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FAKE MEDS ONLINE

The Internet and the Transnational Market in Illicit Pharmaceuticals

Alexandra Hall and
Georgios A. Antonopoulos

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List of Abbreviations

B2B	Business-to-business
B2C	Business-to-consumer
C2C	Consumer-to-consumer
DTCA	Direct-to-consumer advertising
EMA	European Medicines Agency
FDA	Food and Drug Administration
ICT	Information and communications technology
IOP	International Online Pharmacy
IPR	Intellectual property rights
ISP	Internet service provider
LEA	Law enforcement agency
MHRA	Medicines and Healthcare Products Regulatory Agency
NCA	National Crime Agency
OP	Online pharmacy
OTC	Over-the-counter
PIEDs	Performance and image-enhancing drugs
POM	Prescription-only medicine
R&D	Research & development
UK	United Kingdom
WHO	World Health Organisation

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CHAPTER 1

Introduction

Abstract This chapter outlines the book's rationale and analytical approach, one that embeds an original empirical dataset in an integrated theoretical framework. It introduces the reader to a number of complex and interdependent forces, processes and spaces that are analysed as co-constitutive in the chapters that follow. The chapter also outlines the methodology in detail, including a discussion of the ethics of online research. It finishes by summarising the main definitional issues surrounding the illicit medicine trade.

Keywords medicines • counterfeit • falsified • substandard • FAKECARE project

There is a burgeoning global trade in counterfeit, falsified, unlicensed and substandard medicinal products. Recent estimates claim that the trade has grown by 90 per cent since 2005, with an approximate turnover of $200 billion, suggesting it has now overtaken marijuana and prostitution as the largest illicit market for traffickers (IRACM 2013; see also Finlay 2011). This increase has been particularly apparent in the context of various evolutionary phases in information and communications technologies (ICTs) and electronic commerce since the late twentieth century (Kovacs Burns and Morrice 2004; Jopson 2013; see also Yingqun 2013; Keeling 2014; Lavorgna 2015), and the Internet now acts as the main avenue through which this criminal market is expanding. Yet, despite growing

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public concern and media attention (Boseley 2008; Clark 2008; Jack 2016), this extensive, extremely profitable and ultimately life-threatening[1] (see Fotiou et al. 2009; JDSU 2010; Mackenzie 2012; The New York Times 2012) online market has yet to be fully unpacked empirically or theoretically by criminologists and sociologists (for exceptions see Yar 2008; Lavorgna 2015).

This book attempts to fill that gap by offering the first in-depth and empirically grounded social scientific analysis of the *online trade in illicit medicinal products.* Using the UK as a case study—one of the largest and most lucrative European markets for pharmaceuticals (Morgan 2008) and a context in which R&D in pharmaceuticals has the largest investment in Europe (EFPIA 2012)—the main aim is to analyse the cultural, technological and politico-economic forces currently shaping this historically unique criminological phenomenon. Importantly, we offer an empirical and theoretical analysis of both the *supply* and *demand* dimensions of the trade in the UK. Therefore, the book lies at the intersection of research on illicit markets, cybercrime, intellectual property crime, medical sociology and digital culture. Discussions will include analyses of the relationships between technology and pharmaceutical counterfeiting, 'organised crime' and the global political economy, Web 2.0 and late-modern health practices, and the Internet, drugs and consumer culture (see Power 2013).

In order to offer a thorough exploration of the nature and dynamics of this complex and often paradoxical illicit market, it is necessary to expand the scope of our analysis of illicit medicines, their online trade and its social organisation. Epistemologically, our research offers an examination unconstrained by disciplinary boundaries but committed to emerging trans-disciplinary and post-disciplinary paradigms (see Sayer 1999; Jessop 2004; Hall and Winlow 2015). In doing so it embeds an original empirical dataset in an integrated theoretical framework that borrows from criminology, critical political economy, consumer culture, medical sociology and digital and new media studies. Consequently, a number of complex forces, processes and spaces, routinely considered as disconnected in studies of crime and deviance for many years, can now be clearly seen as co-constitutive.

Firstly, our research aims to transcend the limitations of narrow work on illicit markets by incorporating a dialectical understanding of the material and the cultural. From the significance of production and distribution systems to everyday changes in the consumption of pharmaceuticals, interacting *politico-economic* and *cultural* processes and structures at work

in this context will be explored as the analysis is embedded in a broader critical discussion of late-capitalism, its cultural phenomena, technological idiosyncrasies and systems of trade and commerce.

Secondly, adding to the previous point, simply externalising the trade by placing this illicit market outside of legitimate political and economic structures and legal companies that have a foundational influence on its functioning also weakens analysis and preventative action. As it will become clear later, the online trade in illicit medicines is rooted in a number of *licit* trade processes and practices. Therefore, the blurred distinction between *legality* and *illegality* is another dual category of exploration (see van Duyne 2003, 2005; Nordstrom 2007; Antonopoulos and Papanicolaou 2014).

Thirdly, although the book's main aim is to unpack and analyse the *online* trade in illicit pharmaceuticals, its virtual elements cannot be divorced from the material goods being traded in the physical world. For instance, while ICTs enable further market reach in terms of their marketing and advertising functions, the trade is also systematically entrenched in such things as container-based shipping and the seaport trade. We must also emphasise the distinct corporeal nature of the products being exchanged. Ultimately this is a computer-aided crime, whereby digital technologies are in effect propagating a trade in material goods traditionally done offline (Wall 2007; Yar 2013). Therefore, the symbiotic relationships between *online* and *offline* spheres are analysed throughout.

Fourthly, although the book focuses primarily on the UK, simply analysing one national context is problematic. After all this trade functions on a global scale yet is marked in national and local 'zones', often moving spatially through stages in the supply chain. For that reason we aim to embed our analysis of the trade in its varied yet simultaneous spatial scales throughout the book, without overlooking the UK as the main focus, by highlighting both *global* and *local* sites on which the market has emerged and developed over time (Hobbs 1998; Nordstrom 2007).

The interdependency of these categories and levels of enquiry is the basis upon which the book's critical analysis progresses. As the argument unfolds, the analysis will focus on the rise of the Internet as one factor working in conjunction with the non-digital in a dynamic way, along with a variety of transnational social, cultural, political and economic processes, to enable the supply and demand of illicit medicines in the UK. Furthermore, the research, some of which stems from the European project 'www.fakecare.com' (see below), also engages with policy and practitioner communities working

at local, national and international levels. Therefore, the book acts as a social scientific analysis as well as a set of practical guidelines for law enforcement agencies (LEAs), regulatory agencies and customers at risk of consuming illicit medicines bought online.

Following this introductory chapter outlining the book's aims, structure, methodology, and the definitional issues surrounding the illicit medicine trade, Chaps. 2, 3 and 4 act as the substantive chapters based on our empirical research, each answering a number of specific research questions. Chapter 2 contextualises the expanding online trade in illicit medicines in the UK, offering an overview of the size, nature and dynamics of the trade and the facilitating role played by the Internet. Chapter 3 focuses on the demand-side and investigates the cultural and technological factors contributing to the growing consumption of illicit medicines bought online. Chapter 4 is an exploration of the supply side and explores the political economy and social organisation of the trade with regard to the physical flows of illicit medicines. The book ends with a final chapter offering concluding remarks.

The Project 'www.fakecare.com'

The initial idea for this book was realised as part of a wider project across European Union member states: 'www.fakecare.com' (hereafter, Fakecare). Coordinated by the eCrime group at the University of Trento (specifically Andrea Di Nicola and Elisa Martini) and financed by the European Commission under the programme ISEC 2011, the overarching aim of Fakecare was to develop expertise against the online trade in fake medicines by producing and disseminating knowledge, counterstrategies and tools across the EU. The project adopted an interdisciplinary approach, drawing on research and expertise from a range of fields, including criminology, sociology, law, political science, information science, health and medicine. Furthermore, a number of innovative research methods were employed, including virtual ethnographies, the creation of honey-pot websites, web surveys, legal framework comparisons, script analyses of investigative and judicial case files, and web content analyses (Di Nicola et al. 2016).

The wider study is currently impacting on law enforcement and health regulatory policy and practice across Europe. Specifically, an ICT tool—FAST—which has been developed and is fed by findings from the wider

study, is being used by LEAs in a number of EU countries. This tool uses an algorithm to identify illegal online pharmacies (OPs). Moreover, guidelines have been produced for both LEAs (Hall et al. 2015) and customers at risk of buying falsified medicines online (Di Nicola et al. 2015). Our role as project partners focused predominantly on a criminological investigation in the UK. Alongside additional research we have undertaken, this book specifically draws upon data collected via the UK-based virtual ethnography and the analysis of investigative and judicial case files collected as part of Fakecare, which we explain in more depth below. Therefore, data and findings from the UK report will appear in the book and any crossover is due to our involvement in the project (Di Nicola et al. 2016; see also Hall and Antonopoulos 2016a).

Methodology

This book is empirically grounded in over two years of fieldwork using a variety of research methods. The primary method was a virtual ethnography, which offered a nuanced way of researching the online trade in illicit medicines. We immersed ourselves in online communities and collected data from a range of sites deemed relevant to the research aims. The ethical issues of anonymity and confidentiality were of course considered—there is a fuller discussion of this issue below. Following a detailed discussion of the virtual ethnography, we will outline the additional methods and sources the book's findings rest upon, which include an offline ethnography, analyses of judicial and investigative case files, interviews with relevant stakeholders and enforcement officers, official statistics and secondary media and academic sources.

Virtual Ethnography

Traditionally, ethnographies were established as a means by which anthropologists and sociologists could explore cultural groups by using the technique of 'participant observation'. Observing and engaging with a specific group over an extended period of time allowed a 'thick description' (Geertz 1973), which contextualised human behaviour and everyday experiences, actions and practices. Ethnography and social research more generally has been compelled to account for the multi-sited, mobile and transnational nature of late-modern social, cultural, political and

economic life. The traditionally local research sites of ethnographies have therefore been expanded to analyse global, 'glocal', transnational and virtual sites (see Wittel 2000). In the present-day context, everyday life for many includes a significant proportion of time spent in virtual communities. Whether in forums, blogs or social networking sites, social processes and patterns of communication take place in a new 'sphere' established by the Internet (Janetzko 2008: 161). This requires from the ethnographer a methodology able to offer insights into the virtual worlds we regularly inhabit. What is typically labelled 'virtual ethnography' or 'netnography' has steadily increased in usage to offer researchers greater insights into virtual communities (see, e.g. Ward 1999; Hine 2000; Fox et al. 2005b; Davey et al. 2012).

In short, traditional ethnographic methods—qualitative techniques used to interpret and detail in-depth a set of practices via an immersion in a given culture over time—are modified in order to interact in online communities and environments. Here, virtual ethnographic methods form the basis of our social scientific enquiry into the consumer demand and illicit supply of pharmaceuticals online in the UK. Considering the vast size of the global shadow economy, which the Internet, acting 'as a force multiplier' (Yar 2006: 10; Yar 2012, 2013), facilitates in all sorts of resourceful ways, online research must also try to better understand the aetiology—actors, causes and motivations—of cybercrime. Moreover, this research relates not only to criminal behaviour in terms of the suppliers of illicit medicines, but to the potentially deviant behaviour of online consumers either knowledgeably buying illicit medicines and/or purchasing prescription-only medicines (POMs) without prescription.

Primary data were collected via the virtual ethnography in both non-reactive and reactive ways (see Janetzko 2008). Initially, research began with a period of non-participant observation (sometimes referred to as 'lurking'), whereby observations were made across a range of online sites without direct interaction with users. This included taking screenshots of images and text from publicly available webpages including OPs, forums, social networking sites and classified advertising, as well as from a number of darknet sites, which were then coded and analysed. This was an invaluable primary stage of data collection that gave us the opportunity to familiarise ourselves with such a mass of information and specific interactions. We identified websites on the surface web claiming to be OPs via Google using the keywords 'online pharmacy UK' (42,000,000 results) and 'buy medicine no prescription UK' (59,200,000 results). The searches took