across perpetrators of online-facilitated CSA.

Perpetrators use various forms of manipulation and deception to assist in isolating the victim from their social support networks. Once engaged in regular contact, some perpetrators insist on an adherence to secrecy about their communication and use acts of kindness and flattery to keep the victim engaged (Whittle, Hamilton-Giachritsis and Beech, 2015). Perpetrators use these techniques to make victims feel familiar, loved and trusted, perhaps positively influencing their self-esteem and confidence. Engaging victims emotionally in this way can serve as a powerful mechanism in reducing their control, and potentially isolating them from their families and friends (Whittle, Hamilton-Giachritsis and Beech, 2013).

The way in which offenders target victims online depends both on their level of skill in using ICT and their purpose or motivation to offend. The typology below of different sorts of perpetrator was developed by considering case reports given by 75 law enforcement officers (Tener, Wolak and Finkelhor, 2015):

- **Expert** perpetrators are a diverse group comprising individuals who meet their victims both online and offline. They decide whether to fabricate identities or use their true profiles through interactions with their victims. The online sexual relationships between perpetrator and victim may occur almost immediately or develop over time through a solicitation process. The relationship between the perpetrators and victim is believed to be reciprocal by both parties. These individuals demonstrate expert skills in the use of ICT in their offending.
- **Cynical** perpetrators often know their victims in the 'real' world prior to offending. Like the 'expert' perpetrators, they use different identities online interchangeably, though this may not make a difference in their offending as they often know their victims. Again, the sexual relationship may begin quickly. These individuals seemingly have consensual relationships with their victims in the early stages of abuse. Their ICT skills, described by the authors as moderate to low, are less than those of the 'experts'.

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- **Affection-focused** perpetrators meet their victims online and move towards a real-world encounter. They present their true identities and the sexual relationships begin gradually and are perceived to be consensual by the perpetrator. Their ICT ability is rated as low.
 - **Sex-focused** perpetrators expedite the entire process. Online meetings progress rapidly to a face-to-face encounter in which true identities are presented, and the relationship is instantaneously sexualised. Relationships with victims are perceived to be consensual and these perpetrators have low ICT ability.

Though drawn from a sample in the USA, this typology may be useful for UK intervention and prevention programmes. In particular, it may assist in developing targeted interventions responding to perpetrators using different technological mediums depending on skill and modus operandi.

5.3 Contacting victims

The way perpetrators use technology and online spaces to facilitate their offences includes creating virtual communities to interact with like-minded individuals (and sometimes potential victims) as well as facilitating the collecting and distribution of images. The use of encryption technologies and anonymous browsing such as TOR was identified as a means of hiding online activities and sharing illegal content securely (Jardine, 2015; Omand, 2015). In addition, there is evidence of criminality on the clearnet; Cohen-Almagor (2013) found that everyday platforms and hosting sites including GigaTribe, Google and Yahoo! servers were being used to host user-generated websites; Internet Relay Chat was used to share the content of hard drives via File Transfer Protocol (FTP); and peer-to-peer networks including LimeWire, Kazaa and eMule were used for the distribution of content.

The wide range of overt and covert mediums and platforms used to engage in online CSA is evident. With time, some of these technologies will become obsolete while others will emerge. The absence of literature focusing on multi-player gaming through consoles and discussion of particular SNSs is notable. It may be that such information has not been included in responding to this rapid evidence assessment's call for literature, or that research in these areas is generalised in the overall narrative of perpetrator behaviour and not discussed discretely.

Quayle et al. (2014) conducted interviews with a sample of male perpetrators of online-facilitated CSA who solicited their victims and had used various platforms on the internet (for example SNSs, chat rooms) to create private, personal spaces to offend. They found that the internet provided offenders with a pool of potential victims to interact with and practise their online communication skills. The consequence for failure (rejection) was not considered threatening, as the highest risk was that the young person would cease engaging in conversation with the perpetrator. The perpetrators felt they did not need worry about the potential of being caught or detected by law enforcement. Perpetrators kept their online communication with young people separate from their daily routines, for example by using the internet at times they knew they would be less likely to get caught. They reported shifting their discussions with victims

from public platforms to private communication channels such as texting and private messaging. Exposure (sending images of themselves) was more important or desired by perpetrators than receiving images from children.

Technology also afforded the opportunity to contact and communicate with multiple victims simultaneously within a discrete period of time, dropping the ones who did not respond and engaging with others thought to be easier to victimise. This advantage of technology is corroborated by Webster et al. (2012) who indicate that offenders can be communicating with up to 'a few hundred' young people at a time. The Webster et al. study provides a deep understanding of how and why perpetrators use the internet for both solicitation and sexual gratification with no intent to meet. It also provides evidence of an increasingly IT literate and knowing perpetrator sub-population who are not only aware that what they are doing is criminal, but also able to use tactics and techniques that allow them to continue offending without detection for as long as possible. This latter point is important in developing future criminal justice responses, including ensuring that the law enforcement authorities are appropriately equipped to deal with online CSA (Davidson et al., 2016).

Black et al. (2015) studied a sample of 44 adult males who were all arrested for arranging to meet children for sexual intercourse. They found thematic clusters of words, phrases and terms that were used throughout the process of soliciting sex from victims. The first cluster related to their efforts to develop and build a friendship. The second cluster related to attempting to focus on the more emotional elements of relationships. A third cluster related to queries about the susceptibility of their victim in reporting the perpetrator to the authorities, so in essence making a risk assessment of their ongoing communication with the young person. A fourth cluster related to attempts to make the conversation more private and exclusive. These thematic clusters are not seen as part of sequential steps, but rather could happen in a range of orders or in parallel to each other. Nearly two-thirds of the perpetrators in the study had no prior criminal arrest history. Of those who did have a prior arrest history, over half had a prior sexual offences charge against children and 11 per cent a previous charge for possessing CSA material.

Van Gijn-Grosvenor and Lamb (2016) found that offenders exposed themselves on webcams and switched on their webcams more often when conversing with girls than with boys. Only one offender exposed himself on the live webcam to a boy during the online contact. In addition, offenders who approached male victims tended to be older and the age they pretended to be was younger than was the case for offenders who approached girls. More emotional rapport was used with the girls; and the explicitness of the sexual intent was reduced, with more caution seemingly applied when engaging with girls, including using more concealed strategies.

Online contact can be initiated by children and young people when engaged with perpetrators, which may be a vulnerability factor in considering the likelihood of victimisation. The victim typologies presented by Webster et al. (2012) presented the 'risk-taking' victim who was described as confident, outgoing and extraverted. They believed that they were in control of the conversation and interaction with the perpetrators, and were complicit and consensual in sending and sharing content. The typologies by Davidson et al. (2016) and DeMarco et al. (2017) demonstrate varying

levels of risk among young people as a result of other online and offline behaviour. The 'inquisitive sexual' young person was described as being more susceptible to sexual requests online but also demonstrative of online risky behaviour through proactive discussion and engagement with strangers in the online space. Although neither of these studies question the nature of who initiated the conversation, it is important to note that the act of communicating first may signal a particular extreme level of vulnerability to online-facilitated perpetrators of CSA.

6 Self-generated images and peer offences

This chapter presents research on emerging sub-types of offences, including sexual extortion and the increasing problem of shared self-generated child sexual content. Ringrose et al. (2012) claim that 15–40 per cent of children and young people in England and Wales are engaging in sexting. It is understood that certain self-generated images of children and young people are the result of manipulation and coercion by adults and thus an outcome of online solicitation. It is difficult with the research base to differentiate between those images that are the result of child and adolescent behaviour independently of coercion, and those that are the result of online solicitation. We will continue to refer to the production of images by young people involving themselves as self-generated, but acknowledge this definitional complexity.

6.1 Peer online-facilitated sexual abuse

Online solicitation for sexual purposes by children against both same-aged and younger victims is a rising concern (Ashurst and McAlinden, 2015). McAlinden (2012) found that criminal justice stakeholders (including professionals working within child protection, victim support and sex offender management) reported that peer-to-peer online solicitation among 13- to 17-year-olds was a common occurrence. This research is in part supported by data published by the NSPCC (2016), which found an increase in reporting of online CSA where the perpetrator was a child or young person. In reporting on the increases of removing harmful child and adolescent content, the IWF (2017) and the CEOP (2013) note that law enforcement personnel are seeing a rise in the number of cases of online-facilitated CSA. Though there is extensive literature about contact peer sexual abuse among children, there is as yet little empirical research into online peer sexual abuse among children. It is not clear why this is the case, but may be related to the fact that online-facilitated CSA is a relatively recently phenomenon and the focus has tended to be on adult online-facilitated CSA.

6.2 Sexting and CSA

The area of peer online sexual activity that has received most attention in the literature is 'sexting', the act of sharing of self-generated images of a sexual nature through ICT devices. However the term sexting is a contested one. Some advocates suggest that it should be replaced by the term 'youth produced sexual images' and be categorised alongside CSA material content (Ahern and Mechling, 2013). They claim that young people are unaware of the risks and consequences of sexting, and the permanency of images being sent.

Overall, a limited number of studies were retained through the rapid evidence assessment scrutiny process directly discussed sexting, all of which were within the grey literature sources. This may be due to the nature of the search strategy for the current research, or alternatively due to its ambiguity within the criminal justice and

victimisation research. Some experts argue that content being shared between two consenting young people is an example of contemporary, developmentally appropriate experimental behaviour (Ybarra and Mitchell, 2014) and criminal sanctions should not apply. However, researchers note that distinguishing between what could be seen as normal developmental behaviour among adolescents and children and what is illegal is complicated. The initial purpose in producing or requesting images was not necessarily the same as the intended final destination of the content, whether it was a partner making the request, or an alternative, such as peers (Lorang, McNeil and Binder, 2016). It is recognised that sexting between peers could be considered abuse where content is shared without permission and where techniques of coercion and exploitation are used. An adult soliciting a child to produce and send self-generated sexual content is more clearly distinguished as online-facilitated CSA because of the age difference, apparent intent of the perpetrator and the content of the images or videos (Ringrose et al., 2012).

Wood et al. (2015) investigated the experiences of European adolescents (n=4,564) across five countries in the sending and receipt of sexual images and texts online. The quantitative analysis was complemented by a series of depth interviews with 100 of these young people. The survey focused on the adolescents' experience of violence in interpersonal relationships, online and offline; the sending and receipt of sexual content (images and text based); and basic socio-demographic variables such as gender and age. Overall, the authors found that most young people surveyed were not sharing sexual material online through their ICT devices, but the incidence in sending and receiving this material was higher than reported previous European research. They also found that the incidence of engaging with self-generated sexual material increased from early adolescence into the later years. The authors attribute this association between age and frequency with the development of intimate and romantic relationships in adolescents' lives as they go through puberty. They found clear differences between the behaviour of young people in northern European (Norway, UK) and southern European (Bulgaria, Italy, Cyprus), with a greater number of adolescents in the former countries reporting that they were sending and receiving sexual material. The authors note that this may be due to there being more liberal values on sexuality and the use of technology in the UK and Norway than in southern European countries.

The study found that most young people reported that sexting had a positive impact, however young women were more likely than young men to be pressured into sending sexually explicit material in relationships, and those who have previously experienced abusive intimate relationships were nearly twice as likely to send material. This latter point has implications for the gendered dynamic of sexual material in relationships, and the different experiences of young men and women. Overall the study supports the need for a deeper understanding of how this type of behaviour manifests online among adolescents, and the wider protective and vulnerability factors that different young people may be exposed to, while not necessarily supporting media concerns that sexting is a rampant problem (again, noting that most young people sampled were not engaging in sexting in their intimate relationships).

According to Wolak and Finkelhor (2011), sexting among children can be either 'aggravated' or 'experimental'. Experimental sexting is described as the sharing of sexual images in a mutual consensual, same-age relationship. Aggravated sexting

involves harassment and/or abuse, such as including an adult in the request or sharing of content or images without the consent of the sender for the purpose of sexual extortion.

Draper (2012) describes a spiral of loss of control when referring to sexting, where user-generated content made by young people and placed on the internet can lead to far-reaching consequences for young people, including becoming a victim of online CSA or being labelled a perpetrator. Other risky sexual behaviour associated with sexting includes early unprotected sex (Ringrose et al., 2012) and being victimised through 'revenge porn' (Smahel and Wright, 2014). Mitchell et al. (2012) discuss the range of harms that may result from the exchange of self-generated sexual images through social media and ICT devices and the often diverse motivations and intentions of young people in exchanging this content (for example revenge porn, to solicit sex, to bully).

Globally, sexting by children has led to an inconsistent set of laws and legislation, and continuous debate over the 'harm versus risk' paradigm focused on whether engaging in sexting actually harms young people in itself or creates the risk of victimisation by adults or peers (Livingstone, Haddon and Görzig, 2012). Risk is seen as the likelihood of something occurring to a young person online, where harm is the potential result of said occurrence. When sexting, young people have a potential risk of being exposed to sexual content online, or of generating content themselves, but it may be that the consequences of these actions are not harmful to them. Livingstone, Haddon and Görzig (2012) argue that engaging in risky behaviour can be developmentally appropriate and the young people who engage in risky online behaviour are not necessarily the ones who report more harmful online experiences. Therefore, it may be desirable for policy makers and practitioners to focus on harm reduction rather than risk reduction.

7 The role of institutions

This chapter sets out the evidence relating to the key safeguarding challenges for institutions raised by new technologies. It explores the opportunities available to different institutions to prevent, detect, disrupt or respond to online-facilitated CSA. At the time of writing (autumn 2017), there is a limited number of outcome evaluation research projects or programmes working at preventing and intervening in online-facilitated CSA; an exception is Think U Know (described below).

7.1 The prevention of online-facilitated CSA

Finkelhor (2009) states that there is no strong evidence to support a 'sure' strategy or programme preventing online CSA, but identifies the education sector as a primary focus for developing online safety awareness among children. He argues that those working in this sector should focus on making children aware of how to stay safe online and address activities such as sexting between peers and the consequences that may arise from this behaviour.

In the UK, CEOP's online safety education programme Think U Know is the first intervention in Europe to have been the subject of an external evaluation (Davidson, Martellozzo and Lorenz, 2009). The evaluation found that a high proportion of young people were unable to remember whether or not they had received Think U Know training, recall of safety messages seemed to fade over time, and the evidence did not suggest there was a relationship between having received Think U Know training and risk-taking behaviour. However, the evaluation found that young people who had received Think U Know training were more likely to report that they had experienced suspect behaviour either through Childline or Think U Know . The authors suggested that the website be made more young person friendly, interactive and less-text based. Young people recommended that one way to achieve the above was to include young people in the production, maintenance and delivery of the website. The authors also claimed that those children and young people who said that they have not had any recent or previous internet safety awareness were likely to have been affected, even if minimally, through engagement with the programme and research.

Davidson et al. (2016) conducted research with police officers across Europe. They argue that to combat online CSA a unified and multi-disciplinary approach must be taken, involving all organisations and partners concerned with the prevention of and intervention in response to these crimes. While police officers included in this research acknowledged that the police were inevitably the front-line responders to CSA, they felt that working partnerships with other organisations such as the ICT industry and education organisations was key to overcoming the barriers to effective prevention of online CSA successfully. Police officers in this study, and stakeholders across government, law enforcement and the technology industry, agreed that non-profit organisations have been very effective in supporting police forces with tools that may assist with monitoring the internet and managing the risks of online CSA, such as through the development and management of online reporting mechanisms; offline hotlines to report crimes or abuse; the development and implementation of algorithms

to detect CSA material; and fast-tracked data and information sharing between them and criminal justice agencies.

In light of these findings, Davidson et al. (2016) argue that these collaborations should be further strengthened through resource allocation and wider transparency of the partnerships in demonstrating good practice. Many of the current collaborations are based on long-standing relationships and shared agendas between organisations, which may work well in localised or geographically specific locations, but may not be generalisable or durable to change over time. Additionally, the lack of empirical research supporting these mechanisms means that long-standing or continuous income streams to support any initiative are often susceptible to policy shifts and resources availability. Without evidence-based research to support them, it is likely that they will not continue to be implemented or will lack joined-up approaches. Davidson et al. (2016) provide qualitative interviews from over 40 stakeholder interviews across Europe about the private sector's current endeavours in supporting non-profit and government entities in dealing with online CSA (for example an anonymous SNS has a dedicated and expedited line of communication for police forces worldwide and spends a great deal of time working closely with police training facilities in the UK).

Investigations of online CSA often require a range of professionals to work cooperatively in responding to particular cases. Examples highlighted in the Davidson et al. (2016) report include expert programmers and IT specialists, dedicated safety officers within social media and technology companies, psychologists for both investigator and victim support, legal experts in criminal and civil law, social workers, victim support workers, probation and school officers, and educational representatives.

In the UK, governmental bodies such as CEOP and affiliates including the UK Council for Child Internet Safety (UKCCIS) and its off-shoots such as the UKCCIS evidence group bring together good practice and research in the area of online CSA. CEOP is currently releasing new and ongoing awareness material for educators, schools and parents through its Think U Know resource portal discussed above, while the UKCCIS evidence group is currently bringing together a literature review on the risks young people face online including, but not limited to, sexual offending.

Europol acts as a European hub in combating cybercrime including online CSA (Davidson et al., 2016). Given the transnational nature of online CSA, Davidson et al. (2016) argue that it is critical to have a policing body capable of working across jurisdictions. Data sharing, storage, analysis and exchange are encouraged between member states in combating online CSA and are believed to facilitate better research and collaboration in developing prevention programmes. The European Cybercrime Centre was established in 2013 and operates Focal Point (FP) Twins with a focus on the policing and prevention of online CSA. FP Twins, which opened in 2001, brings together a group of law enforcement practitioners at Europol who support police in the member states of the European Union in combating online CSA. They provide training and research, and tackle the distribution and production of indecent content and travelling sexual offenders (Europol, 2015; 2016).

7.2 The detection of online-facilitated CSA

The IWF operates nationally in the UK working on the removal of CSA material of children online and in raising technology industry awareness on this issue. Under the IWF mission to ‘disrupt, prevent, protect and delete’, its services and activities are geared towards ensuring young people’s online experience is secure and safe. These include promoting self-regulation of web hosts and ISPs of illegal content but also issuing notice and take down requests to UK ISPs when indecent content is reported, and the construction, implementation and evolution of a URL list identifying illegal content (IWF, 2017). Notice and take down processes are diverse across the technology industry, but essentially involve a request (either with backing from appropriate criminal justice authorities or through the threat of taking further action) to a hosting site or ISP to remove content that is in some way illegal, such as CSA material (UNICEF and GSMA, 2016). Combined, these two processes help disrupt the ability of perpetrators to create and distribute illegal content, re-victimise young people and engage in solicitation activities. They also ensure that key partners and stakeholders are equipped with the knowledge and understanding of protection mechanisms. An evaluation of IWF’s work is currently under way by the Centre for Abuse and Trauma Studies at Middlesex University, with a finish date in March 2018.

The Home Office CAID, established in 2014, is the government’s equivalent of the IWF’s URL list, where images are brought together from the police and the NCA in order to assist investigating authorities, often UK police forces, in streamlining their processes. This enables them to use the technological features of the CSA material, known as ‘hashes’, to track content across platforms to identify illegal content, remove it promptly and assist with perpetrator identification and evidence collection (Home Office, 2015). At the time of writing (autumn 2017), there is no known evaluation of CAID’s utility or effectiveness, however representatives from the pilot forces in which CAID was trialled report positive reviews (Home Office, 2015). The CAID also shares images of CSA with the IWF for the application of hashes to the content, expanding illegal identifiable content through the IWF partner organisations.

Both the IWF and the CAID highlight the importance of technology in the prevention of online-facilitated CSA. The IWF in particular brings together over 100 industry partners such as Google, BT and Facebook among others in bringing together tech-based solutions. We have already discussed the growth of URL and hash lists in identifying and removing online sexual images of children. Through the IWF, associated members are able to download the URL and hash list daily in order to ensure that their respective services have the most current blocks, filters and tools at their disposal to protect users and potential victims from the redistribution of sexual images of children.

PhotoDNA by Microsoft is now available through a cloud-based service and, as with the hash lists produced by the IWF and CAID, allows for similar photographs to be identified across multiple sites in cyberspace. The hash and PhotoDNA technology is resistant to changes and alterations, making the durability of sexual images of children online shorter owing to officials’ capability to identify them more quickly across cyberspace. It is understood that the various hash-based systems do not always integrate with each other, so various organisations using different technology may have different hashes for the same content. It is suggested that more work be done to bring these resources together and improve data sharing to optimise prevention.

Seto (2013) argued that technological solutions such as those presented previously in this section may be the only sufficient and resource able solution to addressing online-facilitated CSA. He also suggested a joined-up-services approach from multiple agencies across different service providers and jurisdictions. These approaches would not prevent the production or initial distribution of sexual images of children, but would assist in preventing the prolonged existence of this content, and prevent re-victimisation through redistribution.

Transnational organisations such as Insafe-INHOPE focus on facilitating work that enhances efforts to identify victims and ensure they receive assistance, support and protection while also improving efforts to investigate cases of online CSA. They also aim to help identify and prosecute perpetrators and reduce the amount of CSA material available online. They can help address some of the difficulties police deal with associated with technological challenges, such as encryption and differences in legislation across countries with regard to online CSA, by bringing organisations together to ensure more proactive communication and information sharing between agencies in cases of victimisation (DeMarco et al., 2016).

Recent research completed across Europe by Davidson et al. (2016) illustrated the high volume of online CSA that comes to the attention of European police officers, but the lack of preparedness many of these officers feel in dealing effectively with these crimes. In the UK, most police officers across rank report having been involved with an online CSA case. Many felt ill-equipped to deal with the case appropriately and reported that the investigative training they had received was insufficient. Only groups of specially trained officers, such as those working in hi-tech crime units, felt well prepared to pursue these investigations.

Davidson et al.'s (2016) recommendations for improvements included introducing police officer secondments with technology firms to better understand user behaviour online, dedicated IT specialists from technology firms working with police forces, and improved training across cybercrime and evidence collection. There is evidence of improved cross-disciplinary collaboration and better working partnerships as communication is improved between organisations. For example, the National Police Chiefs Council and the IWF share a legal memorandum for the expedited sharing of information in cases of internet-facilitated sexual abuse; Childline operators are trained and prepared to deal with online sexual abuse in their calls; and CEOP's online reporting mechanism is increasingly used (CEOP, 2013).

7.3 The assessment of online-facilitated CSA offenders

Risk assessments of perpetrators are applied across criminal types and allow professionals to assess the likelihood of individuals re-offending while identifying their need for rehabilitation and treatment responsiveness. Actuarial and dynamic risk assessments with offender populations are used primarily to manage perpetrators of sexual offences post-conviction and to predict recidivism. They often involve collecting large amounts of information about offenders to allow experts working with them to have a better understanding of the risks they may present. This element of a risk

assessment involves an audit of the many individual, environmental and psychological factors that contribute to the risk of re-offending and the likelihood of desistance from crime and anti-social behaviour (Seto, 2016). Assessments are key in understanding the rehabilitative needs of perpetrators and supporting them in remaining crime free and managing their anti-social and deviant urges. Assessments can also assist in improving understanding of what information and messages should be developed and disseminated to parents, children and teachers about the online behaviours of perpetrators.

Long et al. (2016) studied risk assessment by examining police files across 11 UK police force areas relating to 374 individuals convicted between 2001 and 2013 for CSA material offences. They found that socio-demographic variables such as age, education and employment did not necessarily help police officers or academics in determining risk reliably or in differentiating between perpetrator types. The authors also found that previous criminal histories, unsupervised access to children and active online victim-seeking were better predictors in differentiating high risk from low risk offenders than any of the socio-demographic variables previously discussed.

Reliable tools for assessing perpetrators operating solely online are limited. In England and Wales, for example, perpetrators of online CSA are currently assessed using RM2000, which was designed to assess contact sexual offenders (Thornton et al., 2003; Osborn et al., 2010). Barnett, Wakeling and Howard (2010) examined four risk assessment scales used with convicted perpetrators of online-facilitated CSA in England and Wales, including three RM2000 scales (sexual offending, violent offending by sex offenders, and combination offending) as well as the Offender Group Reconviction Scale 3 (which is used in predicting general offending). In their sample of over 1,300 internet perpetrators who had either been released into the community following a prison sentence or had commenced a community sentence, one- and two-year (where possible) recidivism rates were collected where information was available on any criminal justice caution or conviction. As with previous research into perpetrators of online-facilitated CSA, recidivism rates were low and where another sexual offence was measured, over 75 per cent were internet-related. The authors concluded that all four sub-scales had adequate to good accuracy in predicting re-offending. However, as already discussed, the very low recidivism rates of internet-only offenders suggests that more critical comparisons and research is needed in this area of work, which should also look at undetected crime.

Assessing whether those guilty of possessing CSA material present a risk of committing contact offences is not possible through existing assessment methods (Brown and Kebbell, 2013; Seto, 2016). As work on the cross-over between non-contact and contact offences is inconclusive (as discussed earlier in this report), improving this assessment is challenging.

Seto and Eke (2015) have developed the Child Pornography Offender Risk Tool (CPORT) to predict any sexual recidivism or contact-specific sexual recidivism among adult male perpetrators with a conviction of an internet-only offence (however part of their sample included dual offenders). The sample in which the tool was developed included 286 perpetrators, with the CPORT building on previous work by Eke, Seto and Williams (2011) in identifying factors that accurately predict sexual re-offending

associated to online-facilitated CSA. Along with easily obtainable data such as demographics and criminal histories, the authors also completed an analysis of arrest reports, police interviews, image collections, previous risk assessments and investigative information from police reports, such as interviews with the perpetrators' family members in building the tool. Similar to the KIRAT-2, one of the main purposes of the CPORT was to provide law enforcement officials with a means of prioritising investigators' work. The predictive ability is also of use to other professionals, such as probation officers and psychologists, in working with perpetrators of online-facilitated CSA.

The CPORT consists of seven items which are dichotomously scored (present, absent) including:

- aged 35 years or younger at time of index offence
- any prior criminal history
- any re-offending
- any contact sexual offending
- indication of paedophilia or hebephilia
- more male than female-gendered content in image collections examined by police
- more male than female content in other collections seized (non-image)

In the five-year follow up with 266 of the perpetrators originally included in the development of the measure, 11 per cent committed a new offence (3 per cent contact; 9 per cent internet-only) in which their CPORT score was statistically considered a moderately strong predictor of sexual recidivism.

Seto and Eke (2015) highlighted a difficulty with implementing the CPORT and its utility in assessment. They were concerned that perpetrators would not self-report a sexual preference or interest in children (paedophilia or hebephilia). As an indication of paedophilia or hebephilia is one of the seven items on the CPORT, it is important to have reliable evidence in supporting its presence or absence. The authors reported that the likelihood, without clinical diagnosis or assessment, of a perpetrator admitting to a sexual preference in children was low.

Building on the findings from the validation of the CPORT, specifically that the admission by perpetrators of online-facilitated CSA of a sexual preference in children serves as a risk factor for any sexual recidivism, Seto and Eke (2017) developed the measure Correlates of Admission of Sexual Interest in Children (CASIC). The items on the CASIC are also marked dichotomously (yes, no) providing a score ranging from 0 to 6 in which the items were:

- never married
- content collections included videos depicting abuse
- content included (text-based) stories of the abuse of children
- interest in the sexual images of young people online evidenced as recurring over at least the previous two years
- volunteered in positions that have access to children

- had engaged in online communication with someone under the age of sexual consent, or with an undercover officer of a sexual nature.

The sample averaged 2.21 and individual scores correlated highly with the admission of sexual interest in children, potentially providing an alternative measure to those who may not be willing to admit to their interest for fears of consequences and sentencing.

The authors caution with both of the above findings that the measures have not been validated across different countries so need further work and testing. Different typologies of perpetrators of online-facilitated CSA would also merit more scrutiny and comparison in the future (for example dual offender versus image collectors). Additionally, other risk factors may be relevant that were not included in the tool construction and need further work, as well as alterations as new research emerges. However the CASIC provides a good assessment tool in the current context.

Davidson et al. (2016) argue that clear communication and effective collaboration between professionals specifically working with perpetrators of online CSA (such as social workers, probation officers and law enforcement officers) are essential to high-quality risk-management and multi-faceted, holistic risk-assessment programmes. In the UK, multi-agency public protection arrangements are used to manage perpetrators of sexual offences, but there is criticism of the associated processes for perpetrators of online-facilitated CSA, especially that the risk assessments and treatment plans involved lack specificity to offender types, and existing assessment measures have not been evaluated, nor tested for reliability and validity (DeMarco et al., 2016). There is also a need for appropriate risk assessment in light of the supposed increases in arrests and reporting of online CSA. In February 2017, Chief Constable Simon Bailey of Norfolk, the National Police Chiefs' Council lead on child protection, stated that more needed to be done to prioritise police resources in attending to high risk perpetrators of online-facilitated CSA (Sawer, 2017). The volume of offences linked to image-only offenders saturated police capacity and potentially led to difficulties in operational policing capacity. As previously stated in this report, most image-only online perpetrators are considered to be of low risk, so more appropriate risk assessment tools and policing prioritisation are needed in light of the increase in reporting of these crimes, and the changing resources and finances in policing.

7.4 The treatment of online-facilitated CSA offenders

Classifications of perpetrators of online CSA can assist criminal justice agencies such as prisons and probation in their approach to management and rehabilitation. Combining a range of empirical studies on different types of internet perpetrators of online CSA, Merdian et al. (2013) proposed that three dimensions must be considered: type of offending, motivation for offending, and situational and environmental context of offending, which were presented in the chapter on typologies in this report. Information along these dimensions may assist practitioners in identifying perpetrators' particular criminogenic and mental health needs and other tailored assessments and treatment options. The authors recommend that perpetrators of online CSA driven by a sexual

interest in children and anti-social beliefs should be assessed and treated in similar ways to perpetrators of contact sexual offences (against adults or children) using interventions such as sex offender treatment programmes (SOTPs) in the UK. SOTPs can be used in a range of criminal justice settings (for example custodial, community) and often focus on dealing with offence-supportive beliefs through challenging perpetrators' thinking patterns, victim empathy through victim perspective taking, considering wider community implications of their offending, relapse prevention through a self-assessment of risk, and strategy development for a non-offending lifestyle (Alexander, 1999; Hanson et al., 2002). These recommendations require further validation and testing before being implemented appropriately.

In the UK, cognitive behavioural therapy, a psychosocial intervention used in developing coping strategies in dealing with mental health problems, within a SOTP is considered the most appropriate treatment approach for contact offenders, and is widely available in prison settings. The use of the Internet Sex Offender Treatment Programme (i-SOTP) running in parallel with a SOTP but within probation is thus suggested for online-only offenders. Research suggests that the aims of the i-SOTP are very similar to those of core SOTPs, with an additional focus on internet and ICT use (Hayes, Archer and Middleton, 2006). However, the i-SOTP lacks any outcome evaluations at the time of writing (autumn 2017) and it is believed that the programme is no longer in operation.

The National Probation Service operates the Internet Sexual Offending Specified Activity Requirement, which is a non-validated and unaccredited programme that takes many of the above discussed areas of focus from SOTPs but, as with the i-SOTP, there are no outcome evaluations and its development does not seem to be grounded within work with internet offenders. The Ministry of Justice has recently reported that SOTPs in general may not assist in preventing recidivism, and possibly contribute to an increase in offending by those who took part in the programme (Mews, Di Bella and Purver, 2017). Although SOTPs have been widely used since the late 20th century in the English and Welsh justice setting, this was the first substantive evaluation of its influence on long-term outcomes, which highlights the difficulty of achieving meaningful and informed findings in a short amount of time. This is particularly true given the nature and consequence of CSA on victims and communities.

Generally, the evidence base for the success of such cognitive-directed treatments is limited for perpetrators of online CSA (Davidson and Gottschalk, 2010) and little has been done in this area of research. In exploring different perpetrator typologies and their varying needs, Davidson and Gottschalk's research highlights concerns that combining dual, contact-only and internet-only perpetrators into group treatment may have negative implications owing to the varying needs of the individuals involved.

The seeming lack of research and evaluation of SOTPs related to perpetrators of online-facilitated CSA makes it unlikely that these programmes will be used with this offending sub-group, primarily because they are assessed as being of low risk according to the RM2000 and are therefore diverted through alternative treatment programmes, as discussed above. At the time of writing (autumn 2017), the Lucy Faithfull Foundation, a charity working to prevent CSA through engaging with victims, families and perpetrators themselves, offers a community treatment programme called

Inform Plus (Lucy Faithfull Foundation, 2017). Inform Plus is a ten-week group programme for individuals who have been arrested, cautioned or convicted for internet-only CSA offences. Specialists trained by the Lucy Faithfull Foundation run the programme, which provides an enriching and rehabilitative environment for these individuals to equip themselves with the necessary tools and abilities so as not to re-offend. The programme works on having the participants understand the psychological, social and behaviour processes that contribute to their offending; developing empathy for potential victims and their families; understanding the implications of the individuals offending on their own families and friends; giving information on the criminal justice system and its processes as linked to internet-facilitated CSA; and identifying goals for future outcomes and behaviours while remaining crime free. The course is relatively widely available in England, however no identifiable evaluations or research exploring its impact or outcomes were yet available in autumn 2017.

There are also primary prevention options for paedophiles who recognise their abnormal sexual attractions to children and seek support and assistance through certain web services. Stop it Now! (UK and Ireland), Dunkelfeld (Germany) and De Waag (Netherlands) have provided promising findings on the provision of services for perpetrators of online-facilitated CSA. Stop it Now! (UK) provides a helpline to engage a range of users who may be concerned about the safety and safeguarding of young people, but also the risk that they may pose to children and young people. They also offer a series of modules in which paedophiles are able to address their sexual preferences in children anonymously, without engaging with respective criminal justice systems. The modules and wider site provide information on the law and legislation, and are intended to increase awareness of the issues while building on remaining crime free, building self-confidence and esteem, and developing problem-solving skills. The modules are not meant to be diagnostic tools and individuals are urged to seek further professional support if they are concerned with how their thoughts may manifest into behaviours. The content is based on existing research but caution is advised as the research base develops and further evaluation material and services become available.

Study participants with the above services who had offended reported that they felt a greater level of control over their sexual thoughts and behaviour after contacting and consulting the helpline. Many participants also reported positive change that in turn would likely influence their likelihood of re-offending. This included improvements in their emotional and psychological well-being, addressing their offence-supportive beliefs, ameliorating their motivations to desist, and increasing opportunities for prosocial community engagement (Brown et al., 2014). It is worth noting that the focus was not distinctly on perpetrators of online-facilitated CSA.

An alternative internet site, Virtuous Paedophiles, is an online peer support group for those who have identified their attraction to children and adolescents. Managed by two self-identified paedophiles, the website provides a plethora of scientific information and other media-based resources (documentaries, blogs) in which individuals can seek support and assistance anonymously. The concept behind both of these examples is to be non-stigmatising and not criminalise the mental health elements linked to sexual paraphilias, while promoting an integrated life crime free. Primary research around these initiatives could be helpful in understanding their longer term outcomes, but it is

also noted that many of the individuals using these forums have engaged in criminal behaviour and therefore present differently from many of the samples presented in this report. Finally, these primary prevention programmes also rely on those with an abnormal or inappropriate sexual interest in children to recognise this and seek support. This may have implications for not only the sample of individuals who seek support and assistance, but also individuals' psychological state and mental health. There may be certain individuals who do not see themselves as having abnormal sexual interests and are therefore unlikely to seek support.

Seto (2013) states that perpetrators of online-facilitated CSA are more likely to re-offend sexually than the general non-sexual offender, but not more than those who have perpetrated a contact offence. Seto argues that given the visibly low recidivism rates of most perpetrators of online-facilitated CSA, treatment may not be necessary provided that appropriate sentencing and monitoring are put into place.

Conclusion

The research evidence base for perpetrators of online-facilitated CSA has grown considerably in recent years. The rapid evidence assessment was able to confidently address a number of the research questions set out initially by the Inquiry. This review has in large part covered the most recent key research in the UK. Where key articles were not identified by the methodology, the review process has ensured that those sources have been referred to in this report. The research demonstrated that convicted perpetrators of online CSA have the following demographic characteristics: they are generally male, white, young, educated, intelligent, employed, and have less prior criminal history than contact offenders. When considering the psychological and cognitive factors of online perpetrators compared with contact offenders (which include dual offenders in this instance) they typically experience problems with intimacy, emotional loneliness, low self-esteem, under-assertiveness and empathy. These problems are related to personality impairments that are known to lead to difficulties in developing and maintaining relationships with others. Online offenders may also suffer from depression and/or various personality disorders, as well as other mental health issues, however this is not unique to this offending group and shares parallels with the more substantial contact offending research base.

Many of the studies presented note that often these psychological and cognitive factors are less prominent within internet-only perpetrator groups but this can be confounded when dual offenders are included in the reporting of findings. The research body also suggests that advances in technology and its disinhibiting properties have led to the rise in all types of online sexual offences against children. Offence-supportive beliefs may lead (for some) to the viewing of children and young people, or CSA material, as sexually rewarding. Lastly, individuals who feel isolated from their normative peer groups seeking emotional intimacy online may lead to perpetrator behaviour.

A great deal of research is available presenting a range of typologies and categorisations, all of which offer insight into different types of individuals engaging in online CSA. This body of research is useful in illustrating the motivations of perpetrators across offence type (for example perpetrators of solicitation and grooming offences versus CSA material offences) as well as highlighting key victim features of vulnerability and susceptibility. For example, the grooming typologies presented by Webster et al. (2012) not only explained associations with victims in their own study, but has led to additional work by Davidson et al. (2016) attempting to better understand the link. It is important to understand the offender–victim relationship as clearly as possible as new prevention and intervention programmes are developed, so this type of research and its diversity is of great use. It also appears that the existing evidence base on perpetrators of CSA material offences is more robust than that for perpetrators of online grooming and solicitation. With the exception of Webster et al. (2012), no studies were identified that distinguished between perpetrators who groomed or solicited victims for a physical encounter and those who groomed or solicited with a view to an online outcome only.

Other findings outlined in this rapid evidence assessment permit only more tentative

conclusions. Where this is the case, this report has drawn out the limitations of the evidence base as a whole and of individual studies. It has also suggested areas for further research. Few papers reviewed for this rapid evidence assessment considered the anti-social and criminal elements of sexting, either by adult perpetrators or in peer-on-peer offending. There is an element of sexting that occurs in adult–youth interactions leading to victimisation, such as solicitation, but we do not necessarily know to what extent. Additionally, the methods and motivations of adolescent and child perpetrators through sexting is not inherently known – as discussed, many advocate that sexting is exploratory and experimental, and thus an expression of developmentally typical adolescent risk-taking and impulsivity. Even the cases where suspected solicitation or distribution occurs, these young people’s knowledge of the law and the consequences are not entirely known. More work needs to focus on this area of anti-sociality.

We also know very little about behaviours on distinct ICT devices, social media and SNSs. The research presented here discusses some of the tactics employed through SNSs in the perpetration of online-facilitated CSA, but only very broadly. Research on how technology such as gaming consoles (available but limited), messaging (WhatsApp, BBM, basic texting, Snapchat) and SNSs (Facebook, Twitter, Instagram) is used by perpetrators would be helpful and informative in understanding the risks posed to children and young people. This directly feeds into a gap in institutional responses, as these organisations play a pivotal and vital role in the prevention and intervention of these crimes.

The evolution, or escalation, of non-contact, internet-only perpetrators to contact offenders, or mixed (both) is inconclusive. The research suggests that recidivism levels for internet-only perpetrators of online CSA is low, as is the commission of a contact offence post-conviction or punishment for an internet offence. However undetected criminal activity, as well as under-reporting by victims, may not be providing as full a picture of what is actually occurring online.

Findings from this rapid evidence assessment provide support and direction for further research. Many of the typologies are not validated, or validated only with small sample sizes and within specific geographic locations. Therefore, although they are useful in establishing an understanding of why perpetrators offend in a particular way and with particular online content, these typologies require more work in future in understanding the underlying features of the distinct offender types. Additionally, longitudinal work exploring whether this is a staged process in acquiring online content only (photographs, videos, exhibitionism) to that of meeting for a contact offence is merited (Gottschalk, 2011). Further distinctions between online-facilitated CSA sub-types are unclear, and much of the research has broad relevance across this general category of criminality. Although efforts have been made in the body of this report to highlight where the research discusses a unique perpetrator and offence category, significant indicators such as previous offending behaviour and differentiating factors are less clear. More research is needed in extracting key defining characteristics which can be obtained either through more longitudinal work or an increased number of qualitative studies focusing more exclusively on offender sub-type (only online solicitors who aimed to meet for a contact offence, only CSA material collectors, and so on).

For practitioners and institutions working in protecting children from online threats, while the research base is equally limited in addressing the role of institutions in dealing with these crimes, a great deal of the grey literature illustrates the importance of multi-disciplinary partnership in combating these offence types. Much of the institutional work is on adapting sexual offender assessment and intervention with online sexual offenders, with a disagreement on the most effective way of engaging with dual offenders (whether it be through traditional contact CSA tools or hybrid measures and programmes). Identified risk factors of re-offending are suggested to be similar to the general criminal population, with characteristics such as age, criminal history, mental health and substance use among those often cited (Eke, Seto and Williams, 2011; Seto and Eke, 2015; 2017). In thinking about the protection of young people online, research on recidivism suggests that online offenders are at a low risk of committing a contact offence in the future (based on those who have been caught or convicted). Great advancements have been made in recent years, such as better communication between law enforcement and the third sector, and more evaluative research in this area could be useful in understanding patterns of victimisation and offending.

The limitation of this research is that it was, as the name suggests, conducted rapidly, so unlike in a systematic review it was not possible to consider all of the returns for every string and term developed. A more substantial piece of work in the future with more time and resources could build on what is presented in this report. As there was a relatively strict scrutiny and screening process, it is possible that relevant documents were excluded from the review, or not identified in the first place. Lastly, as offending and victimisation evolve in the online space, partly in consequence of ever-changing technologies, the research base and academic community must keep pace and deliver current and relevant research about perpetrator behaviour, victim vulnerability and resilience, and internet safety and awareness programmes. As new ICT devices and SNS platforms become the norm (for example a shift away from desktop computers to laptops to tablets; the changing popularity of messaging platforms, including increasing uptake of platforms offering end-to-end encryption), the research risks becoming outdated and irrelevant. Therefore more needs to be done to ensure it is rich and relevant to the contemporary risk of online-facilitated CSA.

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Appendix A Search terms and strings

Research question	Boolean strings	Condensed term(s)
RQ1 – Behaviour and characteristics	(‘Offender’ OR ‘Sex offender’ OR ‘Paedophile’ OR ‘Hebephile’) AND (‘Online child sexual abuse’ OR ‘Internet child victimisation’ OR ‘Online child victimisation’ OR ‘Online child victim’ OR ‘Cyber sexual abuse’ OR ‘Child porn’) AND (‘Prevalence’ OR ‘Frequency’ OR ‘Occurrence’ OR ‘Experience’ OR ‘Characteristics’ OR ‘Behaviour’)	Internet sex offenders Internet child sex offenders Internet child sexual abuse Online child sexual abuse
	(‘Internet’ OR ‘Technology’ OR ‘Online’) AND (‘Offender’ OR ‘Offender behaviour’) AND (‘Grooming’ OR ‘Grooming behaviour’ OR ‘Groomer’ OR ‘Abusing online’ OR ‘Images’ OR ‘Child indecent images’ OR ‘Image collection’ OR ‘Image production’ OR ‘Image distribution’ OR ‘Cybersex’ OR ‘child porn’ OR ‘Sexting’ OR ‘Typologies’)	Technology child sex offenders Child porn/pornography
	(‘Internet sex offender’ OR ‘Online sex offender’ OR ‘Internet paedophile’ OR ‘Internet hebephile’) AND (‘Online child sexual abuse’ OR ‘Internet child sexual abuse’) AND (‘Motivations’ OR ‘Pathways’ OR ‘Attitudes’ OR ‘Activities’ OR ‘Behaviours’ OR ‘Characteristics’)	
RQ2 – Role of technology in offending	(‘Internet sex offender’ OR ‘Online sex offender’ OR ‘Internet paedophile’ OR ‘Internet hebephile’) AND (‘Computer mediated technology’ OR ‘Computer’ OR ‘Social media’ OR ‘SNS’ OR ‘Social networking sites’ OR ‘Communication service providers’ OR ‘ISPs’ OR ‘Virtual platforms’ OR ‘SMS’ OR ‘Text’ OR ‘Facebook’ OR ‘Twitter’ OR ‘Google’ OR ‘Instagram’ OR ‘Snapchat’ OR ‘Tumblr’ OR ‘Tinder’ OR ‘Pure’ OR ‘Blendr’ OR ‘Reddit’ OR ‘Imgur’ OR ‘Gaming’ OR ‘Console’ OR ‘ICT’ OR ‘Software’ OR ‘Chat’ OR ‘Mobile telephone’ OR ‘Mobile’ OR ‘Instant messaging’) AND (‘Groom’ OR ‘Abuse’ OR ‘Online solicitation’ OR ‘Image’ OR ‘Indecent images’)	Internet of things (IoT) online child sexual abuse Darknet TOR/The Onion Router MMROPG [massively multiplayer online role-playing games] online CSA Gaming online CSA Game consoles online CSA
	(‘Sex offender’ OR ‘Offender’ OR ‘Paedophile’ OR ‘Hebephile’) AND (‘Child sexual abuse’) AND (‘Online’ OR ‘Technology’ OR ‘Internet’ OR ‘Social networking’ OR ‘Computer mediated technology’ OR ‘CMC’ OR ‘Social media’ OR ‘Social networking sites’ OR ‘Communication service providers’ OR ‘ISPs’ OR ‘SNS’ OR ‘Virtual platforms’ OR ‘SMS’ OR ‘Text’ OR ‘Facebook’ OR ‘Twitter’ OR ‘Google’ OR ‘Instagram’ OR ‘Snapchat’ OR ‘Tumblr’ OR ‘Tinder’ OR ‘Pure’ OR ‘Blendr’ OR ‘Reddit’ OR ‘Imgur’)	Social media online CSA Social networking online CSA Anti-grooming software Notice and takedown Bitcoin

	<p>AND ('Child' OR 'Youth' OR 'Young people' OR 'Adolescent' OR 'Teen') AND ('Darknet' OR 'TOR' OR 'The Onion Router' OR 'Anonymous' OR 'IoT' OR 'Internet of things' OR 'Bitcoin' OR 'Crypto-currencies' OR 'Encryption')</p> <p>('Sex offender' OR 'Offender' OR 'Paedophile' OR 'Hebephile') AND ('Child sexual abuse') AND ('Online' OR 'Technology' OR 'Internet' OR 'Social networking') AND ('Darknet' OR 'TOR' OR 'The Onion Router' OR 'Anonymous' OR 'IoT' OR 'Internet of things' OR 'Bitcoin' OR 'Crypto-currencies' OR 'Encryption')</p>	<p>Crypto-currencies</p> <p>Encryption</p>
RQ3 – Emergent offences	<p>('Internet' OR 'Technology' OR 'Online') AND ('Typology') AND ('Offender' OR 'Perpetrator' OR 'Groomer' OR 'Paedophile' OR 'Hebephile') AND ('Grooming' OR 'Online solicitation' OR 'Image' OR 'Indecent images' OR 'Image collection' OR 'Image production' OR 'Image distribution' OR 'Cybersex' OR 'Sexting' OR 'Selfies' OR 'Self-generated' OR 'Group' OR 'Group victimisation' OR 'Virtual' OR 'Virtual child pornography')</p> <p>('Internet' OR 'Technology' OR 'Online') AND ('Typology') AND ('Offender' OR 'Perpetrator' OR 'Groomer' OR 'Paedophile' OR 'Hebephile') AND ('Youth' OR 'Child' OR 'Children' OR 'Adolescent' OR 'Peer') AND ('Peer on peer' OR 'Child offender' OR 'Child sex offender' OR 'Youth sex offender')</p> <p>('Child offender' OR 'Child sex offender' OR 'Youth sex offender') AND ('Internet' OR 'Technology' OR 'Online') AND ('Typology') AND ('Offender' OR 'Perpetrator' OR 'Groomer' OR 'Paedophile' OR 'Hebephile')</p>	<p>Online grooming</p> <p>Child indecent image collection</p> <p>Child indecent image production</p> <p>Child indecent image distribution</p> <p>Sexting</p> <p>Self-generated images</p> <p>Sexploitation children</p> <p>Webcam child sexual abuse</p> <p>'Nudies' and 'selfies'</p> <p>Virtual pornography (note: non-human)</p>
RQ4 – Offence links	<p>('Offender' OR 'Offender behaviour' OR 'Sex offender') AND ('Internet' OR 'Technology' OR 'Online' OR 'Virtual') AND ('Multiple offence' OR 'Career criminal' OR 'Escalation' OR 'Development' OR 'sequence' OR 'Pathways' OR 'Desistence')</p> <p>('Offender' OR 'Offender behaviour' OR 'Sex offender') AND ('Internet' OR 'Technology' OR 'Online' OR 'virtual') AND ('Contact' OR 'Contact offences') AND ('Non-contact' OR 'Non-contact offences')</p> <p>('Internet' OR 'Technology' OR 'Online') AND ('Typology') AND ('Offender' OR 'Perpetrator' OR 'Groomer' OR 'Paedophile' OR 'Hebephile') AND ('Offline abuse' OR 'Physical' OR 'Real world' OR 'Real') AND ('Online abuse' OR 'Internet abuse' OR 'Virtual' OR 'Virtual world')</p>	<p>Non-contact to contact child sexual abuse</p>
RQ5 – Institutional role	<p>('Offender' OR 'Sex offender' OR</p>	<p>Institutional legitimacy internet</p>

	<p>'Paedophile') AND ('Online child sexual abuse' OR 'Internet child victimisation' OR 'Online child victimisation' OR 'Online child victims' OR 'Cyber sexual abuse') AND ('Government' OR 'Policy' OR 'Frameworks' OR 'Legislation')</p>	<p>child sexual abuse</p> <p>Policing online child sexual abuse</p> <p>Industry prevention online child abuse</p>
	<p>('Offender' OR 'Sex offender' OR 'Paedophile' OR 'Hebephile') AND ('Online child sexual abuse' OR 'Internet child victimisation' OR 'Online child victimisation' OR 'Online child victims' OR 'Cyber sexual abuse') AND ('Police' OR 'Policing' OR 'Criminal justice system' OR 'Crown Prosecution Service' OR 'Sentencing' OR 'Legal system' OR 'Ministry of Justice' OR 'MOJ' OR 'National Offender Management Service' OR 'NOMS' OR 'Home Office' OR 'Justice' OR 'CEOP' OR 'NCA')</p>	
	<p>('Internet' OR 'Technology' OR 'Online') AND ('Typology') AND ('Offender' OR 'Perpetrator' OR 'Groomer' OR 'Paedophile' OR 'Hebephile') AND ('Online child abuse' OR 'Internet child abuse') AND ('Institution' OR 'Democracy' OR 'Social' OR 'Welfare' OR 'Social Welfare' OR 'Social democracy' OR 'Neoliberal' OR 'Political economy' OR 'Procedural')</p>	

Appendix B Targeted databases and grey literature

Academic or peer-reviewed databases	Grey literature	Alternative
PsycINFO and PsycARTICLES	Barnardo's	Google Scholar using condensed search terms and for cross-checking.
Web of Science	NSPCC Office of the Children's Commissioner	Many of the adjacent organisations can provide documentation through the call for evidence as representatives are suggested on the recipient list.
HeinOnline	Home Office Ministry of Justice Department for Education National Offender Management Service Sentencing Council for England and Wales	
Criminal Justice Abstracts	CEOP	
Lexis Nexus	Childnet and Safer Internet Centre	
International Bibliography of the Social Sciences	UKCCIS Research Highlights	
Ethos	ITU	
Academic Search Premier	UNICEF	
	European Cybercrime Centre	
	Interpol	
	US National Center for Missing and Exploited Children and International Centre for Missing and Exploited Children	
	Internet Watch Foundation	
	Lucy Faithfull Foundation	
	Family Online Safety Institute Global Resource and Information Directory	

From experience, the PsychINFO, PsychARTICLES and Web of Science have the widest reach for relevant peer-review information, and will thus be prioritised. Any of these databases would be suitable for a pilot. We will re-apply the search strategy and parameters following the pilot to the selected database to ensure standard practice across search areas. It is believed that the request for research will yield a large number of included articles from the annals of grey literature.

Appendix C Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Language	English	All others unless translated into English
Country of origin	Research includes offender and/or victim and survivor with relevance to England and/or Wales	
Evidence type	Empirical and primary studies, including those that are literature based	Popular media pieces (blogs, newspaper articles referring to specific cases)
Methodology	All and varied	Where methods are unclear – exception with grey literature
Year	Published in last five years, including rapid evidence assessments conducted in the area that include older research	Standalone research over five years old – this would be captured in existing rapid evidence assessments
Access	Only documents that the research team can access in full will be included	Where full versions are not accessible
Victim and survivor	All victimisation facilitated through technological mediums of under 18s (UN Convention on the Rights of the Child)	Purely contact victimisation
Offender and perpetrator	Online-facilitated sexual abuse of children, with relevance to victim and survivor or perpetrator in England or Wales	Offline sexual abuse (unless association); online non-sexual abuse

Appendix D Weighting of sources included

Authors	Year	WoE overall score
Ahern, N. R. and Mechling, B.	2013	Low
Aiken, M., Moran, M. and Berry, M.	2011	Low
Alexy, E. M., Burgess, A. W. and Baker, T.	2005	Medium
Alexander, M. A.	1999	Low
Ashurst, L. and McAlinden, A. M.	2015	Medium
Aslan, D. and Edelmann, R.	2014	Medium
Babchishin, K. M., Hanson, R. K. and Hermann, C. A.	2011	Medium
Babchishin, K. M., Hanson R. K. and VanZuylen, H.	2015	High
Balfe, M., Gallagher, B., Masson, H., Balfe, S., Brugh, R., Hackett, S.	2015	Medium
Barnett, G. D., Wakeling, H. C. and Howard, P. D.	2010	Medium
Beech, A. R., Elliott, I. A., Birgden, A. and Findlater, D.	2008	Low
Bergen, E., Davidson, J., Schulz, A., Schuhmann, P. and Johansson, A.	2014	Medium
Black, P. J., Wollis, M., Woodworth, M. and Hancock, J. T.	2015	Medium
Briggs, P., Simon, W. T. and Simonsen, S.	2011	Medium
Brown, A., Jago, N., Nicholls, C., Paskell, C. and Webster, S.	2014	Medium
Brown, F. and Keibell, M. R.	2013	Low
Burgess, A. W., Carretta, C. M. and Burgess, A. M.	2012	Low
Buschman, J., Bogaerts, S., Foulger, S., Wilcox, D., Sosnowski, D. and Cushman, B.	2010a	Low
Buschman, J., Wilcox, D., Krapohl, D., Oelrich, M. and Hackett, S.	2010b	High
Carr, J.	2010	Low
CEOP	2013	Low
Cohen-Almagor, R.	2013	Low
College of Policing	2016	Low
Cooper, K., Quayle, E., Jonsson, L. and Svedin, C. G.	2016	Medium
Davidson, J. and Gottschalk, P.	2010	Medium
Davidson, J., Martellozzo, E. and Lorenz, M.	2009	Medium
Davidson, J., DeMarco, J., Bifulco, A., Bogaerts, S., Caretti, V., Aiken, M., Cheevers, C., Corbari, E., Scally, M., Schimmenti, A., Puccia, A.	2016	High
DeHart, D., Dwyer, G., Seto, M. C., Moran, R., Letourneau, E. and Schwarz-Watts, D.	2017	High
DeLong, R., Durkin, K. and Hundersmarck, S.	2010	Medium
DeMarco, J. N., Davidson, J. C., Bifulco, A., Scally, M., Cheevers, C., Schimmenti, A., Caretti, V., Puccia, A., Corbari, E., Schilder, J. and Bogaerts, S.	2016	Medium
DeMarco, J., Cheevers, C., Davidson, J., Bogaerts, S., Pace, U., Aiken, M., Caretti, V., Schimmenti, A. and Bifulco, A.	2017	Medium
Dowdell, E. B., Burgess, A. W. and Flores, J. R.	2011	Low
Draper, N. R.	2012	Low
ECPAT International	2016	Low
Eke, A. W., Seto, M. C. and Williams, J.	2011	Low
Elliott, I. A.	2011	Medium
Elliott, I. A.	2017	Medium
Elliott, I. A. and Ashfield, S.	2011	Low
Elliott, I. A. and Beech, A. R.	2009	Medium

Elliott, I. A., Beech, A. R. and Mandeville-Norden, R.	2013	High
Europol	2015	Low
Europol	2016	Low
Faust, E., Bickert, W., Renaud, C. and Camp, S.	2015	Medium
Finkelhor, D.	2009	Medium
Gottschalk, P.	2011	Medium
Hanson, R. K., Gordon, A., Harris, A. J., Marques, J. K., Murphy, W., Quinsey, V. L. and Seto, M. C.	2002	Medium
Hayes, E., Archer, D. and Middleton, D.	2006	Low
Henry, O., Mandeville-Norden, R., Hayes, E. and Egan, V.	2010	Medium
Home Office	2015	Low
Horvath, M. A., Alys, L., Massey, K., Pina, A., Scally, M. and Adler, J. R.	2013	Medium
Horvath, M. A. H., Davidson, J., Grove-Hills, J., Gekoski, A. and Choak, C.	2014	Medium
Houtepen, J., Sijtsema, J. J. and Bogaerts, S.	2014	Medium
Interpol	2016	Low
IWF	2017	Low
Jardine, E.	2015	Low
Jung, S., Ennis, L. and Malesky Jr., A.	2012	Low
Kettleborough, D. G. and Merdian, H. L.	2017	Low
Kloess, J. A., Beech, A. R. and Harkins, L.	2014	Low
Lanning, K. V.	1998	Medium
Lee, A., Li, N., Lamade, R. and Schuler, A.	2012	Low
Livingstone, S., Haddon, L. and Görzig, A.	2012	Medium
Livingstone, S., Haddon, L., Görzig, A. and Ólafsson, K.	2011	Medium
Long, M., Alison, L., Tejeiro, R., Hendricks, E. and Giles, S.	2016	High
Long, M. L., Alison, L. A. and McManus, M. A.	2013	High
Lorang, M. R., McNeil, D. E. and Binder, R. L.	2016	Low
Ly, T., Murphy, L. and Fedoroff, J. P.	2016	Low
Magaletta, P. R., Faust, E., Bickart, W. and McLearn, A. M.	2014	Medium
Martellozzo, E.	2015	Medium
Martellozzo, E., Monaghan, A., Adler, J. R., Davidson, J., Leyva, R. and Horvath, M. A.	2016	Medium
McAlinden, A. M.	2012	Low
McManus, M. A., Long, M. L., Alison, L. and Almond, L.	2015	Medium
Merdian, H. L., Curtis, C., Thakker, J., Wilson, N. and Boer, D. P.	2013	Low
Merdian, H. L., Moghaddam, N., Boer, D. P., Wilson, N., Thakker, J., Curtis, C. and Dawson, D.	2016	Medium
Milligan, S.	2014	High
Mitchell, K. J., Finkelhor, D., Jones, L. M. and Wolak, J.	2010	Medium
Navarro, J. N. and Jasinski, J. L.	2015	Low
Nielssen, O., O'Dea, J., Sullivan, D., Marcelo, R., Bourget, D., Large, M.	2011	Low
NSPCC	2016	Low
Omand, D.	2015	Low
Osborn, J., Elliott, I., Middleton, D. and Beech, A.	2010	High
Owens, J. N., Eakin, J. D., Hoffer, T., Muirhead, Y. and Shelton, J. E.	2016	Medium
Quayle, E.	2010	Low
Quayle, E. and Jones, T.	2011	Medium
Quayle, E., Allegro, S., Hutton, H., Sheath, M. and Lööf, L.	2012	Medium
Quayle, E., Allegro, S., Hutton, H., Sheath, M. and Lööf, L.	2014	Medium
Riggio, E. and Hecht, M. E.	2016	Low
Ringrose, J., Gill, R., Livingstone, S. and Harvey, L.	2012	Low

Schimmenti, A., Passanisi, A. and Caretti, V.	2014	Low
Seto, M. C.	2013	High
Seto, M. C.	2016	Medium
Seto, M. C. and Eke, A. W.	2005	High
Seto, M. C. and Eke, A. W.	2015	High
Seto, M. C. and Eke, A. W.	2017	High
Seto, M. C., Hanson, R. K. and Babchishin, K. M.	2011	Medium
Seto, M., Wood, J., Babchishin, K. and Flynn, S	2012	High
Shelton, J., Eakin, J., Hoffer, T., Muirhead, Y. and Owens, J.	2016	Medium
Smahel, D. and Wright, M. F.	2014	Low
Smith, S.	2014	Low
Suler, J.	2004	Low
Tener, D., Wolak, J. and Finkelhor, D.	2015	High
Thornton, D., Mann, R., Webster, S., Blud, L., Travers, R., Friendship, C. and Erickson, M.	2003	Medium
US Department of Justice	2016	Low
van Gijn-Grosvenor, E. L. and Lamb, M. E.	2016	Low
Webster, S., Davidson, J., Bifulco, A., Gottschalk, P., Caretti, V., Pham, T., Grove-Hills, J., Turley, C., Tompkins, C., Ciulla, S., Milazzo, V., Schimmenti, A. and Craparo, G.	2012	High
Webb, L., Craissati, J. and Keen, S.	2007	Medium
Whittle, H. C., Hamilton-Giachritsis, C. and Beech, A.	2013	Medium
Whittle, H. C., Hamilton-Giachritsis, C. and Beech, A.	2015	Medium
Whittle, H., Hamilton-Giachritsis, C., Beech, A. and Collings, G.	2013	Medium
Williams, R., Elliott, I. A. and Beech, A. R.	2013	Medium
Winder, B. and Gough, B.	2010	Low
Wolak, J. and Finkelhor, D.	2011	Low
Wolak, J. and Finkelhor, D.	2013	High
Wolak, J., Finkelhor, D. and Mitchell, K.	2011	High
Wolak, J., Finkelhor, D., Mitchell, K. and Ybarra, M.	2010	Low
Wood, M., Barter, C., Stanley, N., Aghtaie, N. and Larkins, C.	2015	Medium
Ybarra, M. L. and Mitchell, K. J.	2014	Low



Appendix E Typology summaries

References	Typology or classification						
<p>Lanning, K. V. (1998). Cyber pedophiles: a behavioral perspective. <i>APSAC Advisor</i>, 11(4), 12–18.</p>	<p>Situational ‘normal’ offenders are more likely to take risks and act impulsively while online, and are looking for sex and to take a chance in the online sphere. They are not necessarily motivated by offending.</p>	<p>Morally indiscriminate offenders are likely to suffer from mental health issues such as personality disorders and to come from criminal backgrounds or ongoing non-sexual criminal careers.</p>	<p>Profiteer offenders abuse and/or produce primarily for financial gain.</p>	<p>Preferential offenders are attracted to children.</p>	<p>Diverse offenders originate from a range of sexual preferences for children and use the internet and computer-mediated technologies to act. They can include, but are not limited to, image producers, collectors, distributors, dual offenders and online groomers for various grooming outcomes.</p>	<p>Latent offenders are individuals whose interests are facilitated and behaviours disinhibited by the internet. These individuals are believed to have offended because of features of the internet, as explained by the online disinhibition effect in chapter 3.</p>	<p>Miscellaneous offenders include individuals linked to investigative journalism and/or research who do not have the authority to access CSA content legally (they are not law enforcement officers).</p>
<p>Tener, D., Wolak, J. and Finkelhor, D. (2015) A typology of offenders who use online communications to commit sex crimes against minors. <i>Journal of Aggression, Maltreatment and</i></p>	<p>Expert perpetrators are a diverse group comprising individuals who meet their victims both online and offline. They decide whether to fabricate identities or use their true profiles through interactions with their victims. The online sexual relationships between perpetrator and victim may occur almost immediately or develop over time through a grooming process. The relationship between the</p>	<p>Cynical perpetrators often know their victims in the ‘real’ world before offending. Like expert perpetrators, they use different identities online interchangeably, though this may not make a difference in their offending as they often know their victims. Again, the sexual relationship may begin quickly. These individuals seemingly have consensual relationships with their victims in the early stages of</p>	<p>Affection-focused perpetrators meet their victims online and move towards a real-world encounter. They present their true identities and the sexual relationships begin gradually and are perceived to be consensual by the perpetrator with the victim. Their ICT ability is rated as low.</p>	<p>Sex-focused perpetrators expedite the entire process. Online meetings progress rapidly to a face-to-face encounter in which true identities are presented and the relationship is instantaneously sexualised. Relationships with victims are perceived to be consensual and these perpetrators have low ICT ability.</p>			

<p><i>Trauma</i>, 24, 319–337.</p>	<p>perpetrators and victim is believed to be reciprocal. These individuals demonstrate expert skills in using ICT in their offending.</p>	<p>abuse. Their ICT skills, described by the authors as moderate to low, are inferior to those of expert perpetrators.</p>		
<p>Elliott, I. A. and Beech, A. R. (2009) Understanding online child pornography use: applying sexual offense theory to internet offenders. <i>Aggression and Violent Behavior</i>, 14(3), 180–193.</p>	<p>Periodically prurient perpetrators are proposed to be individuals who engage with legal online sexual material more widely but who may impulsively or curiously view sexual images of children as part of their wider browsing behaviours. Some of these individuals may have been paedophilic – meaning that they have a sexual interest in children and/or adolescents.</p>	<p>Fantasy-driven online-only perpetrators are those individuals who access and distribute images of children with other perpetrators for sexual purposes, but who are not known to have been apprehended or have engaged in a contact offence.</p>	<p>Direct victimisation perpetrators use cyberspace and the internet for a wider, more organised method of online and offline (contact) offending including online solicitation for the purpose of a direct physical encounter.</p>	<p>Commercial exploitation perpetrators are those who engage with both the production and distribution of images for financial gain.</p>
<p>DeHart, D. et al. (2017) Internet sexual solicitation of children: a proposed typology of offenders based on their chats, e-mails, and social network posts. <i>Journal of Sexual Aggression</i>, 23(1), 77–89.</p>	<p>Cybersex-only perpetrators either exposed themselves to their victims while communicating or sought to receive sexually explicit images or content. The perpetrators are interested in the physical features of their victims and provide instructions on how to behave or act sexually while communicating online. They tend to engage in sustained communication over several months but no concrete plan to have a real-world encounter is ever discussed.</p>	<p>Schedulers are perpetrators who are looking for instant, or more immediate, sexual gratification. They are unlikely to expose themselves online but instead request sexual images of the victim more often than cybersex-only perpetrators. The period of communication between the victim and the perpetrators is much shorter than cybersex-only perpetrators.</p>	<p>Cybersex perpetrators or schedulers are those perpetrators who have sustained communication with their victims, seek information about their physical features and plan a specific meeting in the foreseeable future. Although these individuals share features with the cybersex-only perpetrators, they are unlikely to actually follow through with a meeting once planned with their victims. There is debate over whether imagining the encounter is part of their fantasy, or if there is genuine insecurity and fear of being caught.</p>	<p>Buyers are those individuals who prioritise the schedule for meeting the victim and negotiate over exactly what types of actions or sexual behaviours they will engage in. Among these individuals are those who seek and respond to classified advertisements on notice boards.</p>
<p>Alexy, E. M., Burgess, A. W. and Baker, T. (2005) Internet offenders:</p>	<p>Traders collect images of children and young people and distribute them through online networks using file-sharing technologies and anonymous groups. Convictions relate to possession or</p>	<p>Travellers take a journey to engage in contact offences; their online activities often include aspects of a grooming process.</p>	<p>Trader-travellers both trading and travel and could be compared to dual offenders.</p>	

<p>Traders, travellers and combination trader-travellers. <i>Journal of Interpersonal Violence</i>, 20, 804–812.</p>	<p>distribution of images but not contact offences, which feasibly could include grooming without contact.</p>		
<p>Webster, S. et al. (2012) <i>European Online Grooming Project: Final Report</i>. European Commission Safer Internet Plus Programme.</p>	<p>Intimacy-seeking perpetrators do not have previous convictions for sexual offending or engage in networking with other sex offenders, and are unlikely to have CSA material. They are likely to engage in intimate relationships with young people and believe the contact to be consensual.</p>	<p>Adaptable style perpetrators often have previous convictions for online CSA and view young people as mature and capable. They are not avid networkers or collectors of CSA materials. They adapt their approach according to the young person being engaged in the grooming process and their reactions.</p>	<p>Hyper-sexualised perpetrators tend to have significant collections of CSA materials and network extensively with other perpetrators of online CSA. They use deception, and their contact with young people is likely to progress rapidly to be of a sexual nature. Progression to contact offences with young people is less likely with this type than the other types of groomers because their primary motivation is rapid sexual gratification.</p>