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CHAPTER 12
Social media and drug markets
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Introduction

This chapter provides an overview of social media platforms and how they can affect drug markets. Drawing on the literature to explore the drug-related content existing on various social media channels, the chapter discusses how social media have both a direct impact on drug supply and an indirect impact on demand for drugs. The chapter goes on to provide a summary of responses and discusses the need for future research to develop our understanding of social media and how they affect drug supply and demand.

Social media

Social media, according to Mandiberg (2012), are new technological frameworks that enable ‘formerly passive media consumers to make and disseminate their own media’. They reflect the evolution of Web 2.0 technologies, which allow users to continuously create, modify and/or publish content and applications ‘in a participatory and collaborative fashion’ (Kaplan and Haenlein, 2010, p. 61). Social media sites predominantly exist on the surface web and are, therefore, visible to all internet users, although they require varying levels of user registration for participation. Nevertheless, user-modified content also exists on the deep web, for example in forum discussions such as Silk Road’s ‘Ask a Drug Expert Physician about Drugs and Health’ (see Chapter 7), while some social media sites established on the surface web, including the social networking giant Facebook, have recently allowed users anonymous access on the deep web through the Tor Browser.

The term ‘social media’ encompasses numerous types of social interaction sites and apps, including social networking sites, photo- and video-sharing sites, blogs and micro-blogs, discussion and forum sites, review and ratings sites, and social streams. Figure 12.1 provides a visual overview of the different types of social media through what Solis (2015) calls the ‘conversation prism’. Although sites differ in communication mode, they all feature significant user interactivity and participation, as well as multidirectional lines of communication, and represent a transformation in the way in which we use the internet.

FIGURE 12.1
The different types of social media

The recent exponential growth of the internet, and in particular of social media, and the impact it has had on contemporary society is vast. According to Nielsen (2012), a US- and Netherlands-based global information and measurement company, internet users spend more time engaging with social media sites and applications than on any other type of site. Facebook, which became publicly accessible at the end of 2006, currently has more than 1.6 billion registered users worldwide, 1.35 billion of whom have been active in the previous 30 days; YouTube, the video-sharing site, has more than 1 billion active users; and Twitter, the social streaming site, has more than 500 million registered users.
addition to providing opportunities for increased communication and knowledge sharing among individuals, social media have substantially changed the way that businesses, organisations, communities and individuals interact.

As the world of social media develops at a rapid pace, many new technologies go ‘viral’ before their potential impact can be determined. Although there are undoubtedly benefits to the increased opportunities for social interaction, there are also well-documented concerns around the negative impact of social media, particularly in relation to bullying and sexual exploitation. There are also reports of social media being used to orchestrate the activities of subversive and extremist groups (Schils and Pauwels, 2013), organised crime syndicates (Kingston, 2014) and terrorist organisations (Zeng et al., 2010).

Although some social media users concerned about their privacy may protect their identity, many others do not take precautions and may have poor security levels. Similarly, some users may refrain from posting content that may be unlawful or that they know to be unlawful on social media platforms, while others may succumb to what has been called an ‘illusion of anonymity’ and openly post content that transgresses legal and/or moral thresholds (Zheleva and Getoor, 2009).

### Social media and drug markets

In general, social media can affect drug markets in two ways. First, social media may have an impact on the supply of drugs by providing opportunities for buying and selling drugs (direct impact). Second, they may have an impact on the market by affecting the demand for drugs in general and for individual drugs through, for example, the impact of drug-related experience sharing, drug-themed photo and video sharing, and drug-focused opinion forming (indirect impact).

There are, however, few research studies exploring social media and drug markets. Where research on social media does address drugs, it tends to be in the fields of behavioural health, epidemiology and public health, rather than criminology. Research, therefore, tends to focus on the influence of drug-related social media content on young people’s demand for drugs rather than on the supply of drugs through social media channels. Although concerns exist about the impact of greater exposure to drug-related content on demand for drugs, particularly among young people, the evidence of its impact remains scarce, although some studies have shown that traditional media coverage of drugs can increase interest in buying drugs (Forsyth, 2012). Nevertheless, there remains insufficient evidence to provide us with a good understanding of the impact of social media on the demand for drugs.

In order to better understand the role of social media in drug markets, systematic analyses of numerous social media platforms are needed, incorporating a wide range of different perspectives. Currently, research studies looking at a specific social media application are more common in peer-reviewed journals (as well as in ‘grey’ literature). These often focus only on the existence of drug-related content rather than its impact, generally on the premise that this content increases the demand for drugs. Examples of the different types of drug-related content on social media and of current knowledge and research are given below.

#### Supply of drugs

Social media can facilitate the supply of drugs in a number of ways. One way is that users can directly advertise drugs for sale. In 2014, drugabuse.com published an infographic documenting drug dealer activity on the picture- and video-sharing service Instagram (drugabuse.com, 2014). By searching for hashtags relating to drug sales, the researchers were able to identify 50 drug dealer accounts in a day. Many contained photographs of drugs for sale. Social media were used to advertise the drugs for sale, but the transactions took place through other communication channels, such as mobile phones or messaging apps, which often allow users to remain anonymous. However, the researchers found that more than one-third of the drug dealers identified displayed a photograph of their face. There have also been numerous media reports of dealers caught by law enforcement agencies after posting details of their drug dealing activities through personal social media accounts, for example through Facebook accounts. Some researchers have begun to use web analytics to discover the presence of drugs for sale on social media.

Social media can also provide potential buyers with information on how and where they can purchase drugs, as well as evidence of successful purchases in the form of positive feedback. In his article ‘Teens on Tumblr can’t stop bragging about Silk Road drug deals’, journalist Patrick Howell O’Neill analysed the microblogging site Tumblr for material posted by teenagers who were interested in how to buy drugs on the dark web site Silk Road (O’Neill, 2013). The posts included details and
Concerns around online social networks mirror those related to offline social networks; principally, that exposure to certain behaviours within a social network will affect an individual’s behaviour and social norms. However, what is unclear is the added impact that easier access to groups of like-minded individuals through online communities has on individual behavioural norms. This may be of particular importance for traditionally hidden activities such as drug use and supply, with individuals able to seek out online groups easily and anonymously.

Specific drug forums

There are a large number of user forums dedicated to the discussion of illicit drugs, such as Bluelight.ru, Erowid and Drugs-forum.com. Most research has explored the harm reduction aspects of these forums, with the majority of users claiming that they access the sites primarily to learn how to use drugs more safely (Chiauzzi et al., 2013). Research often highlights the opportunity to use forums for targeted prevention (Soussan and Kjellgren, 2014). Nevertheless, there are concerns that the forums’ content could encourage experimentation with a wider range of drugs and increase demand for certain substances. For example, information about how to extract active ingredients from pharmaceuticals may increase demand for such substances. Conversely, bad trip reports on forums and warnings about individual substances and methods of drug use may decrease demand for particular substances and influence types of use. Although there is limited evidence of the impact of forums on drug use behaviours, the ability to monitor discussions can be a useful tool for the identification of emerging trends in drug use and markets and to inform policy and practice (Davey et al., 2012).

Drug-related content on social networking sites

There are concerns that the presence of drug-related content on social networking sites could influence normative behaviours regarding drug use and increase demand for drugs, particularly among young people. Cavazos-Rehg et al. (2014) analysed the demographics of the almost 1 million followers of a pro-marijuana Twitter handle (‘handle’ being Twitter jargon for a user’s screen name) and the content of the tweets posted using that handle. They found that the majority of the followers were 19 years old or under (73 %) and that 54 % of them were female. The content mainly concerned positive cannabis discourse; many of the tweets were perceived as humorous. The authors warned of the influence of social media during adolescence and the potential impact on drug using behaviours. Another study by Hanson et al. (2013a) performed a qualitative analysis of the quantity and content of tweets containing the drug name ‘Adderall’. The study reported 213 633 Adderall-related tweets over a six-month period, with a peak coinciding during the examinations period. Tweets were also analysed for content related to motives, side effects, poly-use and possible normative influence. The authors concluded that Adderall discussions through social media such as Twitter may contribute to normative behaviour regarding its abuse. A similar conclusion was drawn by Hanson et al. (2013b) in relation to social circles and prescription drug abuse.

Video and picture sharing

YouTube is the most popular video-sharing site, while the picture-sharing sites Flickr and Instagram are also very popular at the time of writing. In addition, many other social media channels not specifically viewed as focused on picture or video sharing provide users with opportunities to share these types of media. Lau et al. (2012) highlight the potential negative impact of social media content depicting behaviours such as drug use, although the authors suggest that further research is needed on how this online content is disseminated and how individuals process it.
Much research focuses on the content of social media. For example, Manning (2013) examined the link between YouTube, drug videos and drug education. The study involved a content analysis of 750 drug videos (sampled from over 300,000 individual YouTube videos), of which 12% had been posted by official agencies (see Figure 12.2). The study found that a minority (16%) of the drug-related videos on YouTube were celebratory (i.e., hedonistic), but that these differed by drug — for example, no celebratory videos about heroin or crystal meth were found. Many cautionary videos (also known as ‘vernacular prevention’ videos) were also identified. ‘Do-it-yourself’ (DIY) videos (e.g., videos that provided instructions on how to grow your own cannabis) and legal high advertisements were also identified. The study concluded that official prevention campaigns should use more modern methods to reach individuals.

A similar study (Lange et al., 2010) also identified a large number of drug use-related videos on YouTube. It found that the researchers were able to analyse the effects and side effects of Salvia divinorum solely by viewing YouTube user-uploaded videos. Walsh (2011) argued that the existence of Salvia videos on YouTube increased public awareness of the substance and stimulated demand, but also put it on the agenda of law-makers in the United Kingdom, thus contributing to its prohibition and attempts to restrict the market.

**FIGURE 12.2**
The sample of YouTube drug videos coded by drug discourses

<table>
<thead>
<tr>
<th>Discourse</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Docs</td>
<td>15%</td>
</tr>
<tr>
<td>Celebratory</td>
<td>10%</td>
</tr>
<tr>
<td>News</td>
<td>8%</td>
</tr>
<tr>
<td>Cautionary</td>
<td>10%</td>
</tr>
<tr>
<td>Consumer DIY</td>
<td>8%</td>
</tr>
<tr>
<td>Traditional drugs education</td>
<td>5%</td>
</tr>
<tr>
<td>Reflective</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>New drugs education</td>
<td>2%</td>
</tr>
<tr>
<td>Legal high ads</td>
<td>2%</td>
</tr>
<tr>
<td>Satirical</td>
<td>2%</td>
</tr>
</tbody>
</table>

In the United States, where the sale of cannabis in licensed outlets has recently become legal in some states, news reports have highlighted the existence of apps related to the cannabis trade. For example, one report likened the Leafly App (launched on 26 January 2015) to a ‘Grindr for weed’ in that the app ‘offers an interactive catalogue of different varieties of cannabis, their characteristics and availability (mostly in medical cannabis outlets) based on the nearest GPS location’ (Neal, 2014). Another journalist reported on Weedhire — an app that was designed to ‘connect pot labs, dispensaries and even government regulators’ to potential employees in the (legal) cannabis industry (O’Neill, 2013).

**Drug-themed apps**

There are a large number of drug-themed apps available from app stores such as Google Play and Apple’s App Store. These include apps designed to prevent drug use such as Your Face on Meth, which allows users to upload a picture and see the physical degradation that would result over time from using methamphetamine. Other apps promote drug use. Research by Bindham et al. (2014) focused on apps promoting illicit drug use, with the author observing an increase in these types of apps over a three-month period. By the end of the study (in 2012), 410 drug-promoting apps were identified, the majority of which (98%) were found to promote cannabis, with many providing a forum for like-minded drug-users. Some examples of the types of apps that were found included drug-themed ‘wallpaper’ apps; apps that provided information on drug use; drug-themed gaming apps; drug use simulations; drug-themed clock widgets; a drug-themed battery icon widget; drug-related stickers; and apps that were used to share substance use stories. Others, such as the How to Sell Weed app, provide instructions for the production and selling of cannabis. The authors of the study voiced public health concerns, particularly in relation to young people, and suggested government intervention as a means ‘to enforce [the] proper standardisation of app-rating processes’.

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**Social media sites and networks facilitating drug-related encounters between men who have sex with men**

One of the most common ways to access and interact with social media is through smartphone and tablet apps. Some geosocial networking apps employ location-based mobile social computing using the Global
Positioning System to establish a user’s proximity to other users. Grindr, which claims to have 5 million users in 192 countries worldwide (1), is an example of this type of app and is used primarily by men who have sex with men (MSM). It has recently been reported to be a conduit for the facilitation of high-risk behaviours (such as drug-seeking). For example, Bourne et al. (2014) reported that some men use Grindr to locate partners for ‘chemsex’ or ‘party-and-play’ (PNP) sessions. Chemsex and PNP refer to sex among men while using various drugs, including methamphetamine, cocaine, gamma-hydroxybutyrate (GHB), gamma-butyrolactone (GBL) and mephedrone. Grindr can also facilitate ‘slamming parties’ — prolonged MSM sex parties that involve the injection of illicit drugs (Frederick, 2015).

In addition to Grindr, there also exist numerous MSM virtual social networks (VSNs) that feature a high number of self-identified drug users.

This sort of social networking is best described as taking place on VSNs, rather than online social networks, as much communication takes place via smart phones and tablets. VSNs can be categorised into static networks, which are more permanent and may include user profiles and terms of use (e.g. Facebook), and dynamic networks (e.g. Skype or ooVoo video chat), which are temporary and often by invitation only. A feature of VSNs is the creative use of slang and argot to get around moderation. Static (and especially) dynamic VSNs that use webcams have been recently associated with ‘chemsex’ parties and/or ‘slamming’ among MSM.

A few examples of MSM VSNs include PlanetRomeo.com (a German-based VSN), which has at least 11 member-created drug-themed ‘clubs’; NastyKinkPigs.com (a US-based VSN with members throughout the United States, the United Kingdom and Europe), which allows individuals to specify drug use preferences in their member ‘profiles’; and Get2ThePoint (ynot mingle.com), which describes itself as ‘an online clubhouse for Slamming enthusiasts’ (ynot mingle.com, 2015). ‘2ThePoint’ refers to the injection of methamphetamine and/or mephedrone, in particular, as well as other drugs. Unlike Get2ThePoint, PlanetRomeo and NastyKinkPigs also have smartphone apps that employ location-based technology.

Another recent trend among MSM drug users is the online sharing of sexualised drug ingestion experiences via real-time webcam broadcasts — either on MSM VSNs with webcam chat rooms, in group conference calls (Skype or Zoom) or privately (Skype). MSM seeking webcam drug experiences can often locate other Skype members and/or active Zoom conference calls through services such as Google+ Communities.

Some MSM share their drug ingestion experiences by uploading video content to video-sharing websites. Gay pornography producer Treasure Island Media maintains one such site, ToxxxicTube, which features hundreds of user-uploaded videos of men apparently smoking or injecting illicit drugs such as crystal methamphetamine.

As well as sharing drug use experiences, there are suggestions that sites may also facilitate drug supply. A recent online article by Vice found that ‘One of the most common profile names or sub-headings on Grindr has become “GMTV” which implies that the person is using, has to share, or has to sell, G (GBL), M (mephedrone), T (Tina AKA crystal meth) or V (Viagra). By using colloquial slang for drugs, and using search fields on certain sites, you can hunt for the drug you’re after, or people who are using it who might be willing to hook you up electronically with someone who’ll get some for you’ (Daly, 2015).

Using web analytical methods to monitor drug use and markets

Recently, researchers have analysed social media data using data mining techniques to explore the different ways in which large numbers of social media data might be processed and how social media analysis can provide an additional source of data on drug use and markets. Yakushev and Mityagin (2014) found that, through data mining, the level of interest in drugs among the users of these media could be determined. In addition, the authors were able to obtain information on the interests of individuals who had posted drug-related content. They suggest that social media can provide a better picture of those with ‘light’ addiction problems than traditional sources of data on drug use.

Web analytics have also been used by criminal justice researchers to explore social media and drug supply. One of these studies (Watters and Phair, 2012) developed a new methodology known as Automated Social Media Intelligence Analysis to analyse social media platforms for the presence of drug buying and selling. The search found many examples of sellers advertising drugs and buyers requesting drugs on social media. They also found that no examples of illicit drug advertising were found among paid advertisements.
The internet and drug markets

Social media policies, supply and demand reduction responses

Owing to the large volume of drug-related social media user content, the numerous and varied types of environments in which such content is posted and a lack of understanding about the impact of different types of social media content, a comprehensive response to drug-related social media content is not anticipated any time soon. Although law enforcement agencies continue to develop their practices to respond to evolving online methods of drug supply, other stakeholders will be important in tackling the negative impact of drug-related social media content. For example, the policies and practices of social media owners are under scrutiny, particularly with respect to the monitoring of member-user activities. The research world also has a role to play in creating a better understanding of the impact of different types of social media content on behaviour and in developing methods of online social media monitoring. In addition, researchers can use the opportunities provided by increased online social contact to recruit hitherto hidden research subjects. Similarly, professionals in the prevention, harm reduction and treatment fields need to develop their services to align them better with today’s digital modes of communication.

Tackling the buying and selling of drugs: law enforcement responses

According to numerous sources (e.g. grey literature, news media reports, peer-reviewed journal articles), the drug-related monitoring of social media by police and other law enforcement entities does occur. However, because of the sheer volume of data involved, the automatic (or semi-automatic) screening of drug-related social media content by law enforcement can often be very tedious, making such operations difficult or even impracticable (Watters and Phair, 2012). Moreover, the results of such screenings often include false positives. Where law enforcement monitoring does lead to arrests, media reports suggest that they often involve young people found with small amounts of illicit drugs and who have little to no prior history of criminal behaviour, or small-scale dealers who lack sophistication in their operations (Knibbs, 2013; Storm, 2013; Chicoer, 2014; Taylor, 2014).

An additional complication for law enforcement agencies monitoring social media is that member-users often employ special language when communicating about drugs or drug-related activities and behaviours, as described in the section on sites and apps for MSM. This argot, or drug-related slang words, develops over time, making it exceedingly difficult for those monitoring to keep up with the changing use of language. This is because the purpose of drug-related argot is to ‘maintain secrecy so as to hide subculture communications from outsiders’ (Johnson et al., 2006), especially law enforcement agents.

Some law enforcement actions are successful, though. Some social media-related drug arrests concern the illegal sale of prescription drugs (rather than the dealing of illicit drugs). Others are made in conjunction with larger ‘sting’ operations. For example, an August 2013 Instagram-related ‘gun bust’ sting operation in New York City led to hundreds of arrests (the largest in NYC history) and in April 2014 a large US-wide sting operation (conducted by the US DEA and the FBI) led to the arrest of more than 350 drug dealers, all of whom had posted drug-related content on Instagram.

Social media policies and practices

The British Broadcasting Corporation (BBC) recently reported that most social media owners do not actively monitor and/or remove drug-related content (BBC Trending, 2013a). Some social media owners responded to these accusations, citing reasons of impracticality or invasiveness. Legal reasons were also cited. Others claimed to take a ‘reactive’ approach to the presence of drug-related content on member-user pages. Typically, social media owners give their member-users the opportunity to report inappropriate or illegal content, and some owners stress their commitment to reviewing such reports within a short period of time, usually 48 hours.

In a follow-up to its original investigative report, the BBC noted that Instagram had responded by blocking numerous drug-related hashtags on its site (BBC Trending, 2013b). Still, many lay and professional members of the public have demanded that Instagram and other social media owner-operators take a more proactive approach to removing drug-related and other content of an illegal nature.

Further research and monitoring

Research exploring the link between new forms of media, in particular social media, and drug supply and
需求仍然处于起步阶段。特别是在药物供应通过社交媒体渠道的情况方面，探索得还不够。改进对在线社交媒体内容的监测方法，可能通过Web分析，以及对药物使用者本身的研究需求，将有助于理解在线供应在毒品市场中的作用。研究需要超越仅仅识别与毒品相关的社交媒体内容，转而评估其对毒品使用行为的影响。

### Conclusion

社交媒体的兴起已经彻底改变了沟通方式，并影响了我们彼此的互动方式。在直接对毒品市场的影响方面，仍缺乏足够的证据表明其在毒品供应中的作用。更严格的社交媒体控制所有者，并更加明确其对确保服务不被用于促进犯罪活动的责任，可能有助于限制通过这些渠道的毒品供应。

对于毒品市场来说，间接影响毒品需求方面的研究需要更好的探索。这不仅将增加我们对社交媒体如何影响行为的理解，也将有助于明确目标区域的负面影响，并帮助设计更合适的应对措施。同时，需要有一个平衡的方法来应对这个问题，既要识别和应对负面影响，也要识别和利用社交媒体的价值，帮助研究和监测社区以及预防和治疗机构来更好地理解毒品使用情况，并改进需求降低的应对措施。

### Demand reduction responses

卫生服务一直缓慢地适应不断变化的沟通模式，并开发新的方法以达到目标群体（EU Task Force on eHealth, 2012）。Manning (2013) 发现了一些官方毒品预防视频在YouTube上，但与其他毒品视频不同，这些视频不允许用户评论。社交媒体邀请用户参与对话，服务需要向参与式方法转变，从单向信息传递转变为更具有参与性的方法（Neiger et al., 2013）。在缺乏充足提供服务的情况下，其他行动者将填补这个空白。因此，论坛可能成为提供伤害减少建议的首选场所，尽管人们对所提供的信息质量表示担忧。分析论坛发现，对伤害减少和治疗建议的需求，特别是在可能不感到舒适而寻求治疗服务的用户中，如社会融合的休闲药物使用者。社交媒体提供了接触难以触及的客户群体的机会（Davey et al., 2012），并在不同民族群体中表现相似的使用水平。通过使用人口和其他信息（如对夜生活的兴趣）的定向信息，可能提供一种成本效益高的方式来接触目标人群，并根据其具体需求定制信息和响应。此外，社交媒体可以提供建立支持药物依赖康复的在线社区的机会。

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