Forum: HYC 2

Issue: Tackling online drug trafficking

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Introduction

The internet has reshaped how illicit drugs are advertised, sold, and delivered. What once relied on in-person trade of products now spans three online layers: public marketplace listings on the surface web, encrypted messaging where deals are finalised, and dark net markets that mimic authentic e-commerce with vendor ratings and cryptocurrency payments (UNODC n.d.). Transactions start online but finish offline—most often via postal and courier services, or, in some regions, through GPS-coordinated “dead drops” (Global Initiative 2025). This digital-to-physical blend format lowers barriers for suppliers and adds convenience for buyers, which all makes detection much harder.

Growth is driven by a few different factors, including a sense of anonymity (end-to-end encryption, Tor), global reach of the online market, rapid migration of vendors when platforms are taken down, and review systems that can create a false impression of safety. COVID-19 accelerated mail-based distribution and pushed more trade into private chats. At the same time, counterfeit pills and potent synthetics, often pressed to imitate legitimate medicines, are circulated widely online. Authorities have responded with market takedowns and more careful age gating, but cross-border jurisdiction, slow evidence sharing, and the high level of encryption that protects lawful users also shield criminal communications. Disruption typically sparks adaptation, where vendors develop methods that leave challenges for resolving this ongoing issue (TRM Labs 2025).

Definition of Key Terms

Online Drug Trafficking

Buying and selling illegal drugs via the internet, including advertising, paying, and delivery coordination. Activity spans from public posts and listings to encrypted messaging where deals are finalised, and dark net marketplaces that mimic legit e-commerce. Sellers use code words, emojis,

tags, and innocuous labels to label products to avoid detection and disguise drug listings as ordinary products.

Surface Web (Clearnet)

The openly accessible and searchable part of the internet. It includes everyday websites, news pages, forums, and online shops that do not require special software or authorisation to view.

Tor (The Onion Router)

Free, open software and a network that routes internet traffic through multiple relays to hide IP address and browsing history. It's used to enhance privacy and improve censorship. Tor also enables access to ".onion" sites that aren't reachable with standard browsers. Due to how hidden services' lower traceability, Tor is most widely used in illicit marketplaces, including online drug markets, though it's equally used for legitimate needs (e.g., journalism, activism, and safety from stalking) (AJQR 2022).

Dark Net

Networks that require specific software, configurations, or authorisation to access (e.g, Tor, I2P, Freenet). Content on the dark net isn't reachable via search engines and often exists as "hidden services" with non-standard domain formats. It's distinct from the "deep web," which simply refers to non-indexed content like paywalled pages or private databases.

End-to-End Encryption (E2EE) & Encrypted Messaging

E2EE is a communications design where messages are encrypted on the sender's device and can only be decrypted by the intended recipient (UNODC n.d.). Service providers transporting the data cannot read the content. Proper key management and device security are critical to E2EE's effectiveness.

Dead Drops

Delivery in which goods are hidden for later collection using GPS coordinates or photographed landmarks, avoiding face-to-face handoffs. Chats and couriers coordinate drops, which reduces the risk of tracking but creates digital and geospatial trails if accounts are exposed (Global Initiative 2025).

Counterfeit Pills

Tablets made to look like legitimate medicines (e.g, benzodiazepines, oxycodone) but containing illicit and drug compounds such as fentanyl. Branding and "pharmacy" aesthetics lower perceived risk, while variable intake leads to poisoning and overdose (INCB 2024).

Cryptocurrency

Digital assets recorded on blockchains enable peer-to-peer transfers without banks. Transparency varies by design (Bitcoin is traceable, privacy coins are not). Practical control points sit at exchanges and custodians, subject to certain rules, where identities and funds can be linked (TRM Labs 2025).

Risk Profiling

A data-driven method for prioritising online market deals of all forms for closer review using indicators such as route, sender history, or behaviour. The aim is to raise detection rates while minimising false positives and bias (UNODC n.d.).

Content Moderation & Age Gating

Platform policies and technical controls that detect, restrict, or remove prohibited content accessed by minors. Approaches include a combination of automated detection, human review, and age verification, and must balance safety with privacy.

Background Information

Youth exposure and public health harms

Young people encounter sellers through non-intentional platform discovery, or at times, targeted content. These features of the internet all lower the barrier to interacting with the online drug market. Counterfeit “pharmacy look” pills and potent synthetics create uncertainty in risk due to variable drug content and intake. Schools and families often face prevention and digital gaps, and hospitals see sudden spikes of overdose and poisoning cases, which stretch staff and resources.

Sold products and their risk factor

Drug products vary by region but commonly include cannabis, stimulants, novel psychoactive substances (NPS), and counterfeit pills mimicking legitimate medicines. Online “reputation” signals reliability of delivery, not medical safety, whereas composition remains uncertain. The combination of attractive branding and low perceived risk increases the likelihood of first-time or experimental use among individuals.

Trends

Since 2011, anonymity tools, global reach, and rapid vendor migration after takedowns have expanded growth since early dark net markets emerged. COVID-19 accelerated mail-based distribution and pushed more communication into encrypted chats. In recent years, vendors tend to have consolidation on a few, larger platforms alongside the use of encrypted channels and vendor-run

personal shops.

Payment trend of cryptocurrency

Payments are widely crypto-based in the online drug market. Beyond Bitcoin and privacy coins, stablecoins (especially USDT on TRON) are common because fees are low and prices don't swing during a deal. To make funds harder to trace, vendors may use decentralised exchanges and occasional mixing/coinjoin services. Cash payment often happens through routes that do not involve traditional bank controls and complicate enforcement.

Previous interventions

Marketplace takedowns, vendor arrests, and asset freezes disrupt online drug sale activity, but vendors typically reappear on new platforms or in even more encrypted channels. Platform moderation and age gating reduce exposure. However, doesn't block vendors' continual adaptation to prevention tactics efforts. Sustained impact tends to come from combining targeted enforcement with postal controls, financial tracking, as well as youth-centred harm reduction messaging (Global Initiative 2025).

Major Countries and Organisations Involved

United States

The United States holds a major online market where online retail is widespread across social apps, encrypted chats, and dark net sites (Global Initiative 2025). Strong investigative capacity and cooperation with postal/courier services, as well as crypto exchanges, shape global data access.

China

China acts primarily as an upstream supply and a reach in oversight of precursor chemicals, pill press components, and large e-commerce platforms that affect the global drug supply (INCB 2024). Once China alters its regulations or tightens exports, it quickly impacts what ends up being sold online.

Mexico

A production and transit hub linked to counterfeit pills and synthetics that are later marketed online in the global online market. Changes in precursor controls, port security, and financial intelligence can alter the availability and price of illicit drugs in downstream digital markets (INCB 2024).

European Union

The European Union hosts major ports and postal hubs, making EU screening and seizures

influential. The European Union has advanced coordination that enables efficient marketplace takedowns, crypto tracing, and analysis that inform wider international operations (Europol n.d.).

UNODC (United Nations Office on Drugs and Crime)

The United Nations technical lead on drug and cyber-facilitated trafficking. The UNODC releases the World Drug Report, practitioner toolkits, and postal risk profiling. Helps states align enforcement with prevention and youth protection aims.

WHO (World Health Organization)

The WHO frames the issue of online drug trafficking as a public health risk, with emphasis on overdose prevention, surveillance, treatment access, and risk communication. These ideas are especially relevant to counterfeit pills and youth exposure. The WHO is essential in bringing awareness to individuals on the internet who are at risk of exposure to illicit, digital drug trafficking.

Viable Solutions

Tackling online drug trafficking requires coordinated regulation of the platforms where the online drug markets thrive (Vox 2014). International law enforcement operations aimed at shutting down dark net marketplaces and encrypted services have proven effective in destabilizing organized networks, making it riskier and less profitable for traffickers to operate. At the same time, establishing stronger partnerships with major tech companies as well as e-commerce platforms can ensure that illicit content is detected and removed swiftly. Building reliable communication channels for takedowns and tightening oversight of digital payment systems can create collaborations that reduce the online accessibility of illegal sales (Vox 2014).

Enhancing postal and courier screening through target risk-based inspections and implementing more advanced scanning technologies can slow the usually fast delivery pipelines that criminals depend on. Coupling these measures with the use of advanced analytics and artificial intelligence allows authorities to track seller behaviour and, in turn, look for hidden patterns (SLCyber 2024a). Together, these strategies form a comprehensive framework that interrupts both the online presence and physical distribution of illicit drugs, making the market far more difficult to sustain.

Prevention and demand reduction should run along to maximize the effect. Funding should be allocated to well-founded school and community programs, youth-run media that challenge the prevalent misunderstanding that drugs taken online are 'safe'. Providing treatment with few restrictions, such as medication for opioid use disorder or contingency management for stimulants, could potentially allow

addicts to quit their reliance and use of the market.

The implementation of artificial intelligence has a lot of potential and offers a very versatile tool for tackling online drug trafficking by automating the detection of illicit activity at scale. AI systems can be trained to scan vast amounts of data across dark net forums, encrypted messaging patterns, and surface web platforms, flagging suspicious listings, keywords, and transaction behaviours far faster than human staff can. Machine learning models can also analyse financial flows and link them to known trafficking networks very effectively.

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