Online grooming: moves and strategies

Emily Chiang & Tim Grant

Aston University

Abstract. *Using transcripts of chatroom grooming interactions, this paper explores and evaluates the usefulness of Swales' (1981) move analysis framework in contributing to the current understanding of online grooming processes. The framework is applied to seven transcripts of grooming interactions taken from perverted-justice.com. The paper presents 14 identified rhetorical moves used in chatroom grooming and explores the broad structures that grooming conversations take by presenting these structures as colour-coded visualisations which we have termed "move maps". It also examines how some individual linguistic features are used to realise a single move termed "Assessing and Managing Risk". The findings suggest that move analysis can usefully contribute in two key ways: determining communicative functions associated with 'grooming language' and the visualisation of variation between grooming interactions.*

Keywords: *Online grooming, child sexual abuse, move analysis, moves, strategies.*

Resumo. *Utilizando transcrições de interações de aliciamento em salas de conversa online, este artigo explora e avalia a utilidade do quadro de análise de passos proposto por Swales (1981) e o seu contributo para compreender os atuais processos de aliciamento online. Este quadro é aplicado a sete transcrições de interações que constituem aliciamento, retirados do website perverted-justice.com. O artigo apresenta a identificação de 14 passos retóricos em situações de aliciamento em salas de conversa e explora as estruturas genéricas das conversas de aliciamento, apresentado estas estruturas como visualizações codificadas a cores que designamos como "mapas dos passos". Analisa, ainda, de que modo se utilizam alguns traços linguísticos específicos para implementar um único passo, a que se designa "Avaliar e Gerir o Risco". Os resultados deste estudo indicam que a análise dos passos pode fornecer um contributo essencial de duas formas: determinar as funções comunicativas relacionadas com a "linguagem de aliciamento" e fornecer a visualização da variação entre interações de aliciamento.*

Palavras-chave: *Aliciamento online, abuso sexual de menores, análise de passos, passos, estratégias.*

Introduction

Studies of the prevalence of online sexual conversations between adults and children show it to be a growing social problem. These conversations occur most commonly in chatroom and instant messaging environments (37% and 40% respectively) (Wolak *et al.*, 2006). Although figures vary, one study found that one in three children in the US between 10 and 17 years old had been exposed to sexual material online, and one in seven had received online sexual solicitations (Wolak *et al.*, 2006). While the prevalence of online sex abuse and grooming in the UK is currently under-researched (Whittle *et al.*, 2013), UK charity Childline found that 60% of those young people surveyed had been asked for a sexual photograph or video (Foundation, 2013). This is particularly worrying with regard to an apparent growing trend in sexual extortion; a process by which offenders coerce victims into providing sexual imagery or engaging in sexual acts, by threatening to disseminate previously obtained imagery (Europol, 2014). Furthermore, of the reported 14% increase in the number of child sexual abuse (CSA) reports in 2013 from the previous year, 16% of these concerned online environments (Exploitation and Centre, 2013). Perhaps even more worrying is that advice and tips pertaining to child grooming are being shared in online hidden internet networks collectively known as the 'dark net' (Davidson and Gottschalk, 2011; McCartan and McAlister, 2012; Payne, 2014) and Briggs et al.'s (2011: 81) clinical study mentions "one subject possessed deviant material titled "how to solicit minors online"". This suggests that in the same way that some groups of offenders create and participate in groups to exchange sexual abuse imagery, so too groomers may be grouping together online to exchange grooming advice and guidance. With increasing awareness about underground networks, and the ever-growing online population (now 40% of the world and counting (Internet Live Stats, 2015) it seems inevitable that these serious problems will continue, despite various combative measures implemented by law-enforcement agencies, educational authorities and internet communication companies.

The fast-growing literature on this topic is largely dominated by psychology and criminology. This is perhaps unsurprising, but considering that online sexual abuse interactions occur almost entirely through a process of written communication, very little of our understanding is linguistically informed. This paper therefore aims to demonstrate the utility of a single linguistic method in contributing to the current understanding of online child sexual abuse interactions: Swales' (1981) move analysis.

Research aims and approach

This paper explores how Swales' (1981) move analysis might usefully contribute to our understanding of chatroom grooming. Specifically we have the following aims:

1. To identify the common rhetorical moves used by sex offenders in online sex abuse conversations
2. To examine some individual linguistic features of a single move and explore how they are used to realise broader goals of the move
3. To establish whether online sex abuse interactions follow a typical move structure
4. To evaluate the usefulness of move analysis in the context of online grooming conversations

Online child sexual abuse: psychological and criminological perspectives

As online child sexual abuse is a relatively new phenomenon, academic research in the area is still in its infancy, and most that does exist expectedly emerges from psychological and criminological perspectives. However, a small handful of linguistic studies have been conducted, and resultant typologies of online sex offenders and grooming and sex abuse processes have been suggested (see O'Connell, 2003; Williams *et al.*, 2013; Black *et al.*, 2015).

Early models of CSA focussed on offenders' psychology (Finkelhor, 1984), and tended to neglect the processes involved; particularly the gradual and considered approaches associated with grooming (Craven *et al.*, 2006; Ward *et al.*, 2006). It has been recognised that the presence of grooming significantly impacts whether abuse actually occurs, leading researchers to give it greater attention (Whittle *et al.*, 2013) and develop models describing the process (e.g. Craven *et al.*, 2006; Webster *et al.*, 2012. One of the most widely accepted models for grooming comes from Craven *et al.* (2006: 297) who established three forms of grooming:

1. self grooming
2. grooming the environment and significant other
3. grooming the child

This model responded to concerns that previous research had focused only on the children, neglecting the attention paid by groomers to children's families, communities, and local criminal justice systems in providing a supportive context for sexual abuse to occur (McAlinden, 2006).

Craven's model derives from work on offline grooming, but each of the three identified grooming types are found in research of online grooming (e.g. O'Connell, 2003; Williams *et al.*, 2013; Black *et al.*, 2015. We take our definition of grooming from Craven *et al.* (2006):

> A process by which a person prepares a child, significant adults and the environment for the abuse of this child. Specific goals include gaining access to the child, gaining the child's compliance and maintaining the child's secrecy to avoid disclosure. This process serves to strengthen the offender's abusive pattern, as it may be used as a means of justifying or denying their actions. (p. 297).

One issue here is that all sexualised online conversations between adults and children are typically captured by such a definition. We find this unsatisfactory as a general descriptor as "grooming" implies a preparatory act. Both the research literature and our wider data sets demonstrate that many "grooming" interactions include sexual acts themselves. The interactants may discuss sexual fantasies and plans but it is also typical of these conversations that the adult may command or request the child to perform sexual acts to be viewed via webcam. We do freely use the term "grooming" and we recognise that engagement in less severe sexualised activity can groom a child for more severe actions but where possible we restrict our use of the term grooming to its preparatory meaning. For interactions involving sexual activity we also refer to "child sexual abuse conversations" and similar constructions.

While online and offline grooming and child sex abuse strategies often overlap (Marcum, 2007; Wolak *et al.*, 2010; Black *et al.*, 2015), it is apparent that online environments encourage and enable a distinct set of techniques (O'Connell, 2003; Williams *et al.*, 2013;

Black *et al.*, 2015), and even new types of sex offender (Briggs *et al.*, 2011). This is partly a function of the anonymity offered by chatrooms (O'Connell, 2003; Berson, 2003; Ospina *et al.*, 2010; Briggs *et al.*, 2011), which enables offenders to repeatedly modify their identities in order to maximise their appeal to victims, as well as initiate the grooming process with multiple potential victims at once (Berson, 2003).

Online grooming and sexual abuse is inherently predatory and manipulative in nature (Berson, 2003; Malesky, 2007). Offenders are known to search for potential victims in chatrooms (Berson, 2003; Malesky, 2007) and build rapport with their targets using personal information gathered (Berson, 2003), promises of love and compassion (Marcum, 2007) and flattery (Ospina *et al.*, 2010; Williams *et al.*, 2013; Black *et al.*, 2015). Part of the process of grooming is an attempt to desensitise victims to sexual content by introducing sexually explicit conversation (Ospina *et al.*, 2010; Briggs *et al.*, 2011) and pornographic imagery, sometimes including nude pictures of groomers themselves (Berson, 2003; Malesky, 2007; Briggs *et al.*, 2011). Groomers often attempt to evaluate their target's willingness to engage in sexual contact and maintain secrecy (Craven *et al.*, 2006; Wolak *et al.*, 2010; Briggs *et al.*, 2011) before arranging offline contact (Webster *et al.*, 2012; Whittle *et al.*, 2014). It is worth noting, however, that not all chatroom groomers share the ultimate goal of meeting their victims offline (see Briggs *et al.*, 2011 for discussion on the differences between contact- and fantasy-driven offenders).

Language analyses of online sex abuse

One of the most influential studies of the linguistic interaction comes from O'Connell (2003), who consolidated the aforementioned grooming strategies into a unified typology of online grooming to highlight how communication technologies have impacted the grooming process. Working as a psychologist and posing as young females online, O'Connell gathered and analysed around 50 hours of chatroom conversations between herself and would-be child groomers. Using what appears to be a thematic content analysis—which she describes as "sociolinguistic profiling techniques" (2003: 8) —- she established a six-stage model of online grooming, purporting that groomers may progress through the following stages:

1. Friendship forming. Offender attempts to foster a relationship with the child by inquiring about personal details, information regarding other social networks frequented by the child, and asking for non-sexual photographs of the child.
2. Relationship forming. Offender attempts to extend the friendship stage by "creating an illusion of being the child's best friend" (2003: 7). This involves inquiring about the child's family, school life, friends and hobbies.
3. Risk assessment. Offender attempts to gauge the likelihood of detection by gathering information about the child's surroundings, computer location and possible monitoring of household internet activity.
4. Exclusivity. Offender attempts to establish mutual trust and dependency by alluding to the sharing of special bonds and understanding, and suggesting secrets can be shared with trust.
5. Sexual. Offender attempts to accustom the child to sexualised conversation by introducing sexual language and topics, and modifying sexual language in a way that best ensure a child's continued engagement.
6. Fantasy enactment. Offender attempts to engage the child in online or offline sexual activities using gentle persuasion and overt coercion.

This model was pioneering in terms of demonstrating the usefulness of analysing the language used in chatroom grooming conversations to determine common patterns in the process, and has significantly influenced subsequent research (e.g. Gupta *et al.*, 2012; Williams *et al.*, 2013; Black *et al.*, 2015. Unfortunately, O'Connell's methods are not explicitly described, so it is difficult to see exactly how the proposed stages were identified.

A further commonly cited criticism is that this model portrays grooming as a gradual process. While online grooming has been likened to a gradual seduction (Berson, 2003; Craven *et al.*, 2007; Ospina *et al.*, 2010), more recent studies suggest that the strategies involved are employed rapidly, and typically do not occur in the suggested sequence (Webster *et al.*, 2012; Williams *et al.*, 2013; Black *et al.*, 2015). Black et al.'s (2015) analysis of 44 chatroom transcripts employed both Linguistic Inquiry Word Count (LIWC) and Content Analysis methods, and found overlapping but different techniques used by groomers and whilst some of these were consistent with O'Connell's (2003) model, it was found that strategies of assessing risk, introducing sexual content and arranging physical contact were employed extremely early on in conversations.

In similar a vein Williams *et al.* (2013) found each of O'Connell's (2003) grooming stages to be present in their data, however, every one occurred within the first hour of conversation. One response might be that O'Connell's (2003) findings accurately reflected chatroom grooming at the time of her data collection, but that grooming practices have indeed evolved in the intervening years to become much more accelerated.

A final criticism of O'Connell (that also applies to Williams *et al.*, 2013, Black *et al.*, 2015, and indeed this paper) is that the analysis of transcripts between groomers and adults posing as children may differ from sexual abuse conversations with actual children. Williams *et al.* (2013: 150) point out that undercover researchers are likely predisposed to "act the fantasy victim" and maintain conversation despite content being uncomfortable. This may also be true of the decoys used by online vigilante groups studied in current data. Unfortunately, we found no academic literature regarding decoy language or its impact on grooming strategies. Additionally, Perverted Justice (PVJ) – the organisation who train online decoys and provide most of the data used in this line of research – offers no specific details regarding their training methods and practices. The problems of working with naturally occurring abuse conversations are discussed in detail by Grant and MacLeod (2016) and it has to be noted that this limitation is common to most studies in this area. But although the interactions examined in this paper do not involve 'genuine victims', they do involve convicted offenders, and in this sense it is fair to assume that the grooming strategies are in themselves authentic. Preliminary analysis of moves in genuine sex abuse conversations, being carried out in related work, is suggesting some additional moves compared with the PVJ data in the analysed in this paper.

Genre theory and move analysis

Swales' (1981) move analysis arises from genre studies and aims to describe the generic structures of texts that typically comprise a given genre (Biber *et al.*, 2007; Upton and Cohen, 2009). The current study however, does not examine grooming conversations as a genre per se, although it would be interesting to address the issue of whether it is possible to identify a genre or related genres of online grooming and sexual interactions by using an analysis of rhetorical moves. Rather, it takes move analysis for its pragmatic uses,

aiming primarily to determine some of the conversational goals of online grooming and how these can be achieved (or at least attempted), and whether the identified grooming moves follow any sort of sequential process.

A move, as Biber *et al.* (2007: 23) put it, "…refers to a section of a text that performs a specific communicative function". Individual moves work to achieve the broader communicative purpose of the genre (Swales, 1981, 1990), and may encompass individual steps which realise the move (Swales, 1981). It is the identified move set that gives a genre its "typical cognitive structure" (Bhatia, 1993: 30). To illustrate, Table 1 details Swales' (1981) proposed move structure of research article introductions.

Moves	**Steps**
1. Establishing research field	1. asserting centrality of the topic, or 2. stating current knowledge, or 3. ascribing key characteristics
2. Summarising previous research	1. using strong author-orientation and/or 2. using weak author-orientation and/or 3. using subject orientation
3. Preparing for present research	1. indicating research gap(s), or 2. raising questions about previous research, or 3. extending finding(s)
4. Introducing present research	1. stating purpose of present research, or 2. outlining present research

Table 1. Swales' (1981) move structure of research article introductions (adapted from Bhatia, 1993).

Common or conventional moves may be considered obligatory, while others are optional, and moves and steps may vary in length and order, and be repeated (Swales, 2004; Biber *et al.*, 2007; Tardy, 2011; Solin, 2011). Such variations are thought to reflect the intentions of the author, and to account for this element of choice, some (e.g. Bhatia, 1993 prefer the term strategy instead of step (Biber *et al.*, 2007). We too adopt the term strategy for the same reason. Once a move structure has been established, moves and strategies are described in terms of their typical linguistic characteristics (Bhatia, 1993; Baker, 2006; Biber *et al.*, 2007; Upton and Cohen, 2009). Thus in this paper we take the position that moves may be achieved through different linguistic strategies and that within each strategy a number of linguistic features may be found which help identify that strategy.

Although move analysis has been well demonstrated in the literature and the process for the identification of moves is described by Biber *et al.* (2007) there appears to be a significant issue in determining the reliability of move analyses. The question arises whether or not another researcher would identify different move sets for particular genres or texts and this needs to be addressed.

Data

Seven transcripts were obtained from the Perverted Justice (PVJ) website (http://www.perverted-justice.com) and detail interactions between online sex offenders and

their targets (the term 'target' is used deliberately, as the offenders' interlocutors in these cases were not children or genuine victims). PVJ is an American organisation that uses adult volunteers, or "decoys" who pose as minors in chatrooms and converse with would-be child groomers (Perverted Justice, 2008). Decoys pass the acquired information on to law-enforcement agencies, and where cases lead to conviction, full transcripts are displayed on perverted-justice.com. The declared aim of PVJ is that knowledge of the presence of PVJ decoys is intended to reduce the number of genuine grooming instances, by instilling an "extra bit of paranoia" in the minds of adults seeking to groom children online (Perverted Justice, 2008).

Ethical considerations

All transcripts are publicly available on the PVJ website. Where phone numbers or addresses appear in transcripts, these are removed by PVJ and replaced with "*edit number/address*". Thus the acquisition or use of this data might generally be considered acceptable; even so, all transcripts were further anonymised in that all participants' formerly displayed usernames were removed and replaced with O1, O2, etc. for offenders, and D1, D2, etc. for decoys.

With University ethical approval transcripts were acquired from the "Random Convictions" section of the PVJ site, and selected according to the following criteria:

1. That they demonstrate at least some grooming behaviour, i.e. transcripts whereby offenders immediately attempt to initiate sexual interaction were excluded. This was to ensure the study remained focused on grooming interactions as distinct from other possible forms of online sexual abuse conversations.
2. That all interactions occurred within a short time period (2006-2009). This was to minimise the chance that technological developments could cause significant variation in the grooming strategies identified.
3. That they demonstrate (as far as possible) full interactions, i.e. transcripts indicating a significant amount of offline or unpublished communication (e.g. text messages, emails, telephone conversations) were excluded. This was to ensure that the interactions could be explored to the fullest extent.

The above criteria reduced the number of appropriate available transcripts to seven. Full transcripts are available in Appendix C.

Table 2 displays transcript characteristics. Transcripts, offenders and decoys are hereafter referred to by number, e.g. T1, T2, O1, O2, D1, D2, etc.

Transcript/ Offender/ Decoy	Gender of offender	Offender age at time of offence	Offence location	Year of offence	Perceived target characteristics	Interaction span
T1/O1/D1	M	27	USA	2009	14 year old female	2 weeks
T2/O2/D2	M	30	USA	2007	13 year old female	3 days
T3/O3/D3	M	36	USA	2009	12 year old female	1 day
T4/O4/D4	M	27	USA	2009	14 year old female	2 days
T5/O5/D5	M	36	USA	2009	13 year old female	1 day
T6/O6/D6	M	26	USA	2006	12 year old female	6 days
T7/O7/D7	M	25	USA	2009	13 year old female	16 days

Table 2. Transcript characteristics from perverted-justice.com.

As demonstrated, all offenders are males between 25 and 36 years old and committed their offences in the US between 2006 and 2009. Offenders believed their targets to be females between 12 and 14 years old. Separate conversations were determined either by a significant lapse of time, or where parties clearly indicated their departure/re-entrance in a conversation.

Identifying moves

The procedure for identifying the moves loosely followed the 10 steps of conducting move analysis as outlined by Biber *et al.* (2007) but it rapidly became apparent considerable linguistic intuition and judgement were required in the identification and naming of possible moves from within the corpus and then in the tagging of these moves to specific sections of text.

This process involved identifying the broader communicative purposes of chatroom grooming which were in part derived from the previously noted definition of grooming of Craven *et al.* (2006). Each offender utterance was characterised as performing a particular or primary rhetorical function (e.g. building rapport, introducing sexual content) before being grouped according to functional and semantic themes. Unsurprisingly, there was some overlap with the themes identified by O'Connell (2003), Williams *et al.* (2013) and Black *et al.* (2015), but several additional themes were observed. Each theme was then identified as either a broad-purpose move or a lower-level strategy working to achieve a move. A pilot test was conducted whereby a single transcript was colour-coded for the presence of each identified move, which led to the adjustment and fine-tuning of move definitions, in attempt to ensure a clear set of criteria for the identification of moves.

All transcripts were then colour-coded according to the identified moves. Reliability of coding was reinforced by having a second coder independently analyse 10% of the data according to the preliminary move set. For lines 78-420 of Transcript 1 this second coder was tasked with categorising each offender utterance (150 in total) as realising one or more of the 14 identified moves, but the reliability analysis focussed on what was identified by each coder as the the *primary* move of each utterance. This analysis showed an 82% agreement between the two coders in the first instance. Further examination of the results showed some overlap between the categories *Building Rapport* and *Maintaining current interaction* and also overlap between *Immediate Sexual Gratification* and *Maintaining/escalating sexual content.* After some discussion it was decided that these were useful distinctions to maintain and the descriptors for each were edited to clarify the distinctions between categories. Other discussions around the reliability test led to further refinements of the move descriptions and the addition of three new moves. The most significant alteration of the initial move set came from the realisation that many grooming utterances fell somewhere between the moves identified as *Building Rapport* and *Maintaining/Escalating Sexual Content*; such utterances seemed better accounted for as a newly identified move: *Sexual Rapport.* Once all transcripts were coded according to the new move set, the move structures were compared, and patterns and differences identified. Finally, one move – *Assessing and Managing Risk* – was selected for a closer analysis of the linguistic features observed. At this stage, all utterances pertaining to *Assessing and Managing Risk* were isolated and examined for common linguistic patterns and or any individual linguistic features of note. The small quantity of data allowed this

to be achieved through an informal analysis and comparison of the selected moves and so more formal corpus methods were unnecessary.

Reflections

Our principal reflection on this process is that move analysis can be hard.

Although communicative purpose is generally considered to be a stable measure (Bhatia, 1993; Fairclough, 2003; Solin, 2011), distinctions can be fine-grained, and difficult to discern (Bhatia, 1993). A further issue is that a single utterance can achieve several distinct moves simultaneously, and identical utterances can serve contrasting functions. The coding process therefore relies largely on linguistic sensitivity and intuitive decision-making. Online transcripts are of course original datasets (as opposed to transcripts of spoken conversations) and thus show full interactions. The researcher can therefore read all the contextual information available to the participants in the chat and hope to infer the most likely communicative purpose. This is a tentative process though. In related work we are exploring whether identified moves can be closely associated with specific speech acts which in turn might rely on associated sets of verbs. Although beyond the scope of the current paper this may provide a method of deriving lexical cues to the identification of specific strategies and moves.

For the current study the piloting, redrafting and then the reliability testing was intended to provide as much rigour as possible in the identification of moves and the tagging of the texts.

Describing moves and strategies

The analysis described above revealed 14 common rhetorical moves and 87 strategies that contributed to achieving these moves across the seven transcripts. These are presented in full in Appendix A. The following section discusses only the most prominent strategies serving each move. Examples provided are taken directly from the transcripts unedited (so any typos are original), and all emphasis added is explicitly stated. It will become apparent that examples for each move may in fact work to realise a range of moves, therefore a certain degree of overlap will be seen.

The moves

Greetings are simply defined as words or phrases used to initiate conversations with targets, and are realised by common forms such as “hi” (T1, line 1) and “hi there” (T2, line 1).

Building Rapport is defined as attempts to establish and maintain a friendship/relationship with a target. Strategies include giving compliments, e.g. “pretty pic of u” (T1, line 91), inquiring about targets’ age, sex and location, e.g. “asl” (T3, line 6), and hobbies and current activities, e.g. “what do u listen to” (T1, line 131). Other strategies include using and eliciting statements of trust and reassurance, e.g. “ok I promise” (T7, line 145) and sympathy, e.g. “she was cheating on me” (T2, line 86), as well as positive evaluations e.g. “wow that’s cool” (T5, line 162) and attempts to impress in a non-sexual manner, e.g. “won a couple hundred at the casino” (T1, line 430). Additional strategies include requests for email addresses, and photographs and video calls which are not explicitly sexual.

Sexual Rapport is defined as the process of establishing and maintaining a positive sexual connection or relationship with a target. Strategies include giving sexual compliments, e.g. “sexy voice” (T2, line 324), portraying sex as pleasurable or beneficial to

targets, e.g. "u may like" (T4, line 175), and teaching/guidance regarding sexual issues, e.g. "do u know about the birds and the bees" (T4, line 96). Another strategy involves offering perceived control of sexual topics, e.g. "ask me something, anything goes" (T2, line 173). Additionally, this move involves diminishing targets' sexual anxieties, e.g. "yes offcourse [I'll bring condoms]" (T5, line 242), retracting sexual questions and comments, e.g. "never mind" (T4, line 268) and attempting to mitigate the severity or intensity of sexual content e.g. "have u masterbate before lol" (T4, line 132, emphasis added).

Maintaining Current Interaction is defined as attempts to ensure the continued flow of conversation. Strategies include backchanneling, e.g. "k", "ya", "i c" (T7), checking a target's presence in a conversation, e.g. "u still there" (T4, line 272), and explaining technical communication difficulties, e.g. "I got booted" (T5, line 156).

Assessing Likelihood and Extent of Engagement is defined as attempts to gauge a target's level of willingness to engage in sexual activity and/or offline contact, as well as the likely extent of sexual engagement and level of target pliability. Strategies include eliciting responses to hypothetical or proposed sexual scenarios, e.g. "would u get naked if i was there" (T7, line 54), probing ideas for sexual activities, e.g. "tell me what you wanna do when we hang out" (T2, line 257), and inquiring about previous sexual experiences and partners, e.g. "how old was the guy u had sex with?" (T6, line 18). Other strategies include checking consent to engage sexually and/or meet offline and giving/eliciting statements of seriousness, e.g. "i'm serious ifyou are" (T2, line 272). Also included are references to inappropriateness of behaviour/situation, e.g. "i can go to jail" (T7, line 57) and age gaps, e.g. "ohh, ur almost half my age" (T5, line 21), and inquiring about a target's practical ability to send photographs and engage in video calls.

Assessing Accessibility is defined as attempts to establish a target's physical distance from the offender, and other barriers which may prevent or disrupt access. Strategies include requesting general location, e.g. "so where u live at" (T1, line 147), checking targets' and parents' schedules, e.g. "when will u be home from school" (T7, line 163), "ur mom goes away on weekends" (T1, line 312) as well as checking targets' immediate surroundings, e.g. "is ur dad home?" (T6, line 243). Other strategies include inquiring about targets' relationship status, e.g. "u got a bf" (T7, line 24), and friends and family members, e.g. "do u have any bros or sisters" (T6, line 246). Strategies used to assess accessibility can initially look like rapport building.

Assessing and Managing Risk is defined as attempts to gauge and manage the types and levels of risk associated with detection, as well as accusation and conviction. Assessment-specific strategies include inquiring about a target's home life and relationship status, referring to age gaps and inappropriateness of behaviour, and giving/eliciting statements of privacy and secrecy, e.g. "it would have to b very privte" (T3, line 79). Management-specific strategies include diminishing the seriousness of sexual comments, e.g. "would u like to taste lol" (T4, line 170, emphasis added), designating topic control, e.g. "what would U like to do" (T5, line 175) and assigning blame or responsibility to a target or others, e.g. "don't want u getting caught", (T4, line 68). In addition to this, offenders may request photos, phone calls and voice messages in attempt to verify a target's identity or attempt to implement safety measures regarding a planned offline meeting, e.g. "put a flower on the door if all is clear" (T3, line 293). Assessment strategies are generally fairly conspicuous, but Management strategies are often subtle.

Assessing Personal Criteria Fulfilment is defined as information gathering to determine whether targets fulfil the personal requirements of offenders (i.e. young and female in all cases here), as well as physical preferences. Strategies include requesting age, photographs, videos and phone calls, as well as sexual and non-sexual physical descriptions, e.g. "how tall" (T3, line 318), "how big r ur tits" (T3, line 324). Other strategies include inquiring about a target's virginity and sexual orientation, e.g. "ru straight or ru not sure" (T4, line 266).

Assessing Own Role is defined as attempts to gauge the type of teaching and guidance, as well as the level of encouragement or coercion needed to achieve target compliance. Strategies include inquiring about sexual experience and knowledge e.g. "do u know about the birds and the bees" (T4, line 96), and indicating own experience levels, e.g. "i might b alil to advanced 4 u" (T3, line 39).

Introducing Sexual Content is defined as any contributions which introduce sexual topics.

Immediate Sexual Gratification is defined as attempts to achieve or satiate immediate sexual arousal. Strategies include requesting and sharing sexual photographs and videos, as well as phone and video calls. Other strategies include giving and eliciting sexual physical descriptions, e.g. "r u shave" (T7, line 126), eliciting hypothetical sexual scenarios, e.g. "if you were here with me right now, what woul dyou do?" (T2, 401) and instructing targets to perform sexual acts, e.g. "touch ur pussy" (T3, line 381).

Maintaining/Escalating Sexual Content is defined as efforts to ensure the continued discussion of sexual topics. In addition to the sexually-oriented strategies already noted, this move also includes fantasy planning, e.g. "would u wear a skirt with no panties under it" (T7, line 174), expressing sexual desires, e.g. "i wanna lick your pussy" (T2, line 147) and normalising sexual behaviours, e.g. "I met a girl on here the other day and we met last night and she sucked my cock and I licked her pussy" (T2, line 222).

Planning/Arranging Contact is defined as attempts to organise physical contact. In addition to fantasy planning, implementing meeting-related safety measures and suggesting offline meetings, strategies include offering and eliciting timing details, e.g. "i need to b at work bout 11pm" (T3, line 370) and contact information.

Sign Off is defined as contributions which indicate an offender's imminent exit from the conversation. It is realised by common forms such as "bye" and "night" (T3).

Only two identified moves (*Planning/Arranging Contact* and *Sign Off*) did not appear in all transcripts (5/7 and 6/7 respectively), and are therefore considered 'optional' (Swales, 2004). Because the study considers only 7 transcripts, it seemed unreasonable to term those moves occurring in every one 'obligatory' (Swales, 2004) and it is proposed that the remaining moves are best thought of instead as 'conventional'. This is with the exception of *Building Rapport*, which was identified as critical to the selection of interactions demonstrating grooming and can therefore be considered 'obligatory' (Swales, 2004).

Reflections on identified moves

As will be appreciated some of these moves such as *Greeting* and *Sign Off* would be expected in any online chat but others seem very topic specific. Previous researchers (e.g. O'Connell, 2003) have performed content analyses of different types to produce their typologies of grooming behaviours and it is possible that topic rather than struc-

tural features are the defining characteristic of online grooming conversations. There are however moves within these interactions which might also be found in other forensic and non-forensic contexts. Thus moves which are aimed at assessing the extent of interest and maintaining the current interaction may feature, for example, in sales interactions, as might arranging contact. There might be different forensic contexts where assessing risk is an observable move in an interaction and so on.

It may be the case that a particular collection of moves hints at a grooming genre, and if this could be demonstrated with a bigger and more diverse data set this in turn might be used to explore the idea of the existence of communities of practice.

The identified move set indicates that the grooming processes seen here are largely based around victim selection, various types of assessment, rapport-building and sexual content; perhaps surprisingly, no explicit 'persuasion' move was identified. This might be explained by the fact that the offenders' interlocutors were adult decoys tasked with the job of allowing such conversations to continue. As such, they may have demonstrated their compliance easily enough that the offenders were not motivated to increase the level of force asserted.

A further point is that moves do not occur with equal frequency in the corpus. While this was to some extent unsurprising (i.e. *Greetings* and *Sign Offs* were expected to occur fairly infrequently), we were interested in the frequency of the more substantive moves because this might indicate the more prominent communicative purposes involved in online grooming. Figure 1, for example, shows the relative frequency of moves across the seven texts and demonstrates that the most frequent move is that of *Building Rapport*. This may reflect our deliberate selection of transcripts exhibiting at least some grooming behaviour. It is notable therefore that the second most frequent move is that of *Maintaining and Escalating Sexual Content*. This demonstrates that even in transcripts specifically selected as examples of grooming, sexual abuse activity is frequently occurring.

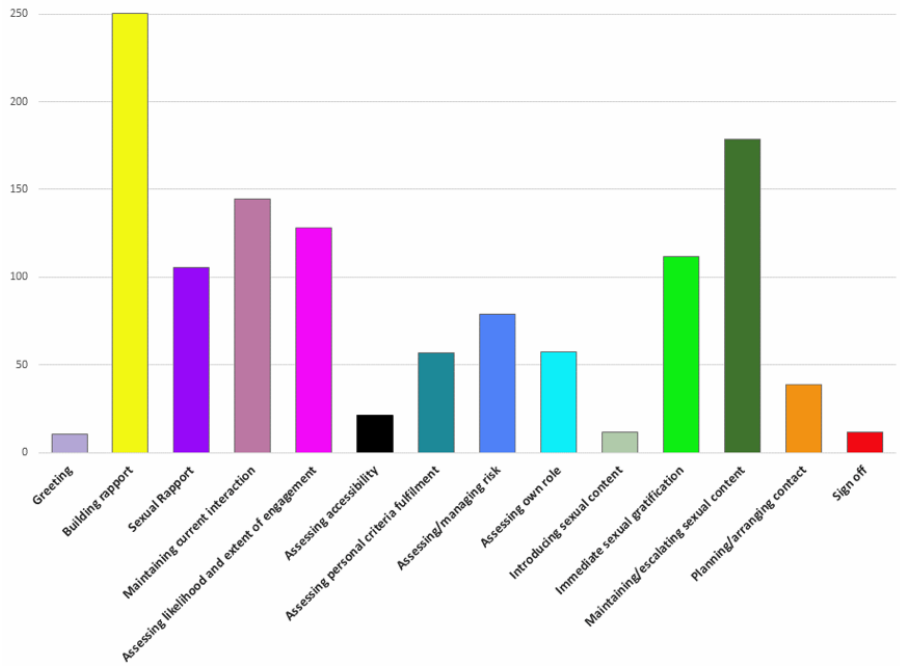


Figure 1. Frequency of identified moves across transcripts.

Finally, it should be noted that while this move analysis identified a number of shared communicative goals, the range of strategies used to achieve them is fairly broad. This suggests that chatroom groomers exercise a considerable amount of linguistic freedom in pursuing their aims, and that chatroom grooming interactions are not bound by rigid conventions as traditional genre types are. This, however, is a widely acknowledged characteristic of internet genres more generally (Erickson, 2000; Giltrow and Stein, 2009). The wide range of grooming strategies observed could be reflective of groomers tending towards individual 'styles' of grooming. As well as exploring whether this analysis can support the idea of a grooming genre, it would also be interesting to explore the level of consistency in grooming moves and strategies across transcripts featuring the same offender and compare this against other offenders.

Analysing a single move – *Assessing and Managing Risk*

In this section we examine the single move, *Assessing and Managing Risk*, and explore the relationship of some of the strategies and linguistic features which realise this move. This move is arguably one of the most crucial in the grooming process, working to minimise the possibility of the offenders' probable worst case scenario: being apprehended and found guilty of child grooming. This move encompassed no 'typical' linguistic features as such, but a point for consideration is whether moves which are realised consistently by a fairly limited set of linguistic strategies should be considered to have more validity than moves where this is not the case.

Some of the linguistic features found in *Assessing and Managing Risk* are unsurprising, for example the use of WH-questions referring to people close to the victim:

136. O3. (11:35:02 PM): who u gonna b wit
230. O3. (12:14:22 AM): what time is moms leaving
123. O5. (5:46:31 PM): when is she comein bak

Such strategies are fairly well documented in existing research (see O'Connell, 2003; Williams *et al.*, 2013 and Black *et al.*, 2015). However, management and mitigation strategies are less well explored. The following examples show how one offender attempts to manage the risks associated with his impending offline meeting with a target. The utterances are made towards the end of the interaction, and the offender believes he will be meeting the target the following day:

228. O3. (12:13:42 AM): hey give me ur address and ph #
306. O3. (1:12:13 AM): send me some pics
432. O3. (1:59:04 AM): dont tell any1 about this
439. O3. (2:00:38 AM): give address again

As demonstrated, *Assessing and Managing Risk* for this offender is often realised by imperative commands, which aim to elicit or confirm information regarding the target's contact details, identity, specific location and promises of secrecy. The imperative form expresses a sense of importance and urgency, suggesting that obtaining the requested information is crucial to the offender at this point in the interaction, and that his intention to meet the target offline is sincere.

These examples have illustrated some of the ways in which offenders *Assess and Manage Risks* associated with detection, but the risk of conviction requires slightly different strategies, the linguistic realisations of which are often subtle and complex. For

example, a commonly occurring strategy used to this end is the elicitation of sexual content, which sometimes involves asking questions about what the target wants:

25. O2. (11:34:34 PM): so, what do you wanna know about me?
92. O2. (11:55:37 PM): where do you want it?
269. O2. (11:21:02 PM): where wul dyou want me to cum then?
94. O3. (11:18:26 PM): so how far do u want to go?

Posing questions using the second person pronoun "you" or "u" shifts responsibility away from the offender, putting the onus of creating sexual content directly onto the target. Also, the use of the WH-question type (see Cheng, 1997) presumes the target's positive and immediate desire; there is no question if the target wants anything, just "where" and "how far". This makes it harder for the target to deny harbouring a sexual desire, than if questions were posed as polar interrogatives, i.e. 'do you want…'. Additionally, the use of "want" projects a stronger sense of inclination onto the target than other available choices, i.e. 'would you like…', which also lessens the target's ability to deny a sexual interest. These features might also serve to sustain an offender's inaccurate cognition that his target actually does wish to engage sexually (Hall and Hirschman, 1992). They may also later allow offenders to more easily assign responsibility to targets and deny their own.

Another feature which serves to diminish responsibility is found in Transcripts 4 and 6, and is termed here the 'mitigating lol':

132. O4. (12:41:03 AM): have u masterbate before lol
154. O4. (12:49:41 AM): if u get another cam will u show to me lol
166. O4. (12:56:21 AM): do u think my dick is big lol
64. O6. (8:25:08 PM): geez my dick is really hard right now lol
292. O6. (10:40:01 PM): u should make a nude vid and send it to me lol

Short for 'laughing out loud', this acronym is a well recognised feature of computer-mediated communication and text messaging (Tagliamonte and Denis, 2008; O'Neill, 2010). While *lol* has been seen to serve as a form of punctuation (Provine *et al.*, 2007; O'Neill, 2010), the above examples suggest a more deliberate function. The end position use here implies something vaguely playful or unserious about these contributions, which could mitigate the perceived sincerity of what are in reality, highly sexualised questions and statements. Possibly, the mitigating *lol* is used to protect the offenders' self-esteem, guarding against anticipated rejection. It could also serve to indicate offenders' own discomforts at the high-risk situation. But it may also have slightly more devious functions, like working to make targets feel more comfortable talking about sexual topics (which would also make lol a possible feature of *Sexual Rapport*). It could also feasibly serve to support apprehended offenders or defence lawyers in claiming that these sexual propositions were not sincere. It should be noted that this linguistic feature is so prevalent in O4's transcript (featuring 15 times), it almost seems like a habitual 'nervous laugh'. But importantly, it is largely found in his explicitly sexual contributions, and never in non-sexual *Building Rapport*, which is what suggests it might have a risk management function, as opposed to being a mere habit.

This portion of analysis has shown just a few of the linguistic devices used to *Assess and Manage Risk*, and how these choices might indicate an offender's personal motivations and intentions.

Analysing move structures within and between texts

Data visualisations

Colour-coded data visualisations were produced to depict the move structures of offenders' conversational contributions within each transcript. Through this paper we wish to introduce these visualisations and pick out some key points of interest to answer our specific data questions but it is our belief that these move visualisations or "move maps" provide a powerful method for exploring these and other similar texts. The visualisation for Transcript 1 is provided as Figure 2 but links to these transcripts can be found in Appendix B.

Each move map represents a transcript that details an entire interaction between one offender and one decoy from beginning to end. They are read from top to bottom, as a transcript would be read. Each coloured bar indicates a specific conversational turn associated with a specific type of move. The topmost bar in each therefore represents the first offender utterance made, and the bottom most bar the last. A 'tall' bar shows that the same move has been identified in a number of consecutive utterances, and colours appearing in-line horizontally show where single utterances have served multiple moves simultaneously. Each interaction may involve one or more conversations, breaks in which are indicated by horizontal grey lines. The move map in Figure 2 therefore shows that O1 and D1 had seven conversations, with the second being the longest. We can also see that unlike the other conversations, the second conversation contains a number of green blocks indicating sexualised content. While it would be interesting to isolate and compare particular parts of the interactions, for example the initial conversations for each offender/decoy pair (as in Williams *et al.*, 2013, who considered just the initial hour of conversation from the point of first contact), we wanted at this exploratory stage to examine these grooming processes in their entirety, whether they occurred over a single conversation or many. Considering each interaction holistically can also help indicate those in which offenders introduced sexual topics fairly quickly, compared with those in which offenders preferred to spend more time establishing a relationship beforehand.

From this visualisation a number of further observations can be made of the overall interaction. The first conversation contains no sexualised moves and might therefore be considered a grooming conversation in the restricted sense. It contains no overt criminal activity and it is only in light of what occurs in the second conversation that it becomes of interest. Fairly early in the second conversation there is the *Introduction of Sexual Topics* and the sexualised chat is then maintained through much of the conversation, but this is interspersed with the *Assessing and Managing Risk* and *Assessing Likelihood and Extent of Engagement* moves, as well as general maintenance of the conversation. In the final third of the conversation a new theme is introduced with a series of utterances pertaining to *Planning/Arranging Offline Contact*. These moves too are interspersed with sexualised conversation. The move map therefore helps reveal the structure of the interaction as being multi-tracked with moves being developed together rather than sequentially one after the other. Other transcripts, such as Transcript 3, show much more sequentially organised conversational structure with sexualised topics being separated out from other moves.

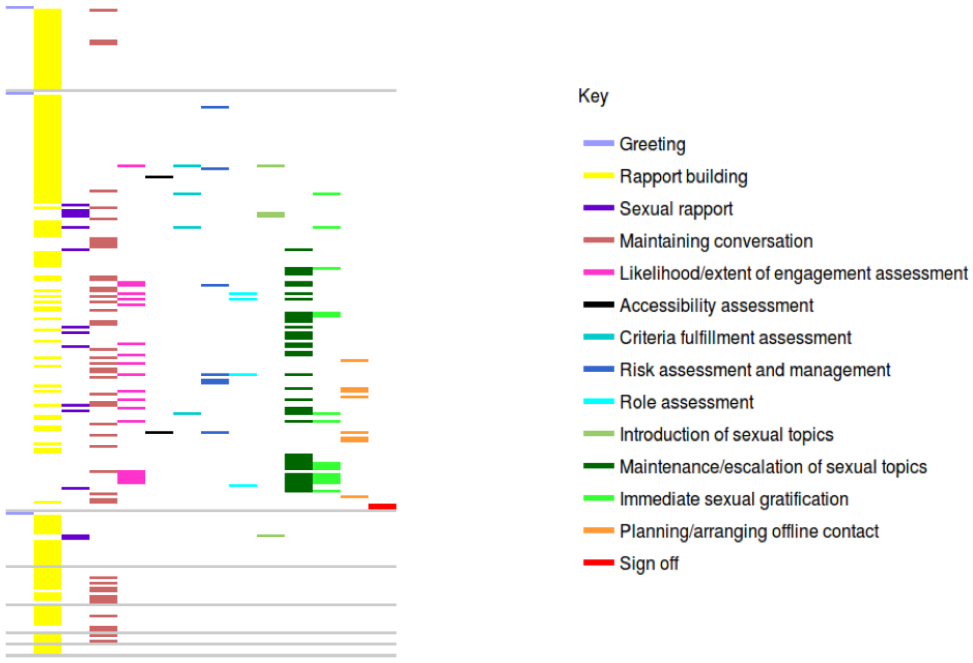


Figure 2. Move map for Transcript 1.

Figure 3 shows the comparison in use of moves across the transcripts and can help in contrasting the interactions. It is interesting to note, for example, that while Offenders 4 and 6 make no attempt at *Planning/Arranging Contact*, there are no other remarkable disparities between their use of moves compared with other offenders. For offenders who make no attempt to meet it might perhaps have been reasonable to expect more focus on *Immediate Sexual Gratification* than the rest of the group but this was not the case.

The move maps can be used to explore interactions in this way but also allows for analysis across different interactions.

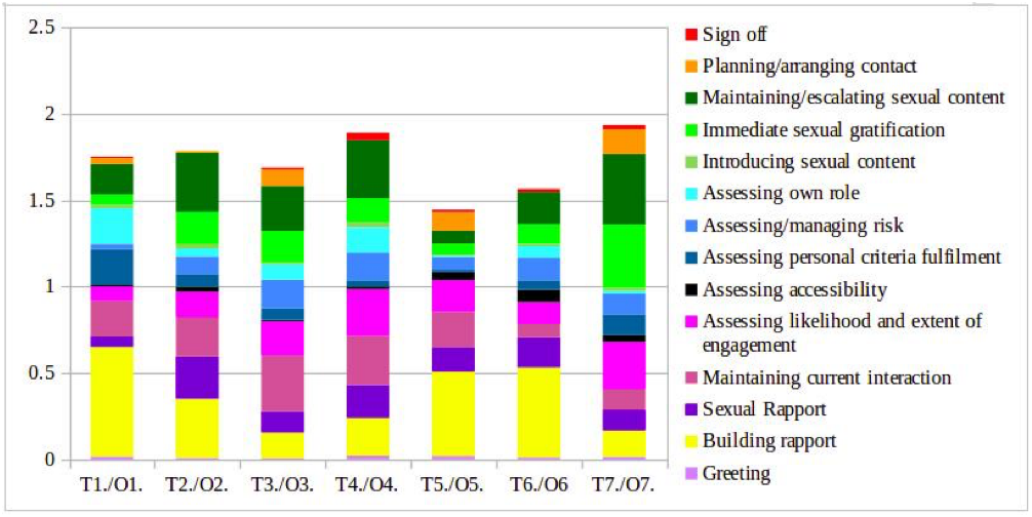


Figure 3. Percentage of offenders' conversational turns contributing to each move.

Preliminary comparisons show that more detailed analysis between transcripts is most useful when focussing on specific themes. Here we focus on three key areas of interest: Early Moves, Sexual Content and Planning Contact.

Early moves

Figure 4 below shows that Offenders 2 and 4 began their interactions with a *Greeting* (light purple), shortly followed by a period of *Building Rapport* (yellow) alongside a range of other moves. Unsurprisingly, all offenders in the sample began the grooming process in this way.

Figure 4. Initial sections of move structures of selected transcripts: Transcript 2 and Transcript 4.

Building Rapport is the most frequently observed move across the transcripts (see Figure 1), and is generally used throughout entire interactions, suggesting it is deemed important not just to establish a friendship/relationship with targets, but to maintain it.

Most offenders introduce a range of moves early on in their interactions, either immediately after or while *Building Rapport* (see Figure 4). *Assessing Likelihood and Extent of Engagement* (bright pink) and *Assessing Personal Criteria Fulfilment* (turquoise) occur within the first 25 lines of all interactions, except in T1; O1 spends a comparatively long time *Building Rapport* before introducing other strategies. *Assessing Accessibility* (black) also features early on, appearing in the first 25 lines of interactions, with the exceptions of Offenders 1 and 3, who were provided with general location information from their targets unprompted, and therefore likely less motivated to perform this Assessment. *Assessing and Managing Risk* (dark blue) and *Sexual Rapport* (dark purple) are also introduced quickly, appearing within the first 50 lines; again, with the exception of O1.

The general early introduction of combined Assessment strategies (*Likelihood*, *Criteria*, *Access* and *Risk*) appears to amount to a wider, more general communicative purpose: a *Risk-Reward Ratio Assessment*. These offenders tended to establish quickly whether a chosen target is a) likely to engage sexually, b) young and female, c) accessible and d) likely to pose risk. This is unsurprising, as offenders unfortunately have ample chatroom targets from which to choose, and this *Risk-Reward Ratio Assessment* enables them to determine whether the time and efforts spent grooming a particular target are 'worth it'. The early attempts to build *Sexual Rapport* indicate that sexual gratification is the primary goal of the interaction for most offenders; they generally do not appear to be looking for a genuine friendship as well as a sexual relationship, except possibly in the case of Offender 1.

With the exceptions of Offenders 1 and 5, Introducing Sexual Content (light green) also occurs early on in most interactions, within the first 55 lines (or first quarter).

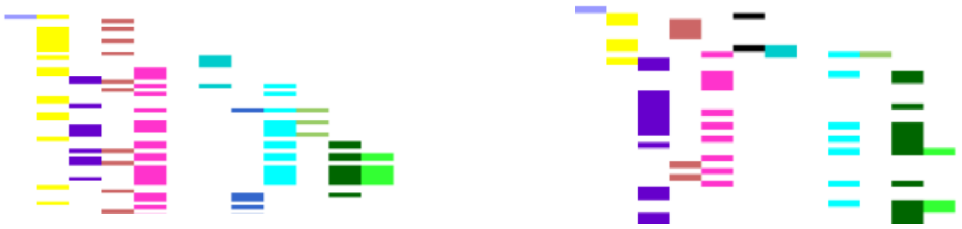


Figure 5. Initial sections of move maps of Transcripts 4 and 6 depicting strategies used before and after *Introducing Sexual Content*.

Figure 5 illustrates that even with the early *Introduction of Sexual Content*, this move is generally used after some combination of the aforementioned Assessment strategies. This is true in all cases, suggesting that these offenders expectedly prefer to 'test the water', before revealing their sexual intentions.

Sexual Content

In all cases, *Introducing Sexual Content* is immediately followed up by *Maintaining and Escalating Sexual Content* (dark green), which frequently coincides with *Immediate Sexual Gratification* (bright green). The latter two moves often co-occur in somewhat defined phases. These phases sometimes represent cybersex attempts, whereby offenders actively try to engage targets in sexual activity and elicit their experiences. Interestingly, offenders also commonly use *Sexual Rapport, Assessing Likelihood and Extent of Engagement* and *Assessing and Managing Risk* within these defined sexual phases. This pattern is illustrated in Figure 6:

Figure 6. Sections of move structures of selected transcripts depicting defined sexual phases concurrent with other moves - Transcript 5 and Transcript 6.

The combinative use of these strategies with sexual phases shows how these offenders attempted to ensure their targets' consent, increasing engagement and trust, at the same time as achieving sexual gratification. The frequent and erratic nature of these strategies throughout the transcripts shows how they continuously check such considerations throughout the entire grooming process, rather than trusting their targets' assurances implicitly. Conversely, *Assessing Accessibility* tends to occur at the beginnings of interactions, and is the least frequently revisited Assessment strategy (see Figure 1), suggesting that offenders generally accept this information fairly easily.

Planning Contact

Where the *Planning/Arranging Contact* (orange) move occurs, it generally does so throughout the latter two thirds of interactions, and only after all assessment moves have been employed. It frequently co-occurs with *Assessing and Managing Risk* and *Assessing Likelihood and Extent of Engagement.* This is to be expected; we can reasonably assume

that offenders would want to (as far as possible) confirm that their targets are sexually compliant and safely accessible while attempting to organise a high-risk physical encounter. *Planning/Arranging Contact* rarely occurs alongside sexually explicit content, but rather tends to feature in between and around sexual phases, as illustrated in Figure 7:

Figure 7. Sections of move structures of selected transcripts depicting sexual phases and *Planning/Arranging Contact*: Transcript 1, Transcript 5 and Transcript 7.

Figure 7 illustrates instances whereby offenders pause from a sexual phase to suggest an offline meeting, then continue with sexual content, then inquire further about the planned meeting, and so on. This pattern suggests that despite their ultimate goal, contact-driven offenders (Briggs *et al.*, 2011) remain motivated to engage in cybersexual activities. In fact, it seems that sexually gratifying conversation further motivates these offenders to achieve offline contact, rather than satiating their sexual desires. Focusing on particular combinations of moves in this way also allows us to consider individual offender tendencies; the above figure highlights that O1 switches frequently between sexual moves and *Planning/Arranging Contact*, whereas O5 approaches these moves in more defined phases. O7 seems to fall somewhere in between. Of course this is just one observed pattern; the move maps allow us to explore the relationships between any number of different move combinations.

These findings indicate that chatroom grooming interactions follow only a loose generic move structure. While we could perhaps predict some of the moves that occur pre- and post- *Introduction of Sexual Content*, the majority of moves are not confined to either phase, and there is a great deal of variation in the order and frequency at which moves are distributed across each transcript. As such, no single move structure identified could feasibly be described as typical of the dataset. Visualising the data as move maps usefully allows us to see how moves work together in complex networks to build the structures of the texts, and observe patterns and variation between each interaction. It is worth reiterating that both the moves and structures presented are likely highly influenced by the decoys' responses; grooming genuine victims might involve different sorts of strategies than those observed here. Thus a model of online grooming moves is only tentatively proposed:

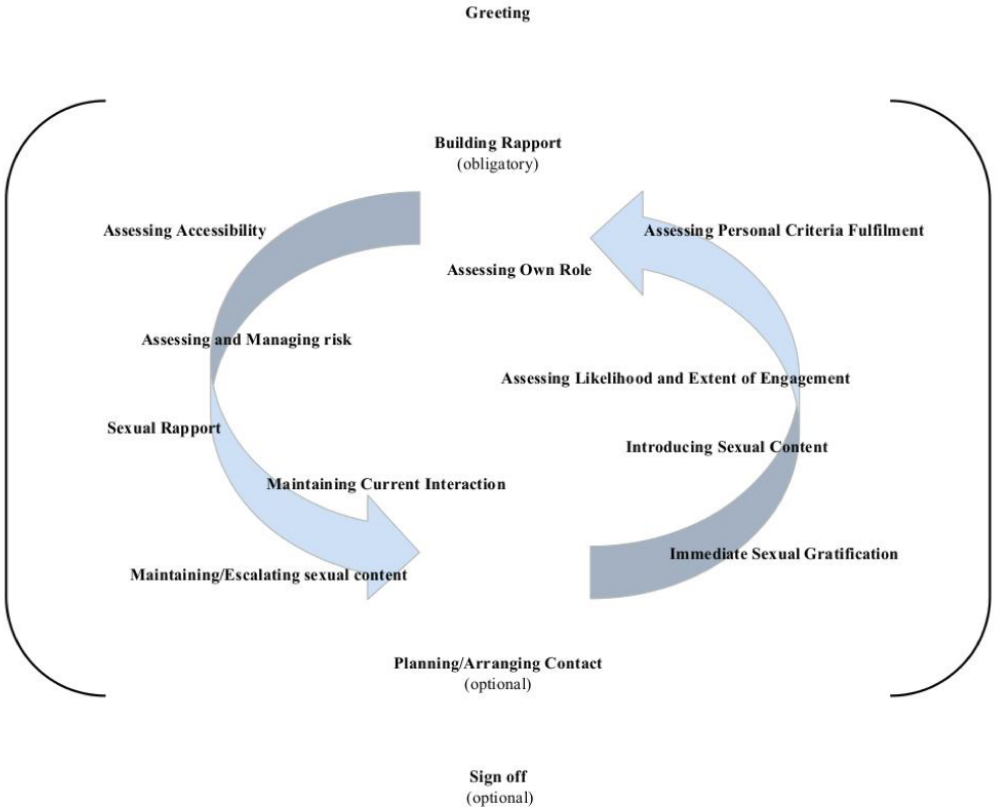


Figure 8. Rhetorical moves of online grooming conversations.

This model aims to demonstrate the rhetorical moves observed in chatroom grooming and at the same time highlight the fluid and shifting nature of these conversations. *Greeting* and *Sign Off* moves lie outside of the main group to signify their fixed positions at the beginnings and endings of conversations. Those moves inside the brackets are presented according to the loose structure seen across the transcripts, i.e. *Building Rapport* and Assessment strategies tended to appear first and before the *Introduction of Sexual Content*, which is then followed by more sexual moves and sometimes *Planning/Arranging Offline Contact* towards the latter end of conversations. However, these moves are presented in this scattered fashion rather than linearly to emphasize that the portion of conversation in between each *Greeting* and *Sign Off* may find any of these moves occurring and reoccurring at any time.

Labels are provided for optional moves (those move which do not occur in every transcript) and the obligatory move (*Rapport Building* – which was the basis for data selection). All other moves are considered conventional (in that they occur in all transcripts but would not individually be necessary to identify a grooming conversation).

Evaluating move analysis

The analysis firstly identified a set of common rhetorical moves used by the seven offenders, as well as a large number of strategies and low-level linguistic features working to achieve those moves. This showed that chatroom grooming is not always an obviously persuasive process, but involves a wide and complex network of strategies working to engage a target in sexual conversation and simultaneously assess their suitability.

It also suggested that chatroom grooming can be more reliably characterised by topic than structural features, and showed that sexual abuse occurred with a high frequency in conversations selected to illustrate instances of grooming. Secondly, we have seen a range of both conspicuous and subtle linguistic features used to *Assess and Manage Risk*, and explored how these might reflect individual attitudes and motivations of offenders. Finally, we have demonstrated a method of displaying move structures as 'move maps', from which we can see that grooming appears here not to be a strongly staged or formulaic process, although some loose structure was observed. The large variation in strategies and move structures suggests that grooming processes are largely guided by individual offender tendencies and styles, and the loose similarities observed seem likely a result of common goals associated with online grooming.

The study has shown that applying move analysis to chatroom grooming transcripts enables us to view grooming interactions from broad, structural perspectives, as well as identify some of the subtle and intricate functions performed by individual linguistic devices. In doing this, it seems that move analysis can usefully contribute to our understanding of grooming processes in two important ways:

1. Identifying specific grooming goals and determining how these are linguistically achieved (or attempted)

Through move analysis we can start to describe how grooming strategies are carried out and develop a discourse around the topic which is both detailed and accessible. Close examination of the various functions of grooming language can inform the way that instances of online grooming are detected by law-enforcement professionals, but also might inform teachers, parents, care-givers involved in child protection and education and, perhaps most importantly, help inform children and adolescents.

2. Visualising variation between grooming interactions

The move maps show that move analysis can enable us to see fairly quickly the variation in discourse structures across a set of grooming interactions. This is important because being able to clearly see the differences in structure, we can begin to explore the possible reasons for and sources of variation. It is possible that the same analysis applied to conversations between single groomers and their multiple targets might allow us to individuate groomers' particular styles and techniques. In this sense, move analysis is arguably worth exploring for purposes of online identity assumption; better understanding of grooming discourse structures may enable trained police officers to more convincingly assume the broader discourse-level features characteristic of their target offenders. It could also help to predict which moves or strategies will likely occur at given points in an interaction.

Future research

This move analysis naturally raises the question of whether chatroom grooming conversations might be considered a genre. Traditional conceptions of genre seem to require that they arise out of a "professional or academic community in which they occur" (Bhatia, 2004: 23), whose members share common communicative goals (Swales, 1990; Bhatia, 1993, 2004; Biber *et al.*, 2007). It is a real question as to whether this might be the case with online grooming interactions. It is possible that some offenders operate

in isolation, whereas others engage with like-minded offenders, exchanging strategies and indeed manuals for online grooming (Briggs *et al.*, 2011; Davidson and Gottschalk, 2011; McCartan and McAlister, 2012). The very existence of grooming manuals demonstrates that this sort of advice is being shared between people with similar goals. In this way, such manuals would form part of the intercommunication necessary for a discourse community to be deemed as such (Swales, 1990), and contribute one artefact to a "genre ecology" (Spinuzzi, 2003: 49) associated with online sexual abuse. All online groomers can be said to share similar goals, but specifically those operating collaboratively and sharing guidance through grooming manuals might be considered a discourse community. It would be interesting to examine grooming interactions involving members of an established grooming ring to see if their strategies indeed converge in any way. While the prospect of online grooming discourse communities is undoubtedly disturbing, it may in some ways be easier to detect larger groups of offenders who are benefiting from the experience of others, and whose strategies and language are likely to converge, than several individuals working alone. It would also be interesting to apply move analysis to large corpus of online sexual abuse conversations not specifically demonstrating grooming behaviour, to explore whether any sub-genres of online abuse interactions might arise. Description of genres and sub-genres of child sex offence activity and better understanding of the sources of variation in this linguistic activity may therefore throw some light on the question of discourse communities of online sexual abusers. This raises a general question of interest across a variety of forensic texts; for text types as diverse as suicide notes and threatening communications it is not obvious that there are discourse communities from which generic structures might arise. For these texts, any similarities would probably be explained in terms of the overarching discursive functions of the text type.

While it seems clear that move analysis has the potential to offer extremely useful contributions to our understanding of online grooming, it is not a perfect framework. One important issue yet to be resolved concerns the central notion of communicative purpose; how it is identified, and what criteria should be used to define and describe it. The robustness and reliability of move analyses would likely be improved by some conceptual development of the definition of communicative purpose as well as operational developments regarding the formalisation of the process of defining moves and strategies.

Conclusion

Understanding online abuse conversations better could significantly impact and refine the strategies used by law-enforcement bodies to detect and apprehend online sex offenders. Such research would also increase our knowledge about the nature of the advice and guidance shared among groomers, and therefore better inform the educational programmes which aim to teach children about internet safety. We have demonstrated here that detailed linguistic analysis can make a valuable contribution to this research and knowledge.

References

Baker, P. (2006). *Using Corpora in Discourse Analysis*. London: Continuum.

Berson, I. R. (2003). Grooming cybervictims: The psychosocial effects of online exploitation for youth. *Journal of School Violence*, 2(1), 5–18.

Bhatia, V. K. (1993). *Analysing genre: Language use in professional settings*. Essex: Pearson Education.

Bhatia, V. K. (2004). *Worlds of written discourse: A genre-based view*. London/New York: Continuum.

Biber, D., Connor, U. and Upton, T. A. (2007). *Discourse on the Move: Using Corpus Analysis to Describe Discourse Structure*. Amsterdam, Philadelphia: John Benjamins Publishing Company.

Black, P. J., Wollis, M., Woodworth, M. and Hancock, J. T. (2015). A linguistic analysis of grooming strategies of online child sex offenders: Implications for our understanding of predatory sexual behaviour in an increasingly computer-mediated world. *Child Abuse and Neglect*, 44, 140–149.

Briggs, P., Simon, W. T. and Simonsen, S. (2011). An exploratory study of internet-initiated sexual offenses and the chat room sex offender: Has the internet enabled a new typology of sex offender? *Sexual Abuse: A Journal of Research and Treatment*, 23(1), 72–91.

Cheng, L. L. (1997). *On the Typology of Wh-Question Types*. New York and London: Garland Publishing.

Craven, S., Brown, S. and Gilchrist, E. (2007). Current responses to sexual grooming: implications for prevention. *The Howard Journal of Criminal Justice*, 46(1), 60–71.

Craven, S., S., B. and Gilchrist, E. (2006). Sexual grooming of children: Review of literature and theoretical considerations. *Journal of Sexual Aggression*, 12(3), 287–299.

Davidson, J. and Gottschalk, P. (2011). Characteristics of the internet for child sexual abuse by online groomers. *Criminal Justice Studies*, 24(1), 23–36.

Erickson, T. (2000). Making sense of computer-mediated communication (cmc): Conversations as genres, cmc systems as genre ecologies. In *Proceedings of the 33rd Hawaii International Conference on System Sciences. IBM T. J. Watson Research Centre. [Online]*, Available from: http://www.computer.org/csdl/proceedings/hicss/2000/0493/03/04933011.pdf [Accessed: 12th June 2015].

Europol, (2014). *The Internet Organised Crime Threat Assessment: Child Sexual Exploitation Online - Overview. [Online]*. Available from: https://www.europol.europa.eu/iocta/2014/chap-3-3-view1.html [Accessed: 3rd September 2015].

Exploitation, C. and Centre, O. P. (2013). Annual review 2012-2013 and centre plan 2013-2014. [online]. Available from: https://www.ceop.police.uk/Documents/ceopdocs/AnnualReviewCentrePlan2013.pdf [Accessed: 14th May 2015].

Fairclough, N. (2003). *Analysing Discourse: Textual Analysis for Social Research*. London, New York: Taylor and Francis.

Finkelhor, D. (1984). *Child Sexual Abuse: New theory & research*. New York: Macmillan.

Foundation, I. W. (2013). Child line and the internet watch foundation form new partnership tohelp young people remove explicit images online. [Online]. Available at: https://www.iwf.org.uk/about-iwf/news/post/373-childline-and-the-internet-watch-foundation-form-new-partnership-to-help-young-people-remove-explicit-images-online. [Accessed: 17th July 2015].

Giltrow, J. and Stein, D. (2009). Genres in the internet. In J. Giltrow and D. Stein, Eds., *Genres in the Internet: Issues in the Theory of Genre*, 1–25. Amsterdam, NLD, Philadelphia: John Benjamins Publishing Company.

Grant, T. and MacLeod, N. (2016). Assuming identities online: experimental linguistics applied to the policing of online paedophile activity. *Applied linguistics*, 37(1), 50–70.

Gupta, A., Kumaraguru, P. and Sureka, A. (2012). *Characterizing Pedophile Conversations on the Internet using Online Grooming*. Available from: http://arxiv.org/pdf/1208.4324v1.pdf [Accessed: 14th January 2015]: Indraprastha Institute of Information Technology. [Online].

Hall, G. C. N. and Hirschman, R. (1992). Sexual aggression against children: A conceptual perspective of etiology. *Criminal Justice and Behavior*, 19(1), 8–23.

Internet Live Stats, (2015). Internet users in the world. [Online] Available at: http://www.internetlivestats.com. [Accessed: 11th May 2015].

Malesky, J. L. A. (2007). Predatory online behavior: Modus operandi of convicted sex offenders in identifying potential victims and contacting minors over the internet. *Journal of Child Sexual Abuse*, 16(2), 23–32.

Marcum, C. (2007). Interpreting the intentions of internet predators: An examination of online predatory behavior. *Journal of Child Sexual Abuse*, 16(4), 99–114.

McAlinden, A. (2006). 'setting 'em up': Personal, familial and institutional grooming in the sexual abuse of children. *Social and Legal Studies: An International Journal*, 15(3), 339–362.

McCartan, K. F. and McAlister, R. (2012). Mobile phone technology and sexual abuse. *Information & Communication Technology Law*, 21(3), 257–268.

O'Connell, R. (2003). A typology of cyber sexploitation and online grooming practices. Preston, England: Cyberspace Research Unit, University of Central Lancashire. [Online]. Available from: http://netsafe.org.nz/Doc_Library/racheloconnell1.pdf. [Accessed: 14th January 2015].

O'Neill, B. (2010). LOL! (laughing online): An investigation of non-verbal communication in computer mediated exchanges. *Working Papers of the Linguistics Circle of the University of Victoria*, 20(117–123).

Ospina, M., Harstall, C. and Dennet, L. (2010). Sexual exploitation of children and youth over the internet: a rapid review of the scientific literature. Institute of Health Economics: Alberta, Canada. [Online]. Available from: http://www.ihe.ca/advanced-search/sexual-exploitation-of-children-and-youth-over-the-internet-a-rapid-review-of-the-scientific-literature. [Accessed: 12th June 2015].

Payne, T. (2014). David cameron: Sexual predators who use 'disgusting' child grooming guides will face the same punishment as terrorists. *The Independent*, [Online]. Available from: http://www.independent.co.uk/news/uk/david-cameron-sexual-predators-who-use-disgusting-child-grooming-guides-will-face-the-same-punishment-as-terrorists-9293426.html. [Accessed: 19th August 2015].

Perverted Justice, (2008). Information about perverted-justice.com. [Online]. Available from: http://perverted-justice.com/index.php?pg=faq#cat1 [Accessed: 14th January 2015].

Provine, R. R., Spencer, R. J. and Mandell, D. L. (2007). Emotional expression online: Emoticons punctuate website text messages. *Journal of Language and Social Psychology*, 26(3), 299–307.

Solin, A. (2011). Genre. In J. Zienkowski, J. Ostman and J. Verschueren, Eds., *Discursive Pragmatics*, 119–134. Amsterdam, NLD, Philadelphia: John Benjamins.

Spinuzzi, C. (2003). *Tracing Genres Through Organizations: A Sociocultural Approach to Information Design*. Cambridge, Massachusetts and London, England: MIT Press.

Swales, J. (1981). *Aspects of Article Introductions: Aston ESP Research Reports No. 1*. Birmingham: Language Studies Unit, Aston University.

Swales, J. (1990). *Genre Analysis: English in academic and research settings*. Cambridge: Cambridge University Press.

Swales, J. (2004). *Research Genres : Explorations and Applications*. Cambridge: Cambridge University Press.

Tagliamonte, S. A. and Denis, D. (2008). Linguistic ruin? lol!: Instant messaging and teen language. *American Speech*, 83(1), 4–34.

Tardy, C. M. (2011). Genre analysis. In K. Hyland and B. Paltridge, Eds., *Continuum Companion to Discourse Analysis*, 54–68. London and New York: Continuum.

Upton, T. and Cohen, M. A. (2009). An approach to corpus-based discourse analysis: The move analysis as example. *Discourse Studies*, 11(5), 585–605.

Ward, T., Polaschek, D. L. L. and Beech, A. R. (2006). *Theories of Sexual Offending*. England: John Wiley and Sons, Ltd.

Webster, S., Davidson, J., Bifulco, A., Gottschalk, P., Caretti, V., Pham, T. and Grove-Hills, J. (2012). European online grooming project final report, european union. [Online]. Available from: http://www.europeanonlinegroomingproject.com/media/2076/european-online-grooming-project-final-report.pdf [Accessed: 14th January 2015].

Whittle, H. C., Hamilton-Giachritsis, C., Beech, A. and Collings, G. (2013). A review of young people's vulnerabilities to online grooming. *Aggression and Violent Behavior*, 18, 62–70.

Whittle, H. C., Hamilton-Giachritsis, C. E. and Beech, A. R. (2014). In their own words: young peoples' vulnerabilities to being groomed and sexually abused online. *Psychology*, 5(10), 1185–1196.

Williams, R., Elliott, I. A. and Beech, A. R. (2013). Identifying sexual grooming themes used by internet sex offenders. *Deviant Behavior*, 34(2), 135–152.

Wolak, J., Finkelhor, D., Mitchell, K. J. and Ybarra, M. L. (2010). Online "predators" and their victims: Myths, realities, and implications for prevention and treatment. *Psychology of Violence*, 1, 13–35.

Wolak, J., Mitchell, K. and Finkelhor, D. (2006). Online victimization of youth: Five years later. Crimes against Children Research Centre, University of New Hampshire. [Online]. Available from: http://www.missingkids.com/en_US/publications/NC167.pdf [Accessed: 11th May 2015].

Appendix A: Moves and strategies identified in grooming interactions

Move	**Purpose/description**	**Strategies**	**Example linguistic realisations (undedited from transcripts)**
Greeting	To initiate conversation with target.		hi', 'hey', 'sup'
Building Rapport (obligatory)	To establish and maintain friendship/relationship with target.	giving compliments/flattery	cutie', 'pretty pic of you', 'ur very cool'
		stating/eliciting asl (age, sex, location)	25/m/la', 'asl?'
		stating/eliciting hobbies and interests	what do u listen to', 'I play football'
		using positive emoticons (non-sexual)	:)
		stating/eliciting recent and current activities	i went to the tigers game yesterday', 'what u doing today',
		using/eliciting statements/promises of trust	ok I promise', 'trust me'
		giving/eliciting sympathy	aw that suks', 'she was cheating on me'
		expressing positive evaluations/approval/acceptance	wow that's cool', 'nice', 'thats fine'
		enticing/impressing target (non-sexual)	my brother and I have a band' 'won a couple hundred at the casino'
		offering reassurance	no prob', 'its fine'
		offering/requesting photographs and/or video calls (non-sexual)	u got a pic', 'u got a pic or a cam'
		requesting email address	whats ur email'
		offering gifts	maybe ill give u my cam'
Sexual Rapport	To establish and maintain positive a sexual relationship with target.	giving/eliciting sexual compliments	ur really hot', 'u have a very sexy voice'
		using positive emoticons in sexual context	:) ;) :p
		offering sexual ‘favours’	ill let u keep goin'
		portraying sex as fun/pleasurable/beneficial to target	really cool', 'u may like'
		suggesting ways to improve target’s sexual enjoyment/lessen target's anxieties towards sex	im very gentle' 'no it aint wrong', 'yes offcourse [I'll bring condoms]'
		enticing/impressing target in sexual context	did u think ur 1st cock would be so big', 'im 7 3/4'
		retracting sexual questions and comments	never mind'
		teaching/guiding target regarding sexual issues and actions	im gonna show u wear ur clit is', 'honey id love to teach u

		checking target's enjoyment of sexual conversation/actions	u like it', 'what do u think'
		offering target perceived control over sexual activities/topics	have your way with me', 'ask me something, anything goes'
		expressing approval/acceptance of sexual activities/topics	cool', 'mmm nice'
		mitigating severity of sexual questions and presented scenarios	lol', 'hehe', 'haha'
		politeness in sexual context	have u had sex before or no i fu dont mine me asking'
		approving/accepting target's portrayed lack of sexual experience	ok', 'ok no prob'
		showing/eliciting jealousy (in sexual context)	lucky him', 'I met a girl on here the other day'
		anticipating/accepting target's rejection	if u cant, its ok',
Assessing Likelihood and Extent of Engagement	To gauge target's level of willingness to engage in sexual activity and/or offline meeting. To gauge likely extent of target's sexual engagement and level of pliability.	eliciting response to hypothetical/future sexual scenarios (explicit or implicit)	would u get naked if i was there', 'would u do something for me right now'
		checking consent to meet/engage in sexual interaction	do you wannameet up sometime?', 'can iseduce u'
		eliciting opinions about offender's physical attractiveness and body parts	do u think my dick is big', 'u like it'
		stating/eliciting statements of seriousness about meeting and/or sexual activity	i'm serious ifyou are', 'for real would u like to'
		eliciting likely extent of target's sexual interaction	i just dont kn how far u r willing 2 go', 'do u think u would like that?'
		referring to age-gap (explicit or implicit)	im way older', 'ohh ur almost half my age',
		referring to inappropriateness of behaviour	i can go to jail', 'i am a bad boy'
		eliciting sexual questions from target (explicit or implicit)	what do youwann aknow about me?' 'ask me one more...and make it a GOOD ONE'
		eliciting ideas for activities	tell me what you wanna do when we hang out'

		inquiring about age of target's previous partners	how old was he', 'how old was the guy u had sex with?'
		inquiring about previous sexual experience	so, when was the last time you did something sexual?', 'did u play wit his cock'
		eliciting information regarding target's practical ability to send pictures, videos, engage in video chat	u got a cam', 'will u ever buy a cam'
		inquiring about target's feelings regarding alcohol and drugs	do u drink' 'how else do u party'
Assessing Accessibility	To determine target's physical distance and potential barriers to target.	requesting general location	asl', 'so where u live at'
		checking parents' schedules	ur mom goes away on weekends'
		checking target's schedule	when will u be home from school'
		checking target's immediate surroundings	u home alone', 'is ur dad home'
		inquiring about target's relationship status	u got a bf', 'do u still fuck the 18 yr old?'
		inquiring about other family members and friends	do u have any bros or sisters?'
Assessing Personal Criteria Fulfilment	To determine if target fits preferred criteria (young, female and other physical preferences).	requesting physical descriptions (sexual and non-sexual)	how tall', 'how big r ur tits'
		requesting photos, videos, phone calls for ID verification	do u have a pic', 'do u have any other vids?', 'call me in like 15 mins'
		requesting age of target	asl', 'when will you be 14?'
		inquiring about target's sexuality and gender preferences	ru straight or ru not sure', 'r u into guyz?'
		inquiring if target is a virgin	r u a virgin?'
Maintaining Current Interaction	To ensure continuation of the current conversation with target.	checking target presence in chatroom	u still there'
		backchanneling	ok, 'yeah', 'i c', 'ya', 'k'
		explaining current technological difficulties	cam crashed', 'i got booted', 'it happened again'
Assessing Own Role	To gauge type of teaching/guidance needed to manipulate target into compliance. To gauge level of encouragement/coercion needed to achieve target	inquiring about previous sexual experience of target	what all haveyou done sexually?', 'is this the first time'

	compliance.		
		Indicating own level of sexual experience	i might b alil to advanced 4 u'
		eliciting target's knowledge of sex and masturbation	do u know about the birds and the bees'
Introducing Sexual Content	To introduce sexual topics into conversation.		getting me horny', 'r u a virgin'
Immediate Sexual Gratification	To achieve/satiate immediate sexual arousal.	providing/requesting sexual photographs, phone calls, video calls	u got nude pics', 'wouldyou take a naked pic of yourself for me?', 'call me ok"
		giving/eliciting physical descriptions	r u shave', 'how big r ur tits'
		attempts to engage in cyber sex/instructing target to perform sexual acts	would u do something for me right now', 'just do it plz'
		eliciting hypothetical sexual scenarios/ reactions to hypothetical sexual scenarios	if you were here with me right now, what woul dyou do?', '
		inquiring about target's clothing	what u wearing', 'what color'
		inquiring about target's sexual feelings	how do u feel now'
		inquiring about target's previous sexual experiences including masturbation	what do u use', 'tell me again, what haveyou done seuxually?'
Maintaining/Escalating sexual content	To desensitise target to sexual topics. (In addition to those noted here, all previous sexually-oriented strategies fall within this move).	proposing/eliciting ideas for sexual activities (fantasy planning)	tell me what you'd want', 'would u wear a skirt with no panties under it'
		expressing wish for sexual interaction and particular sexual activities with target (online/offline)	i wanna lick your pussy', 'i wanna cum 4 u'
		designating topic control to target in sexual context	your turn to ask', 'make it good and dirty'
		planning future sexual engagement, including offline, phone sex, cybersex	we will try tomorrow when u call'
		normalising sexual behaviour	i met a girl on here the other day and we met last night and she sucked my cock'
Assessing and Managing risk	To gauge the level of risk of actions being detected. To manage and reduce the risk of actions being detected.	inquiring about target's home environment and family	is ur dad home?', 'got a dog'
		inquiring about target's relationship status	u have a bf'
		assuring/eliciting assurance of	it would have to b

		secrecy/privacy	very privte', 'promise?'
		referring to inappropriateness of behaviour/situation (explicit or implicit)	i can go to jail', 'i am a bad boy'
		diminishing seriousness of sexual comments	lol', 'hehe', 'haha', emoticons
		assigning blame/responsibility to target and others	don't want u getting caught', 'my friend lauren wants to see something that contains nudity'
		designating topic control to target	ask me anything', 'what would U like to do'
		requesting photos, videos, phone calls, voice messages to verify target identification	if i dont hear a young girls voice i wont say a thing and hang up'
		ensuring safety measures regarding offline meeting	put a flower on the door if all is clear',
		referring to age gap (explicit or implicit)	im way older'
Planning/Arranging Contact (optional)	To achieve offline contact with target.	suggesting offline meeting	i should cum over tomarrow',
		requesting/giving general location, address, phone number	give address again', 'ill call b4 i cum over'
		requesting/suggesting timing details	i have to work around 11pm', 'what time is mom leaving'
		planning specific activities for meeting (sexual or non sexual)	i want u to wear just ur bra and panties', 'open the door just like that'
		ensuring safety measures regarding offline meeting	put a flower on the door if all is clear',
Sign off (optional)	To indicate imminent end of current conversation.		bye', 'night', 'till tomarrow'

Appendix B: Data visualisations

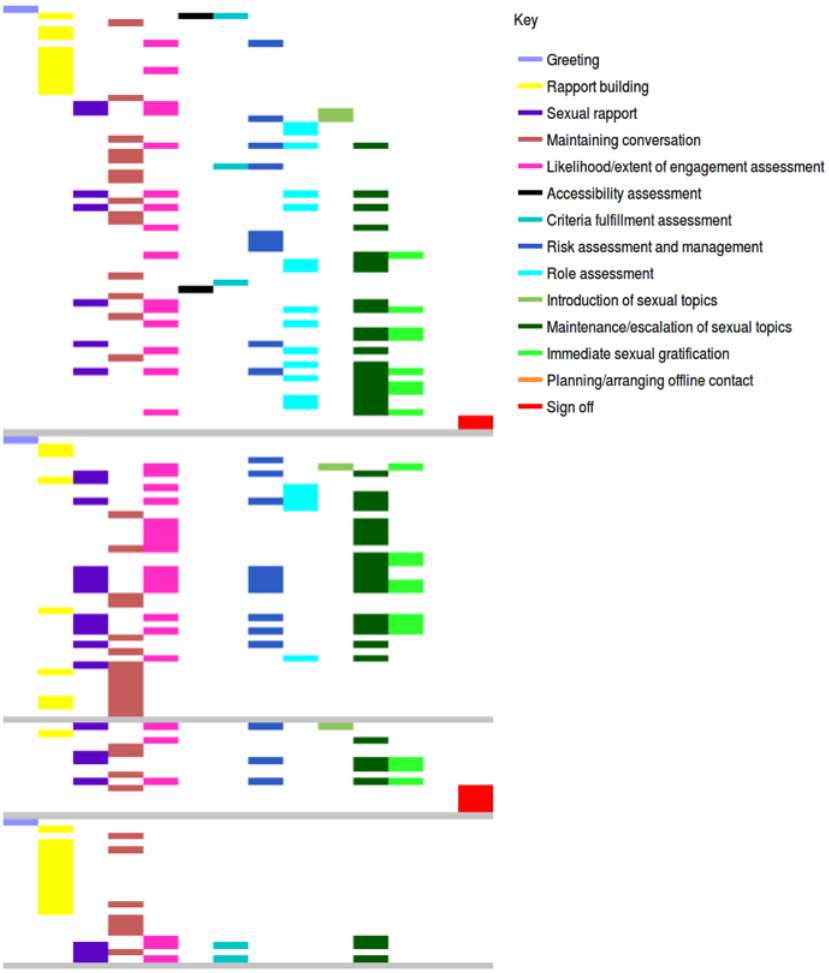
(Note: data visualisations represent the transcripts from beginning to end, and are read from top to bottom, as a transcript would be read. The topmost block in each therefore represents the first utterance made, and the bottommost block the last. Colours appearing in-line horizontally show where single utterances or strategies have served multiple moves simultaneously. A 'tall' block shows that the same move has been identified in a number of consecutive lines, or contributions. Horizontal grey lines separate individual conversations).

Transcript 1: Move structure

Transcript 2: Move structure

Transcript 3: Move structure

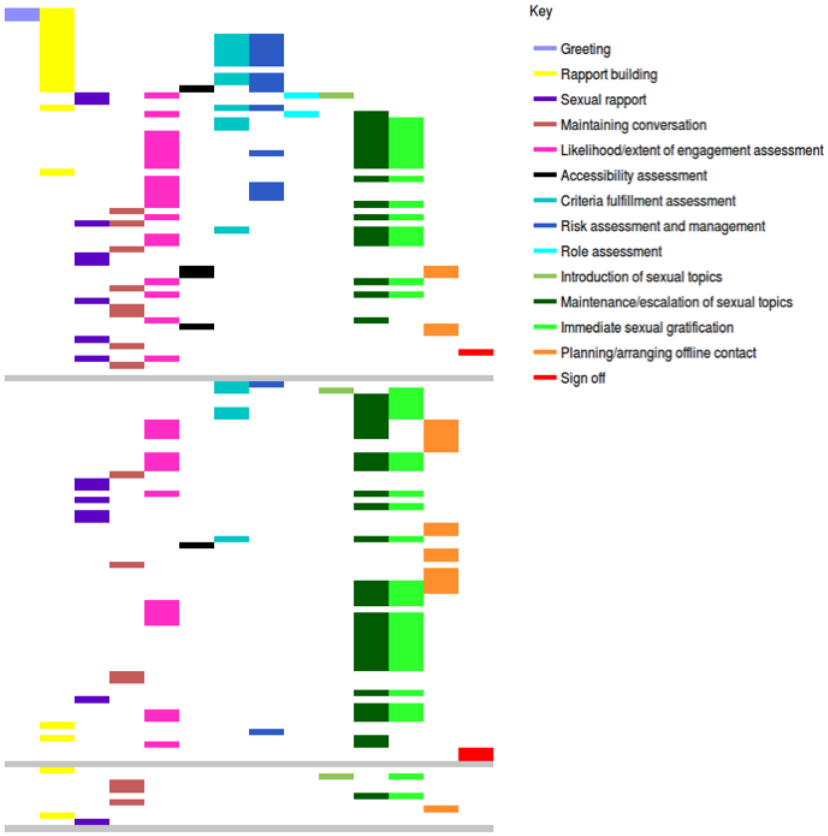
Transcript 4: Move structure



Transcript 5: Move structure

Transcript 6: Move structure

Transcript 7: Move structure



Appendix C: Links to transcripts of grooming conversations from pervertedjustice.com

Transcript 1: http://perverted-justice.com/?archive=bmichigan69

Transcript 2: http://perverted-justice.com/?archive=movieman2397

Transcript 3: http://perverted-justice.com/?archive=hunglowilove69

Transcript 4: http://perverted-justice.com/?archive=recon101_2000

Transcript 5: http://perverted-justice.com/?archive=shaka_k2000

Transcript 6: http://perverted-justice.com/?archive=nhbfullcontact21

Transcript 7: http://perverted-justice.com/?archive=darkprince666_2006