YouTube, 'drug videos' and drugs education

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Aims: This article reports on findings to emerge from a project examining YouTube 'drug videos' in the light of an emerging literature on the relationship between YouTube and health education. The aim of this article is to describe the variety of discourses circulated by the 'drug videos' available on YouTube and to consider the implications of these for mediated drugs education.

Method: The method used is a content analysis of a sample of 750 'drug videos' in which both video text and loader comments are used to code 'drug discourses'.

Findings: The findings point to the circulation of a variety of 'drug videos' of which official drugs education materials represent only a small proportion. The 'drug videos' created by YouTube users circulate a variety of 'drug discourses' including the 'celebratory' or hedonistic but also 'cautionary' videos intended to 'warn' or 'discipline' but others offer an 'amateur' or 'vernacular drugs education' while still others develop 'consumer discourses' which evaluate substances and technologies of intoxication as commodities.

Conclusions: The findings suggest that in the symbolic environment of YouTube drugs education strategies based upon 'old media' assumptions become highly problematic. This is firstly, because official drugs education material now has to compete with a variety of alternative discourses circulated in the 'drug videos' created by YouTube users. Secondly, some of these videos offer an alternative 'vernacular drugs education', or offer alternative understandings of drug use. But thirdly, in the era of Web 2.0 technologies such as YouTube, lines of communication are no longer characterized by simple linearity but multiple directionality, which mean that official drugs agencies are now even less assured of communicative control than in the past.

INTRODUCTION

This article reports on data to emerge from a project exploring the contribution that YouTube makes to popular cultures of drug consumption and substance misuse. The project aims to chart the variety of 'drug videos' available on YouTube; to identify particular 'drug discourses' circulated by these videos and via the comments posted by YouTube users in response. The term 'drug videos' in this article refers to videos about drugs that are consumed for the purposes of intoxication and extends beyond official drugs education material to consider the full variety of drug-related user-generated content (UGC) posted to the site. Given the parameters of the project, alcohol is not considered here. This article concentrates upon the distribution of 'drug discourses' in YouTube 'drug videos', the relationship between these and particular kinds of substances, and in the final discussion, the implications of these for mediated drugs education in the era of new media. A separate paper deals in more detail with the analysis of the discourses running through the comments posted to YouTube 'drug videos'. Although rates of increase in drug use amongst young adults have levelled off during the past decade they remain historically high in the UK and other western countries (Aldridge, 2008, p. 186). The prevalence of 'drug videos' on YouTube is a popular cultural expression of this situation.

A raw search of YouTube was undertaken using 80 search terms referring to formal and street names for substances classified under the 1971 UK Misuse of Drugs Act, 25 terms for 'legal highs' and five terms for solvents. For reasons discussed below, it is only possible to estimate video totals on sites such as YouTube. Nevertheless, after using the site's filter to exclude 'music', 'comedy' and 'games' and undertaking manual cleaning of the data,¹ it is possible to suggest that approximately 319,608 'drug videos' and 96,000 official drugs education videos are available and that (based on this estimate) 41,7% concern Class

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A drugs, such as opiates, ecstasy and hallucinogens like LSD; 43% involve Class B substances, such as cannabis; that legal high videos, mainly commercial advertisements, are likely to represent around 10% and that solvent abuse and Class C substances make up a relatively small proportion (0.33% and 4.9%, respectively).

New media, such as YouTube, have become important sources of everyday news, information and entertainment alongside traditional media (Hargrave & Livingstone, 2007; Thomas, 2011) and are, therefore, potentially important conduits for the circulation through popular culture of 'knowledge' and ideas about drugs. The exponential growth of YouTube is now a familiar feature of life in the twenty-first century. Sixty hours of video are loaded to the site per minute, or an hour per second, generating four billion views per day around the world (YouTube, 2012) which positions it as third in the global web traffic rankings after Google and Facebook (Alexa, 2012). YouTube has approximately 43% of the US on-line video market (Comscore, 2010). There is a growing interest in the role that YouTube plays in the circulation of ideas about health, health education, body image, identity and stigmatization (Backinger et. al., 2011; Carroll, Shensa, & Primack, 2012; Hussin, Frazier, & Thompson, 2011; Kim, Paek, & Lynn, 2010; Koff, Pumper, & Moreno, 2012; Yoo & Kim, 2012) but to date less attention has been given to the relationship between YouTube and the circulation of ideas about substance misuse. Of course, the importance of YouTube lies not only in the way its videos represent social phenomena but also in two functions that set new media apart from old; the potential for 'virality' (Naughton, 2012), or rapid recycling and recirculation of content, and its 'interactivity' (Bakker & Sadaba, 2008), the open invitation for others to respond, comment and engage in on-line dialogue. Lange (2010) has used YouTube videos to study the physiological effects of salvia intoxication outside the medical laboratory but only Hess (2009) has focused upon YouTube drug discourse in a study of the resistive responses to 23 official US Office of National Drug Control videos posted to YouTube in 2006.

YOUTUBE AND THE DISCIPLINARY IN POPULAR CULTURE

Web 2.0 technologies allow consumers of media to become producers of meaning (Ritzer & Jurgenson, 2010). This is, according to Burgess and Green (2009, p. 13), the 'participatory turn' in popular culture in which sites such as YouTube afford ordinary people unprecedented opportunities to create and circulate their own, everyday, popular culture. Many of the academic approaches to the study of new media culture, including that of Burgess and Green, have their roots in the 'British cultural studies' tradition which understands popular culture as a site through which the more powerful and the subordinate struggle for cultural dominance. Thus, we should understand YouTube as 'a dynamic cultural system' (Burgess & Green, 2009, p. vii) in which powerful corporate interests may shape much of the content. But, at the same time, those denied corporate or institutional power can still find means for expressing oppositional or subversive ideas, or simply indulge in 'empowering exhibitionism' (Burgess & Green, 2009, p. 27), or celebrate the mundane, or playfully construct on-line identities through the production of 'videos of affiliation' (Lange, 2009).

All of these practices can, indeed, be found within YouTube but what the 'cultural studies' approach sometimes overlooks is the extent to which popular culture has always retained disciplinary currents as well as oppositional or subversive. This is particularly true of the cultures which develop around intoxication. Some of the early 'classic' studies of English working class culture, for example, demonstrate this clearly in relation to the pub where drinking was regulated not only by law but by informal normative mechanisms. When drinkers 'had had enough' their friends often sent them home (Hoggart, 1957, pp. 72–73; Mass Observation, 1943). The approach taken in this project is to understand YouTube as a 'dynamic cultural system': a system that may certainly permit official drugs education to be undercut by subversive, oppositional and hedonistic drug discourses but which also circulates popular, disciplinary drugs discourses. These disciplinary discourses are expressed through 'cautionary tales' about the dangers, discomforts or possible humiliations associated with particular substances. Thus, the concept of discourse is understood here to refer to the ways in which cultural texts simultaneously reflect social identities, systems of knowledge and potentially contested social relations (Fairclough, 1995, p. 55).

METHODOLOGY

Confidence in sampling techniques has to be tempered by the knowledge that it is very difficult to produce anything more than approximations of the total aggregates for videos in any particular category on YouTube as most search engines, including YouTube itself, only produce returns to an upward limit of 1000 (Thelwall, 2009, p. 13). A further difficulty is that unlike 'old media' texts, YouTube constantly changes because of its dynamic quality, and that search engines including YouTube, itself, are likely to produce slightly different totals each time a search is replicated (Vis, van Zoonen, & Mihelj, 2011, p. 115). The panel for sampling videos was based upon the tripartite system of drug classification introduced by the 1971 UK Misuse of Drugs Act (classifications A–C) combined with the results of the initial raw search described in the 'Introduction' section of this article. Fifteen drug

search terms were selected from the original list of 80 in order to ensure that each drug classification group (A–C) was represented in the sample, together with legal highs and solvents. The search terms generating the highest numbers of videos in each of these categories were selected and this produced a sampling panel of 15 drug search terms which are listed in Table I. These 15 drug search terms were then used to extract the videos selected for the sample using the webometric software developed by Thelwall (2009) of the Statistical Cybermetrics Research Group at the University of Wolverhampton.² This software will minimize the danger of double counting, guard against 'cherry picking' examples and will interrogate YouTube to produce summaries of the available metadata including video watch counts and comment networks. It uses the Bing search engine to generate lists of up to 1000 video URLs for each search term and the first 50 in each list were chosen to be manually coded for this study.³ This procedure generated a sample of 750 YouTube videos.

The coding categories were devised on the basis of a pilot study examining the discourses at play in a small sample of YouTube drug videos undertaken earlier in 2010 and reported in Manning (2011). Discourses of hedonism or the celebration of the experience of drug use are often noted in studies of the language of intoxication (Davies, 1997; Griffin & Bengry-Howell, 2009; Jones, 2005; Keane, 2009). The coding schedule was designed to capture any UGC celebrating the pleasurable or humorous experiences of taking illicit substances or 'legal highs'. However, while the hedonistic celebration of drug use in YouTube videos might not be surprising, the pilot study indicated that in the case of some substances there might be quite high proportions of videos in which the loader wanted to

Table I. Selected drug search terms as accessed on 24 February2012.

| | Mean | Estimated total videos on YouTube ^a | |
|----------------|-----------|--|--|
| | video | | |
| Search term | watches | | |
| Crack cocaine | 6,624,908 | 9559 | |
| Cocaine | 2,957,000 | 13,489 | |
| LSD | 1,520,057 | 16,434 | |
| Ecstasy | 929,558 | 4492 | |
| Crystal meths | 787,024 | 8613 | |
| AMT legal high | 782,656 | 2680 | |
| Heroin | 762,587 | 11,024 | |
| Pot drug | 644,304 | 43,605 | |
| Cannabis | 354,233 | 36,432 | |
| GHB | 305,462 | 3817 | |
| Salvia | 258,242 | 16,074 | |
| Ketamine | 232,732 | 3184 | |
| Glue sniffing | 230,062 | 706 | |
| Solvent abuse | 9566 | 168 | |
| Party pills | 2417 | 7631 | |
| | | | |

Note: ^aAfter manual clean of the search returns.

communicate a critical perspective stressing the dangers and risks, or simply the lack of dignity associated with the effects of certain substances. This kind of 'vernacular drugs education'⁴ appears not to have received attention in the contemporary literature although as noted above the 'disciplinary' with regard to alcohol and drug use has always been a feature of popular culture. The coding schedule therefore is designed to capture any UGC, not loaded by an official drugs or health agency, and which is explicitly intended to demonstrate the negative consequences of 'effects' or loss of 'dignity'. This is the 'cautionary' category. In some instances the video text alone was ambiguous but in most instances reference to the loader comment⁵ confirmed the 'intended meaning' as either 'celebratory' or 'cautionary'. This follows Davies (1997, p. 170) in stressing the importance of intended meaning or 'motivation' in analysing 'drug discourse'. A small number were coded as 'other' if the meaning was impossible to determine even after analysing the text and checking the loader comments. Some drug video content is neither 'celebratory' nor 'cautionary' but 'reflective' in that, typically in 'a piece to camera', the loader will reflect on their drug experiences as if producing a drug blog in a cerebral rather than hedonistic fashion. Jones (2005) refers to a 'discourse of fascination' to describe the preoccupation with technologies of intoxication shown by some drug users. A proportion of UGC is devoted to demonstrating the advantages or disadvantages of particular technologies of intoxication, or to providing 'consumer advice' about particular kinds of substances. Such videos are captured in the 'Do It Yourself/Consumer Advice' category. Some YouTube legal high videos are produced by commercial enterprises and are simply advertisements for legal high products. These are distinguished from videos claiming an 'independent' consumer 'watch dog' role and coded separately. Some UGC attempted to offer a satirical or humorous take on either official drugs education or the actual process of consuming drugs and if the satirical intent was clear through reference to loader comments this was coded as 'satirical'. Drugs education material produced by official agencies or departments of state was coded either as 'traditional' or 'new', the latter category being intended to capture the movement away from 'fear arousal' and abstinence strategies towards the more 'knowing' or 'streetwise' use of irony, as in the UK government's Talk to Frank campaigns and some other information-based, harm reduction approaches. The strategy behind the Talk to Frank campaign acknowledged that traditional approaches to mediated drugs education had failed to engage young people in the UK and that a new approach using humour which was 'cool' but not 'too laddish or cringe-making' was required (Frank, 2003). The distinction between 'traditional' and 'new' drugs education used to code videos in this study notes this shift from traditional 'fear arousal' messages to the more 'knowing' and 'ironic' approaches that combine humour with information provision. The UK government's *Talk to Frank* campaign is the obvious example though there are others, such as MTV's *Don't Drive and Drug* campaign.

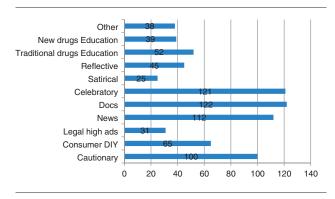
Finally, professionally produced news or documentary material was included but coded separately from UGC. Some YouTube researchers have excluded this material, choosing to focus exclusively upon UGC (e.g. van Zoonen, Vis, & Mihelj, 2010) but such material was included here on the grounds that it still contributed to the symbolic environment in which drugs discourses circulated and that in many cases it is loaded to YouTube through a process of re-mediation by other YouTube users for their own purposes, not necessarily those of the original professional film makers. This kind of material could be identified by the presence of a news organization logo or other indication of professional sourcing, such as the presence of a news journalist in the clip.

Videos were coded by the one discourse that was intended by the loader to frame the text. While it is certainly the case that YouTube 'drug videos' are often open to a variety of interpretations by other YouTube users, and were thus potential sources of multiple discourses, in most cases the singular intention of the producer or loader was clear. For example, in 'celebratory' videos the intention to celebrate intoxication would be clearly signalled in the selection of visual shots, sound and underlined by the loader comment. 'Legal high ads' and 'consumer advice/DIY' were always quite straight forward to code. In a few cases, distinctions between 'celebratory' or 'cautionary', on the one hand, and 'reflective', on the other were less clear cut but loader comments in almost every case resolved possible ambiguities and, in any case, 'reflective' videos were always understood as 'pieces to camera.'

FINDINGS: DISCOURSE AND DRUG VIDEOS

Table I provides data on the average number of times videos in each search term category had been watched. Official drugs education videos are watched on YouTube relatively infrequently compared to most other 'drug videos', excepting 'solvents' and 'party pills'. Table II presents a summary of the overall distribution of the 750 videos by 'drug discourse'. While a large proportion of videos were sourced from professional news clips or documentaries about drugs in terms of UGC, 16% were 'celebratory'; 13% 'cautionary'; 8.7% 'DIY/consumer advice' and 6% 'reflective' videos. While drugs education videos may not be *watched* so frequently they made up 12% (traditional and 'new' combined) of the video content available in the sample. The following cases consider each 'drug discourse' with a qualitative discussion of particular video examples chosen because they

Table II. The sample of YouTube drug videos coded by drug discourses.



illustrate key textual features typical of that 'drug discourse'.

(a) The celebratory

The effects of salvia are hallucinogenic, usually very visible in terms of behaviour, and follow rapidly (usually just minutes) after inhalation (Lange, 2010). These make salvia a popular choice for 'celebratory' videos in which friends film each other experiencing the hallucinogenic effects and 'salvia videos' are now a YouTube genre in their own right as indicated by the frequent use of titles such as, 'the best salvia trip video ever', 'hilarious 20 x salvia first trip best ever' or 'best salvia video ever!'. More than half of all the salvia videos coded were 'celebratory' (Table III, panel b). The numerical rating of salvia strength (20 x, etc.) is a consequence of its status as a legal high sold openly by commercial companies in the UK and parts of the US. What all these have in common is a focus upon the bodily pleasures of intoxication, laughter, a sharing of the experience amongst friends or in the case of 'Mom and Dad take Salvia 20x' family and fun.⁶ There may be recognition of the pharmacological power of salvia and the possibility that this may result in a 'bad' experience but in 'celebratory' videos this is overridden by the more dominant emphasis upon the pleasures of intoxication. Salvia videos tend to prompt a lot of comments from other You Tube users. For example, 'Salvia 80 x Crazy Trip' had over 842,132 viewings, 1136 'likes', fewer than 200 'dislikes' and over 2000 comments. The comment strings reveal a complex interweaving of responses: some simply enjoy the humour referring to the intoxicated behaviour and adding 'laugh out loud' or 'HaHaHa', other comments raise 'technical' issues about techniques of intoxication but there are also those who report 'bad' salvia experiences and challenge the 'celebratory' discourse underpinning these videos, as in the comment posted to 'Salvia 80 x Crazy Trip': 'This is what is feels like as you're about to die.'

| Panel a | | | | | | | |
|-----------------------------|----------|----------|---------------|---------------|---------------|-------------|----------------|
| Discourse | Cocaine | LSD | Ecstasy drug | Crack | Crystal meths | Heroin | Pot drug |
| Cautionary | 6 | 6 | 6 | 30 | 32 | 14 | 0 |
| DIY | 0 | 2 | 2 | 2 | 0 | 4 | 22 |
| Legal high ads | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| News | 36 | 2 | 18 | 24 | 20 | 22 | 20 |
| Docs | 32 | 48 | 10 | 16 | 12 | 36 | 2 |
| Celebratory | 0 | 20 | 22 | 4 | 0 | 0 | 20 |
| Satirical | 10 | 0 | 2 | 2 | 2 | 0 | 12 |
| Reflective | 2 | 6 | 2 | 4 | 0 | 8 | 2 |
| Traditional drugs education | 0 | 6 | 30 | 4 | 22 | 2 | 0 |
| New drugs education | 8 | 4 | 6 | 10 | 12 | 10 | 0 |
| Other | 6 | 6 | 2 | 4 | 0 | 4 | 22 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Panel b | | | | | | | |
| Discourse | Cannabis | Ketamine | Glue Sniffing | Solvent abuse | Salvia | Party pills | AMT legal high |
| Cautionary | 0 | 22 | 20 | 6 | 18 | 4 | 2 |
| Consumer DIY | 26 | 2 | 0 | 2 | 4 | 8 | 52 |
| Legal high ads | 2 | 0 | 0 | 2 | 0 | 44 | 14 |
| News | 8 | 6 | 6 | 18 | 2 | 16 | 6 |
| Docs | 22 | 6 | 34 | 6 | 8 | 2 | 0 |
| Celebratory | 22 | 26 | 14 | 32 | 54 | 12 | 2 |
| Satirical | 0 | 4 | 8 | 8 | 0 | 0 | 4 |
| Reflective | 12 | 8 | 6 | 2 | 12 | 8 | 16 |
| Traditional drugs education | 0 | 0 | 10 | 20 | 0 | 0 | 0 |
| New drugs education | 0 | 10 | 2 | 4 | 2 | 2 | 0 |
| Other | 8 | 16 | 0 | 0 | 0 | 4 | 4 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Table III. Drug search terms by drug video discourse (%).

'Solvent abuse', 'ketamine', 'cannabis', 'pot drug', 'ecstasy' and 'LSD' also all returned high proportions of 'celebratory' videos though not as high as 'salvia' (Table III). The same elements can be found in these: the emphasis upon the physical and bodily impact of intoxication and the affirmation of a shared experience of fun. Thus, for example, 'Hi I'm High with a Giraffe' features a girl clearly enjoying the experience of smoking cannabis through a 'bong' whilst waving a toy giraffe at the camera; 'GGDUB - Ashley & Cassie Jane' features two girls having fun smoking cannabis in their car; 'Daffid Snorting some Furniture Polish He a Glue Sniffer' shows a young adolescent sniffing an aerosol and laughing while his friend films him, and predictably a number of 'ecstasy' videos 'celebrated' an ecstasy 'high' by representing the 'fun' and 'togetherness' experienced within clubs and dance venues as in 'Ecstasy: the Gretest Drug in History Part 1'.7

But some kinds of substances appear not to lend themselves to the production of 'celebratory' videos. The search terms 'cocaine', 'crystal meths' and 'heroin' did not include any 'celebratory' videos at all and 'crack cocaine' only two (Table III). Part of the explanation for these patterns may lie in the differential distribution of material and symbolic resources between communities of drug users but also the symbolic frameworks associated with particular substances. Heroin and crystal meth users are less likely to have access to the material resources (Foster, 2000), for example, mobile phones, laptops, YouTube accounts, required to produce drug videos. But we also know that taste hierarchies operate within popular drug cultures (Measham & Moore, 2009; Russell, 1993; van Hout, 2011; Ward, 2010): put bluntly while some substances are regarded as 'recreational' and are incorporated within fashionable 'drug styles', others are associated with the stigma of social pathology and these are less likely to be 'celebrated' by users.

(b) The cautionary

The search terms 'crack cocaine', 'crystal meths', 'GHB', 'ketamine' and 'glue sniffing' all returned relatively high proportions of 'cautionary' videos while the search terms 'cannabis' and 'ecstasy' generated very few (Table III). 'Cautionary' videos all had certain elements in common; a focus upon the visible and physical signs of intoxicated bodily impairment. For example, there appeared to be a 'crystal meths genre' which involved a degree of 'vernacular creativity in 'photo-shopping' faces to represent the visible effects of taking the drug over a prolonged period

RIGHTSLINKA)

of time, while more than one dentist loaded videos demonstrating the consequences of prolonged crystal meths use for teeth.⁸ In the case of ketamine and GHB, there is a preoccupation with the loss of bodily control and motor impairment that users experience. These are not drugs that induce the 'cerebral highs' associated classically with LSD, or contemporary hallucinogens.

The GHB video 'little too much GHB' illustrates the point that YouTube encourages a fascination with the routine and mundane of everyday life (Burgess & Green, 2009, p. 8), except in this instance, and rather bizarrely, friends continue looking at a PC and doing their washing while another friend films the wild contortions of a companion as the effects of GHB kick in. There is no laughter, the framing of the behaviour is not 'celebratory' and the loaders comments confirm a critical, disciplinary stance, 'CRAZZZY VIDEO OF A MAN TRIPPED OUT ON GHB'.9 To push the point home, an insert is edited into the video at the 22 second mark explaining that 'flopping' is the 'uncontrollable flailing arms, slapping oneself. velling of profanity, etc.'.

Both GHB and ketamine can immobilize the body or severely impair physical co-ordination. A number of 'cautionary' videos focus upon this and the associated loss of dignity, particularly if this occurs in a public space. 'Ketamine King'¹⁰ is a video made by a dance club security man who used his phone to film a ketamine user lurch zombie-like along the street, body bowed. The doorman explains to some passers-by that, 'he's having a ketamine attack and I'm filming it... when you take a lot of ketamine you don't really know what you're doing...that's about as far as you can go without falling into a K hole', and a little later, 'he's done mate... he's a kipper without a stream'. A number of other voices can be heard laughing and making jokes at the expense of the subject. The video has been created as a 'cautionary tale'; it is disciplinary in intention although as with most YouTube comment strings, there is still a complexity in the discourses at play. One commenter embraces the 'cautionary' discourse intended to position the subject as an object of ridicule, posting 'bet you'll be a fucking vegetable very soon, good going loser' (duey07), but another comment suggests a sympathetic response leaning towards the 'celebratory', 'haha im glad im not the only fucker that does this crap!! (Mallinson85). This video was viewed 36,732 times. While we cannot be entirely confident that the posted comments are representative of the responses amongst all those viewing the video, it is clear that amongst the 78 comments that have been posted the intended 'cautionary' discourse is certainly not embraced by all.

There are many comparable videos depicting ketamine users undergoing similar humiliating experiences in public spaces, at music festivals, supermarkets, dance floors and in the home.¹¹ And yet, again, the 'cautionary' or 'disciplinary' message is by no means always received by those posting comments. Space prevents a fuller analysis of the comment strings in this article.

(c) Consumer DIY discourses and legal high ads

Consumer/DIY discourses were strongly associated with the search terms 'cannabis' (26%), 'pot drug' (22%) and 'AMT legal high' (52%). Perhaps not surprisingly, the two search terms referring to legal highs, 'party pills' and 'AMT legal high' also generated high numbers of actual advertisements for legal high substances (44% and 14%, respectively), loaded by commercial suppliers. In the US where 'medical marijuana' is legally available in certain states such as California and Arizona, consumer discourses flourish, underlined by the example of the Cannabis Review TV YouTube channel which offers regular 'reviews' of particular strains of marijuana available in the grey 'dispensary' market, the 'Tokin Daily' channel and the 'High Times' channel which organizes the annual Cannabis Cup competition for the best cultivated 'medical marijuana'. While there is a UK YouTube counterpart, Cannabis Cure TV, much of the consumer discourse in relation to cannabis is driven by the US. These videos frame cannabis as 'just another on-line product' to be assessed like any other, with particular strains being rated, and helpful tips being provided to shoppers as to what to look for when choosing both the product and supplier. Here is 'a hobby' in which enthusiastic consumers of the product may also be keen cultivators and there is a fascination with lights, seeds, pumps and the technologies of home cultivation. So both the technologies of consumption (bongs, pipes, etc.) and the technologies of production are product tested and the results circulated to other consumers.¹² The cannabis cultivator can film and display his or her handy work and receive critical feedback from within the community:

That's a great plant my friend but you should lower your light. The reason it got so tall is because it was stretching to get more light. You should start your light at about 20 inches above your harvest then lower down to about 16 inches when they get the proper height you want to keep them at. (comment posted by Yourhippiefriend to 'My First Grow')¹³

Similar discussions circulate in relation to legal highs, such as 'AMT', 'salvia', 'benzo fury', 'ivory wave' and 'party pills'. The 'Legal High Guy', a selfappointed champion of legal high consumer rights, has loaded hundreds of consumer reviews but there are many other legal high users offering their own advice on purchases and suppliers.¹⁴ Prices, strengths, effects and suppliers are all evaluated and guidance provided on whether particular products will show up in US probation drug tests. Ward (2010, p. 16) notes an affinity between Thatcherism and the values of enterprise and consumerism underpinning the networks of drug dealers and consumers in her ethnographic study of the London 1990s club scene and similar market discourses appear even more pronounced in these 'grey' and 'white' on-line drug markets positioning drug users as consumers or entrepreneurs. And these are popular videos: as Table I shows the average number of viewings for videos captured by the 'AMT legal high' search term is over three-quarters of a million.

(d) Reflective discourses

'Reflective' videos involved more 'thoughtful' discussions of drug experiences without the emphasis upon 'fun', 'laughter' and 'shared experience' to be found in 'celebratory' videos'. 'Cannabis', 'salvia' 'AMT legal high' and 'LSD' were the search terms generating the most 'reflective' which typically involved one person talking to camera about drug styles and experiences. In some of these there is an apparent blurring of the distinction between the public and private. For example, young people sit in their bedrooms, with parents or guardians presumably downstairs, and confide their drug experiences to YouTube. In 'MDMA Ecstasy Trip 1', a young teenager actually puts his finger to his lips and whispers conspiratorially to camera before commencing a 'reflective' account of an MDMA trip as he experiences it in his bedroom but at one minute thirty one seconds he turns to make sure his bedroom door is locked, clearly intent on maintaining a physical boundary, whilst divulging his private drug use to the public world of YouTube. This video has been viewed over 75,000 and generated nearly 300 comments.¹⁵

(e) Drugs education and satire

Videos originally produced by official agencies or government departments represented 12% of the sample though there were wide fluctuations between search terms with 'ecstasy', 'crystal meths', and 'solvent abuse' returning the highest number of official videos. The very low returns for legal highs, namely 'salvia', 'party pills' and 'AMT legal high', suggest that official drugs agencies have not yet specifically addressed the issue of legal highs, at least in terms of the YouTube environment. The challenge that drugs education agencies face in embracing YouTube is that new Web 2.0 technologies dissolve the control over both content and the direction of communication that traditional forms of mediated drugs education once offered them. Table II shows that 91 of the 750 videos captured in the sample were official drugs education videos. But the agencies producing these videos can exercise little control over where or how they appear on YouTube (though since Google purchased YouTube they can purchase 'sponsored links' which appear at the top of YouTube searches) and there is a randomness in the chains of meaning that YouTube creates through its search returns that defies communicative control. Official drugs agency videos may jostle side by side with drug videos offering very different, contrary understandings of substance misuse including 'celebratory', 'reflective', 'consumer DIY' the

discourses and actual advertisements for intoxicative technologies (pipes, growing kits, etc.) identified in this research.

On YouTube official drugs agencies may relinquish control over the actual content of drugs education videos and this is where 'satirical' discourses may intersect with official drugs education. Drugs and drugs education have long been a source of humour within popular culture but new digital technologies greatly enhance possibilities for creating and disseminating satirical material. For example, 're-mediated' drugs education films from earlier decades are now hugely enjoyed by for their comedic value on YouTube. But contemporary official material is just as vulnerable to 'remediation' including the Talk to Frank materials. In 'Skunk: destroying the myth' (loaded by The Resurrection09 in March 2009) the official Frank campaign logo is 'photo shopped' into a video which 'mashes' (or mixes together) clips from Talk to Frank, clips from interviews with Jacqui Smith, the Home Secretary responsible for re-classifying cannabis as a Class B drug in the UK, a 'drugs expert' also speaking on television and Sacha Baron Cohen's Ali G character, to challenge the assumption that skunk is more dangerous than older varieties of the drug. Or in 'Cannabis Ad UK', loader Jackmfunion, employed a less sophisticated approach by simply filming a *Talk to* Frank poster located on a bus shelter in the street and encoding a dissenting interpretative frame with an audio comment, 'hmmm' and a critical posted comment. This generated 23 further comments from other YouTube users, critically comparing their own experiences of cannabis with the poster's linkage of cannabis use and vomiting, or providing advice on ways to avoid nausea whilst smoking the drug.¹⁶

DISCUSSION

Popular culture is always made up of a complexity of divergent and contradictory discourses and this is as true of popular drug cultures as any others. While the particular articulations of these currents are always historically and culturally specific, it is possible to identify the 'cautionary', the 'disciplinary', the 'reflective' and the 'satirical' in cultures of intoxication from the 'gin epidemics' of the eighteenth century, to opiate consumption in the nineteenth century, and more recent decades of recreational drug use (Berridge, 1999; Manning, 2007; Warner, 2002). YouTube does not necessarily create new popular culture but it certainly accelerates the speed at which these popular discourses may circulate and in doing so amplifies their complexities. The number of hedonistic videos 'celebrating' intoxication is hardly surprising but perhaps the strength of those 'cautionary' counter currents is. The desire to 'discipline' or regulate the intoxication of others by framing the behaviour of particular individuals in 'cautionary' videos resonates with a broader mediated fascination with 'techniques of humiliation'

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(Skeggs, 2009, p. 638) which play out in reality television and function to construct particular moral economies regulating individual behaviour (Turner, 2010).

However, in the comments attached to both 'cautionary' and the 'celebratory' videos it was often possible to find thoughtful and sensible advice that might be of value in 'harm reduction'. For example, in '~typical 5-MeO-DMT experience ~' (loaded by vicariously13 on 11th March 2012) 'a typical walkthrough of an experience with the drug' is provided with a detailed account of the what the effects of taking DMT are likely to feel like and some sensible harm reduction steps that should be taken in preparation. Similarly, in 'All about Salvia Divinorum (Not a boring classroom vid)' (loaded by BitchWABishiin February 2009) helpful guidance on relating salvia strengths to personality and disposition is given. The NeuroSoup Channel which is run by a US postgraduate student with an enthusiastic interest in drug consumption provides thoughtful reports on a bewildering range of substances that she has personally tested.¹⁷ But there is great variation in the quality of the advice that is offered by this 'vernacular drugs education'; it is the digital equivalent of the popular 'knowledge' about drugs that has always circulated through social networks of friends and acquaintances. And there is great variation in its tone, too. While the examples listed above are accessible and supportive, if not necessarily accurate, there are others which are more problematic and the comments attached can sometimes be oppressive in their racist or misogynistic language.

The contours of popular drug culture are also reflected in the substance taste hierarchies (Measham & Moore, 2009; Ward, 2010) that YouTube drug videos reproduce. The absence of many 'celebratory' videos in the 'heroin', 'crack cocaine' and 'crystal meths' search lists reflect wider, traditional popular understanding of these kinds of substances and may partly relate to the way news media reproduce particular symbolic frameworks about substances and the identities of those who consume them (Giulianotti, 1997; Humphries, 1999; Manning, 2006; Reeves & Campbell, 1994). The face montages produced in Crystal Meths videos are a particularly striking example of the reproduction of such symbolic frameworks, crystal meth users being represented as the embodiment of social pathologies and located in the very specific contexts of urban poverty and community breakdown.

The 'consumer DIY' discourses also reflect currents running through a wider popular culture, a culture that has not remained impervious to the influence of market oriented consumerism (Ward, 2010) and which chimes with powerful libertarian currents in the US. In this context YouTube helps to sustain a virtual zone for the trading of drugs which parallels the physical 'grey zones' to be found within the night time economy of clubs and dance venues where the dealing of illicit 'recreational drugs' is often tolerated. Patterns of consumption, including drug consumption, are intimately bound up with identity (Collinson, 1996); commodities including drugs, generate cultural meanings, and in adopting particular 'drug styles' and expressing these through YouTube social actors are representing versions of their selves and responding to the representations of others.

So it is clear that when official drugs education resources are loaded to YouTube they have to compete with a wide variety of competing 'drug discourses'. Thus, in the content searches undertaken for this project official *Talk to Frank* drugs education videos produced by the UK government frequently appeared alongside vernacular videos celebrating drug-induced intoxication or videos promoting marijuana cultivation technologies. Some user generated 'drug videos' will complement official perspectives, albeit in an uneven vernacular pattern, but many will undercut, resist or parody them. These are the 'drug discourses' that make up a popular drugs culture which offers an alternative, if sometimes, complementary drugs knowledge.

CONCLUSIONS

What are the implications for official drugs education strategies? We know that mass-mediated drugs education based upon 'fear arousal' was largely ineffective and occasionally actually counter productive (Aldridge, 2008; Blackman, 2004, p. 151; Burke & Thompson, 2002; Coggan, 2006; Cohen, 1996; Plant, 1987; Power, 1989) but governments have been loath to entirely abandon this approach even when, in the case of the UK government, its own Advisory Council on the Misuse of Drugs warned that it was not working (Coggans & Watson, 1995, p. 219). The Talk to Frank campaign is the UK government's first attempt to fully integrate old and new media in mediated drugs education that abandons the older approaches in favour of harm reduction objectives but the arrival of new media, particularly Web 2.0 technologies, introduces a far greater degree of complexity to the processes through which drug images and drugs education are mediated and weakens the communicative control that drugs agencies formerly exercised, at least over the construction and dissemination of mediated content.

In the age of new media, it can no longer be assumed that communication is linear or uni-directional. Rather, communication is potentially multidirectional and complex which threatens traditional strategies of mediated drugs education in three ways. Firstly, there is randomness in the chains of meaning that YouTube creates through its search returns that defies communicative control. Official drugs agency videos may jostle side by side with drug videos offering very different, contrary understandings of substance misuse including the 'celebratory', 'reflective', 'consumer DIY' discourses and actual advertisements for intoxicative technologies identified in this research. Secondly, control over the direction of communication dissolves because YouTube communication is multi-directional. Videos may be posted, received, but then 're-mediated' or reloaded (Grusin, 2009). This, of course, is the idea of 'virality' which advertising agencies are keen to exploit and yet the price of using a viral communication strategy is that one can no longer predict with any degree of certainty who receives the message or in what context. Thirdly, YouTube content stimulates further comment and official drugs agencies appear to sometimes find this feature problematic. When US Office of National Drugs Control Policy posted its videos to YouTube in 2006 it very quickly disabled the comment function on all of them (Hess, 2009). The Talk to Frank campaign has taken the same steps in the UK. In both cases the drugs agencies are baulking at the prospect of really

using YouTube to its full, new media Web 2.0 potential. In the age of Web 2.0 attempts to exert control through the use of such 'old media' control strategies are unlikely to be very effective and, as demonstrated in this article, several of the *Talk to Frank* videos have been extracted by YouTube users and re-loaded with the comment function enabled and plentiful and diverse comments provoked.

The challenge for drugs agencies seeking to use YouTube effectively as a communicative tool is to embrace this degree of cultural complexity, to acknowledge that YouTube is a 'dynamic cultural system' and work with it. This might involve anticipating in the construction of mediated drugs education texts their potential for both re-mediation and contestation in ways that the older, traditional 'fear arousal' and abstinence strategies never could because the latter rested upon absolute claims to medical or psychological truth. And it could also involve regarding the comment function on YouTube videos as a potential opportunity for dialogue rather than a trap to be firmly shut.

Declaration of interest: The author reports no conflicts of interest. The author alone is responsible for the content and writing of this article.

NOTES

- The manual cleaning strategy involved physically checking the first 100 videos returned in every category, noting the numbers that were not actually relevant to the search (e.g. GHB videos about 'get home bags' not the drug) and using this figure to estimate the total of non-relevant videos for the search category as whole.
- The software can be downloaded for free from http://lexiurl.wlv. ac.uk/, accessed 12th March 2012.
- 3. All coding were undertaken by the author but two students were trained to use the coding schedule and apply it to 60 videos producing an acceptable level of agreement (pi = 0.798). The coding schedule and details of the results produced by the searches using the list of original search terms are available on the author's

page at academia.edu and the University of Winchester School of Media and Film pages.

- 4. Burgess and Green (2009, p. 25) use the phrase 'vernacular creativity' to refer to the 'wide range of everyday creative practices' outside 'the cultural value systems of either high culture or commercial creative practice'. In this article, 'vernacular drugs education' refers to everyday knowledge and cultural practices associated with drug use circulated by ordinary people, as opposed to professional drugs workers, criminal justice officers or medical staff.
- 5. 'Loaders' are those loading videos to YouTube. Loaders usually also post a comment offering a particular interpretation of the video. Loader comments are distinguished from subsequent 'comment strings' which are generated as other YouTube users post their own comments or interpretations in response.
- See, for example, http://www.youtube.com/watch?v=XFo-TNCQ-Sk, http://www.youtube.com/watch?v=bmcJt3YFg-8, http://www. youtube.com/watch?v=LuM2oREjE6Y, http://www.youtube.com/ watch?v=849p21CiyL0, all accessed 18th March 2012.
- See, http://www.youtube.com/watch?v=3nPuGBH-Gzw&feature= g-rec&context=G2e86af9RVAAAAAAAAA, http://www.youtube.com/watch?v=Iyrvn4yJ-LM, http://www.youtube.com/watch?v= v=7yzFk2vC_I http://www.youtube.com/watch?v=TltYJfL6W7 Y&feature=g-vrec&context=G279289fRVAAAAAAAAA, all accessed 18th March 2012.
- http://www.youtube.com/watch?v=3WZig2DYx58&feature=fvwrel, http://www.youtube.com/watch?v=OGQxhaPhFDs&feature=related, http://www.youtube.com/watch?v=Ijd0TXrEt48, accessed 18th March 2012.
- 9. http://www.youtube.com/watch?v=zXQCZOuR3AA, accessed 18th March 2012.
- http://www.youtube.com/watch?v=daiw1J90hJA , accessed 18th March 2012.
- For example, http://www.youtube.com/watch?v=2LzpGmK9cuQ, http://www.youtube.com/watch?v=hpjebjPJQUc&feature=fvwre, http://www.youtube.com/watch?v=xBUsSomuUP0, http://www. youtube.com/watch?v=tpCIxxCmW3s, accessed 18th March 2012.
- For example, http://www.youtube.com/watch?v=35HeMozD_ XQ&feature=related, http://www.youtube.com/watch?v=fhMVUv UK010&feature=related, http://www.youtube.com/watch?v= Z5aCOnb2x6Q&feature=related, accessed 18th March 2012.
- http://www.youtube.com/watch?v=35HeMozD_XQ&feature=related accessed 18th March 2012.
- 14. See, for example, http://www.youtube.com/watch?v=iudyc PbMKKc, http://www.youtube.com/watch?v=mOXrycJXHGY& feature=related, http://www.youtube.com/watch?v=riJr6w PD32A&feature=related, http://www.youtube.com/watch?v= h4JrcmsF_Eg accessed 18th March 2012
- http://www.youtube.com/watch?v=AGx3FAAmkQ0, see also, http://www.youtube.com/watch?v=KYrwTArPAd0, http://www. youtube.com/watch?v=lqizX66nV-Q&feature=related&noredirect= 1, http://www.youtube.com/watch?v=zrUT1VIDvVY&feature= relmfu, all accessed 18th March 2012.
- See http://www.youtube.com/watch?v=o2CixTHFq34, http:// www.youtube.com/watch?v=_hdFQ6mnM4A, accessed 18th March 2012.
- See, http://www.youtube.com/watch?v=HnzEqUJwQLo&feature= related, http://www.youtube.com/watch?v=H4JrcmsF_Eg, accessed 18th March 2012.http://www.youtube.com/watch?v= A5fqUm2Q2To and the Neurosoup Channel at http://www.youtube.com/user/NeuroSoup?ob=0&feature=results_main, accessed 18th March 2012.

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