

WAR ON DRUGS 2.1: SETTING THE TERMS OF ENGAGEMENT

By

Di Ma¹ & Gregory D. Kaufmann²

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I. INTRODUCTION

During the Cold War era, there were fears of the Russians attacking the American telephone system.³ In the 1960s, scientists introduced the ARPAnet⁴ and packet switching so computers could securely communicate with each other on a network.⁵ Fast forward to 2017, approximately half of the world’s population is connected

¹ Di Ma graduated *summa cum laude* from Albany Law School in May 2014. She is honored by the continued support of the *Albany Law Journal of Science and Technology* in her pursuit of emerging technologies. Ms. Ma would like to thank Christine Sgarlata Chung, Svetlana Yarosh, and Elle Kylei Smith. Maybe Elle will not be one of only three girls enrolling in a computer science class in the next decade.

² Gregory D. Kaufmann is an autodidact with special interests in motor mechanics, digital infrastructure, and operational efficiencies in business.

³ *The Invention of the Internet*, HISTORY, <http://www.history.com/topics/inventions/invention-of-the-internet>.

⁴ *Id.* The acronym ARPA stands for the Department of Defense’s Advanced Research Projects Agency. Today, it has evolved into Defense Advanced Research Projects Agency. The agency develops emerging technologies for the military. For more information, visit <https://www.darpa.mil>.

⁵ *See id.* (describing ARPAnet as “a galactic network of computers that could talk to one another” and packet switching as the process that “breaks data down into blocks, or packets, before sending it to its destination [so] each packet can take its own route from place to place.”).

via modern day Internet.⁶ Google is estimated to process more than 40,000 searches per second⁷ and Facebook claims about 1.32 billion daily active users.⁸ However, what most people access is only a small portion of the World Wide Web,⁹ known as the Surface Web or Visible Web.¹⁰ This portion of the Web is searchable using standard search engines, such as Google, and consists of an index exceeding four billion web pages.¹¹

There is actually an unindexed portion of the web that is reportedly 400- to 500-times larger in size known as the Deep Web.¹² The easiest way to understand the Deep Web is it consists of anything on the web that cannot be found by a standard search engine.¹³ To complicate the Deep Web, there lies a subset portion called the Dark Web.¹⁴ The Dark Web comprises of anonymously hosted web pages that are only accessible through software that masks user IP addresses, such as The Onion Router (hereinafter “Tor”).¹⁵ Despite its secretive nature, the Dark Web is gaining

⁶ *Internet Growth Statistics*, INTERNET WORLD STATS, <http://www.internetworldstats.com/emarketing.htm>.

⁷ *Google Search Statistics*, INTERNET LIVE STATS, <http://www.internetlivestats.com/google-search-statistics/>.

⁸ *Company Info*, FACEBOOK, <https://newsroom.fb.com/company-info/>.

⁹ Cadie Thompson, *Beyond Google: Everything you need to know about the hidden internet*, BUSINESS INSIDER (Dec. 16, 2015), <http://www.businessinsider.com/difference-between-dark-web-and-deep-web-2015-11>. British scientist, Sir Tim Berners-Lee, is credited for creating the World Wide Web in 1989. *See also Tim Berners-Lee*, WORLD WIDE WEB CONSORTIUM, <https://www.w3.org/People/Berners-Lee> (for more on Berners-Lee); *Tim Berners-Lee: I invited the web. Here are three things we need to change to save it*, THE GUARDIAN (March 11, 2017), <https://www.theguardian.com/technology/2017/mar/11/tim-berners-lee-web-inventor-save-internet> (for Berners-Lee’s present-day opinions).

¹⁰ Thompson, *supra* note 9.

¹¹ *Id.* The number grew to at least 4.59 billion indexed web pages in 2017. *The Size of the World Wide Web (The Internet)*, WORLDWIDEWEBSIZE, <http://www.worldwidewebsize.com/>.

¹² Thompson, *supra* note 9.

¹³ *Id.* (“Think user databases, business intranets, web archives, password-protected websites, etc.”).

¹⁴ *Id.*

¹⁵ *Id.* *See also* Tim Fisher, *What is an IP Address?*, LIFEWIRE, <https://www.lifewire.com/what-is-an-ip-address-2625920> (describing what an IP address is). The most common way to access the Dark Web is by using The Onion Router, to be demonstrated in *infra* in Part II. *See, e.g.*, Thompson, *supra* note 9 (discussing The Onion Router); *The Do’s and Don’ts of Exploring the Dark Web with Tor Browser*, GUIDING TECH, <https://www.guidingtech.com/50281/dos-donts-deep-web-surfing/>; Jenna Kagel, *An Up-To-Date Layman’s Guide to Accessing the Deep Web*, FAST COMPANY (Feb. 26, 2014), <https://www.fastcompany.com/3026989/an-up-to-date-laymans-guide-to-accessing-the-deep-web>.

more mainstream attention.¹⁶

The main benefit of the Dark Web is anonymity.¹⁷ It enables free, unrestricted speech due to anonymity.¹⁸ Despite this positive aspect of the Dark Web, the media focuses on the more sensational side—marketplaces advertising drugs, weapons, kill-for-hire services, and pedophilic materials—especially when law enforcement releases the salacious details of each crackdown.¹⁹ Such commerce on the Dark Web does not seem to slow down.²⁰ Parallels have been drawn between the drug trade on the Dark Web and the online retail boom of the 1990s, with the online forum experiencing flourishing growth while street gangs hang onto established physical infrastructure without investing in

¹⁶ Kagel, *supra* note 15 (“In late October 2014, Facebook enabled Tor browser users to visit them anonymously, saying in a press release that ‘It’s important to us at Facebook to provide methods for people to use our site securely.’”).

¹⁷ Tim Sparapani, *The Dark Web is Still a Huge, Difficult Problem*, FORBES (Jun 28, 2016), <https://www.forbes.com/sites/timsparapani/2016/06/28/the-dark-web-is-still-a-huge-difficult-problem/#77e6134165b1>.

¹⁸ Vladimir Radunovic, *Dark Web: the Good, the Bad and the Ugly*, DIPLO (Aug. 5, 2016), <https://www.diplomacy.edu/blog/dark-web-good-bad-and-ugly>. “[T]he dark web enables the communication of human rights activists and whistleblowers around the world (it has facilitated freedom of expression in Iran and Egypt, and it has been used by WikiLeaks and Edward Snowden, as well as by journalists and even officials).” Sarah Volpenhein, *Dark Web Poses Challenges for Law Enforcement*, GOV’T TECH. (Aug. 10, 2015), <http://www.govtech.com/internet/Dark-Web-Poses-Challenges-for-Law-Enforcement.html>. “Tor is about making freedom of speech possible,” Bradbury said. “Especially in countries where governments really put the thumb screws on people being online . . . Tor has been used as a way to enable those people to communicate and get those messages out and even organize within their own countries in ways that stop them from being detected,” as political dissidents reportedly did during the Arab Spring, the 2011 civil uprisings against central governments in Middle Eastern countries, including Libya and Egypt.

¹⁹ See, e.g., *id.*; *Untangling the ‘Dark Web’: New Study Shows Steady Growth of the Online Illicit Drugs Trade*, RAND CORP. (Aug. 8, 2016), <https://www.rand.org/news/press/2016/08/08.html>; Andy Greenberg, *The Silk Road Creator’s Life Sentence Actually Boosted Dark Web Drug Sales*, WIRED (May 23, 2017), <https://www.wired.com/2017/05/silk-road-creators-life-sentence-actually-boosted-dark-web-drug-sales/>; Di Ma, *Taking a Byte out of Bitcoin Regulation*, 27 ALB. L.J. SCI. & TECH. 1 (2015) (for further discussion of activities on the Dark Web).

²⁰ See e.g., *The Amazons of the Dark Net*, THE ECONOMIST (Nov. 1, 2014), <https://www.economist.com/news/international/21629417-business-thriving-anonymous-internet-despite-efforts-law-enforcers>; James Cook, *An In-Depth New Study Shows that the Online Market for Illegal Drugs is Skyrocketing*, BUSINESS INSIDER (Aug. 11, 2016), <http://www.businessinsider.com/rand-europe-study-on-deep-web-online-drug-marketplaces-shows-growth-since-2013-2016-8> (for further discussion of commerce on the Dark Web).

innovation.²¹ This article will introduce the basics of drug deals on the Dark Web in Part II, the rise and fall of nefarious cyber marketplaces and their founders in Part III, privacy issues surrounding the prosecution of Dark Web crimes in Part IV, and recommendation for United States governmental actions in the combat against the online drug trade in Part V.

II. THE BASICS OF DRUG SALES ON THE DARK WEB

Here is a step-by-step guide to logging onto a Dark Web marketplace:²²

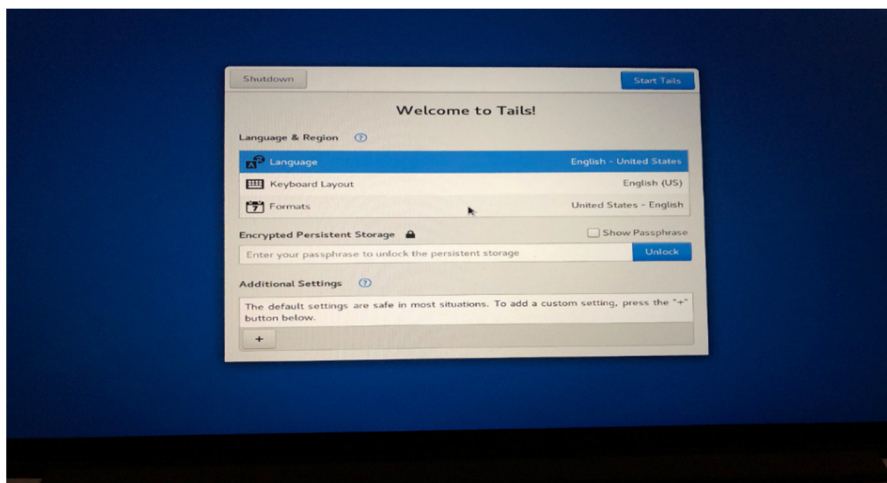
1. Download and install the latest version of The Amnesic Incognito Live System (hereinafter “Tails”), a Linux-based operating system that routes outgoing connections through Tor and blocks non-anonymous connections.²³ This system runs on an independent USB drive or DVD and does not leave any digital footprints on the computer unless the user instructs otherwise.²⁴

²¹ *Buying Drugs Online: Shedding Light on the Dark Web*, THE ECONOMIST (July 16, 2016), <https://www.economist.com/news/international/21702176-drug-trade-moving-street-online-cryptomarkets-forced-compete>.

²² There are many different ways to access the Dark Web, including downloading Tor directly through <https://www.torproject.org>. These steps were taken by the authors for the purposes of this article. Oddly enough, Tor is the result of research done by the United States Naval Research Laboratory, which created Tor for political dissidents and whistleblowers, allowing them to communicate without fear of reprisal. Tor was so effective in providing anonymity for these groups that it did into take long for the criminally-minded to start using it as well. That leaves American law enforcement in the ironic position of attempting to track criminals who are using government-sponsored software to hide their trails. Tor, it would seem, is a double-edged sword. Nathan Chandler, *How the Deep Web Works*, HOWSTUFFWORKS, <http://computer.howstuffworks.com/internet/basics/how-the-deep-web-works5.htm>.

²³ TAILS, <https://tails.boum.org/>.

²⁴ *About*, TAILS, <https://tails.boum.org/about/index.en.html>.

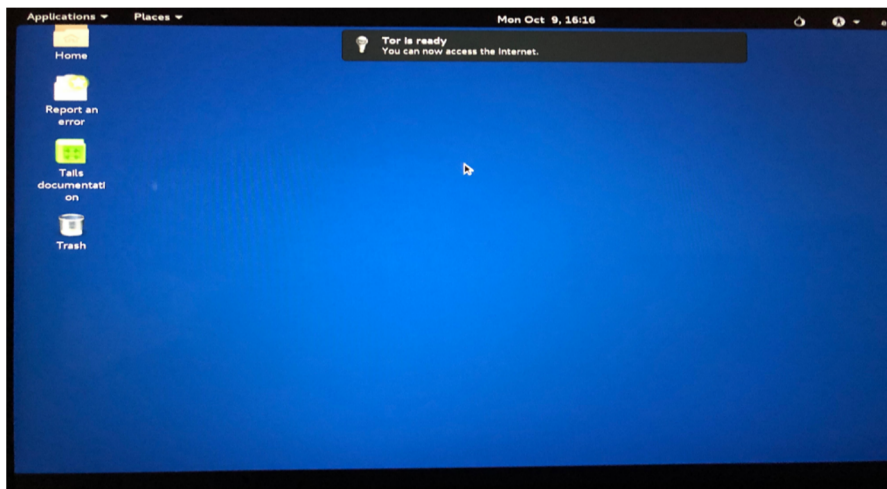
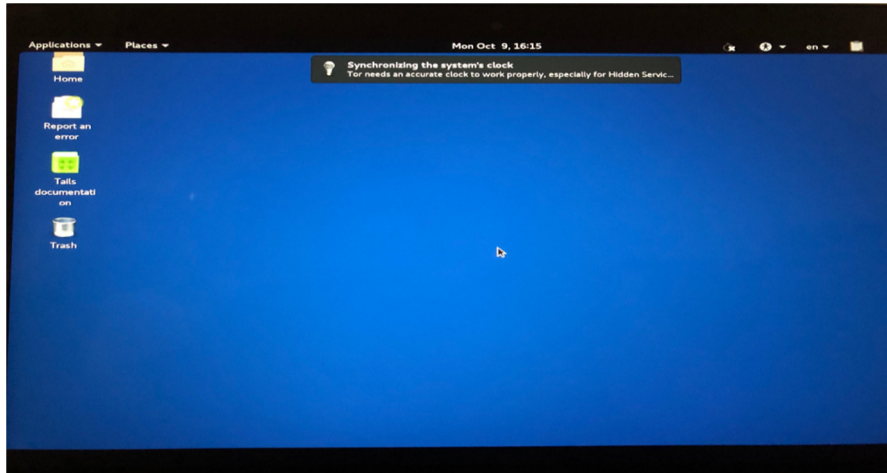


2. Sign up for an anonymous virtual private network (hereinafter “VPN”) so the true IP address is masked and all traffic is encrypted.²⁵ Choose a VPN service based in countries such as Switzerland with strong data protection laws that do not require VPN providers to store or share personal identification data.²⁶

²⁵ Paul Bischoff, *How to Hide Your IP Address or Change it with a VPN or Smart DNS*, COMPARITECH (Sept. 21, 2016), <https://www.comparitech.com/blog/vpn-privacy/how-to-hide-your-ip-address-or-change-it-with-a-vpn-or-smart-dns/>.

²⁶ See Bruce Brown, *Switzerland Protected Your Money—Now It’ll Protect Your Data*, DIGITAL TRENDS (Apr. 21, 2016), <https://www.digitaltrends.com/computing/switzerland-data-security/> (favoring Switzerland’s reputation for strong data privacy due to Art. 13, Sections 1 and 2 of the Swiss Constitution, which, respectively, state: “Every person has the right to privacy in their private and family life and in their home, and in relation to their mail and telecommunications” and “[e]very person has the right to be protected against the misuse of their personal data”). See also, e.g., TUNNELBEAR, <https://www.tunnelbear.com/>; VYPRVPN, <https://www.goldenfrog.com/vyprvpn>; HOTSPOT SHIELD, <https://www.hotspotshield.com/> (for examples of VPN services).

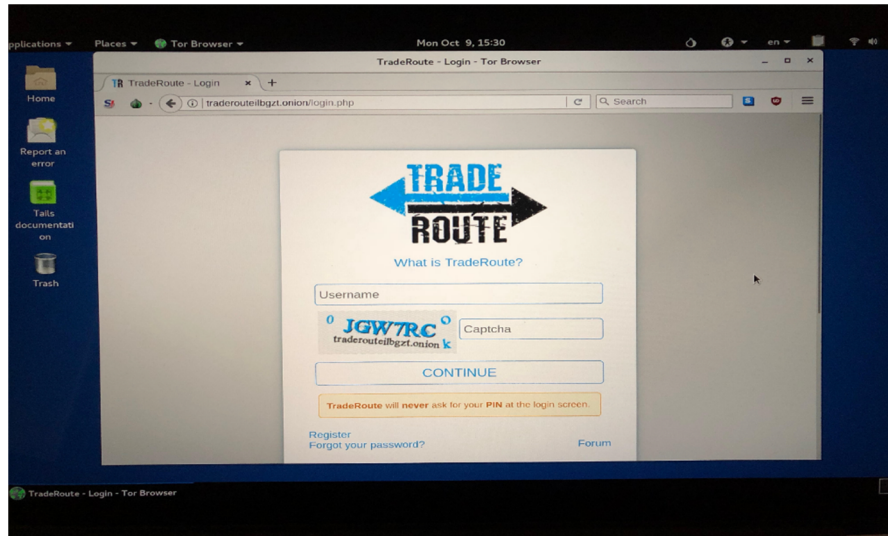
3. Wait for Tor to be ready.



4. Use Pretty Good Privacy (hereinafter “PGP”) encryption program for secured communications on the Dark Web.²⁷

²⁷ Chris Pacia, *Beginners' Guide To PGP*, BITCOIN NOT BOMBS (Dec. 30, 2013), <http://www.bitcoinnotbombs.com/beginners-guide-to-pgp/>. Both parties usually use PGP encryption when communicating through the marketplace, and all shipping addresses are encrypted using PGP. Some of the markets offered auto-PGP encryption. If the market was compromised by law enforcement, it would just require a couple lines of code to reveal the true address of auto-encryption

5. Access a directory, such as The Hidden Wiki, to connect with various services.²⁸
6. Pick a marketplace, such as TradeRoute.²⁹

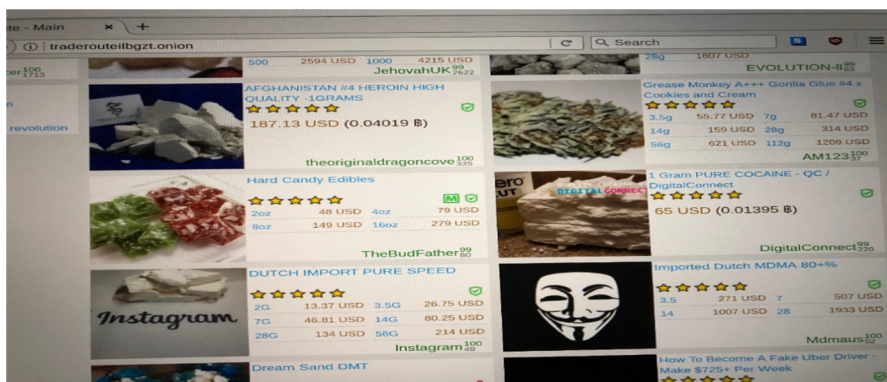


users. The smart operators manually encrypt the information they send over the marketplace.

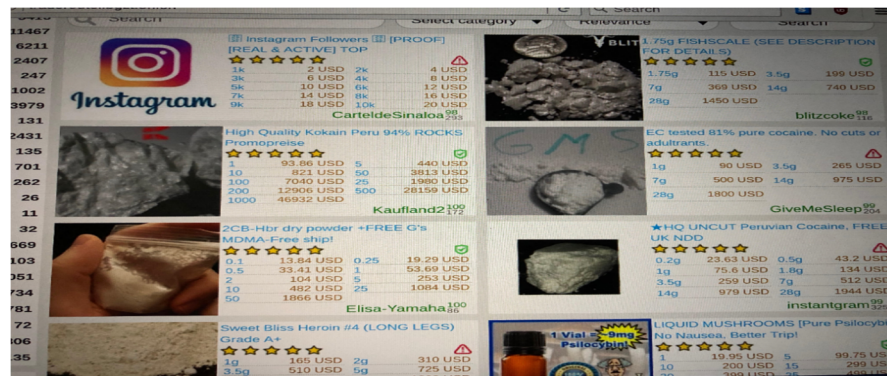
²⁸ *Hidden Wiki .onion URLs Tor Link Directory*, THE HIDDEN WIKI (Sept. 21, 2013), <https://thehiddenwiki.org/>.

²⁹ See *Dark Web & Deep Web Market List With Up & Down Daily Updated Market Status*, DARK WEB NEWS, <https://darkwebnews.com/dark-web-market-list/> (providing a list of marketplaces, like TradeRoute, that are available on the Dark Web).

7. Proceed to transact as one would on legitimate online marketplaces such as Amazon or eBay.³⁰



8. Note that these marketplaces only accept virtual currency, such as Bitcoin, that can be bought on an Internet exchange.³¹



³⁰ See Anick Jesdanun, *AlphaBay: How Dark Web Marketplaces Operate Like eBay*, THE INDEPENDENT (July 21, 2017), <http://www.independent.co.uk/news/business/news/alphabay-dark-web-marketplace-ebay-online-us-justice-department-illegal-drugs-a7852486.html> (observing the similarities of the dark market in comparison to legitimate marketplaces, such as eBay, because of having dispute-resolution services, matching buyers and sellers, and stamping out fraud). Accessing the Dark Web is legal. However, the authors do not condone the purchase or sale of any contraband at any marketplace.

³¹ Dean, *Dark Markets: How to Buy Things from the Deep Web's Black Markets*, CRYPTORIALS (July 11, 2015), <http://cryptorials.io/dark-markets-how-to-buy-things-from-the-deep-webs-black-markets/>.

III. RISE AND FALL OF DARK WEB MARKETPLACES

The Dark Web offers many advantages to sellers and buyers.³² For the sellers, there is no risk of violent retaliation by competitors or customers.³³ For the buyers, the quality of drugs is higher when bought online.³⁴ For example, one study found the average purity level for cocaine when bought via the Dark Web is 71.6%, compared to 48% on the Spanish streets.³⁵ For both the sellers and buyers, the risk of being arrested is lower when proper precautions are taken.³⁶ When sellers prepare a package to be shipped, latex gloves and bleach are used to avoid leaving forensic evidence.³⁷ A printed label using fake addresses are used to throw off customs and other governmental agencies.³⁸ It is estimated that approximately 90% of shipments arrive at their final destinations.³⁹ Buyers can use ratings and escrow services, identical to legitimate online marketplaces, to gain a sense of reliability in these transactions.⁴⁰ Both parties communicate via secured and encrypted e-mail services unique to the Dark Web, leaving very little traces of evidence for law enforcement to gather.⁴¹

There are also risks associated with the Dark Web. Doxxing is the online version of blackmailing.⁴² If a seller is unhappy with a buyer, the seller may threaten to publish the buyer's delivery address.⁴³ Like the rest of the World Wide Web, the Dark Web is susceptible to denial-of-service attacks where repeated, phony requests render a page temporarily unavailable.⁴⁴ Finally, even with the best precautions, people associated with the Dark Web marketplaces do get arrested. The most notorious bust is still the downfall of the first well-known marketplace on the Dark Web, the

³² See, e.g., A. Grey, *The Ups and Downs of Dark Net Markets*, DEEPDOTWEB (June 6, 2016), <https://www.deepdotweb.com/2016/06/06/ups-downs-dark-net-markets/> (discussing the various advantages of using dark net markets compared to other methods).

³³ *Buying Drugs Online*, *supra* note 21.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Buying Drugs Online*, *supra* note 21.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

Silk Road.⁴⁵

In 2011, the Silk Road was created by Ross Ulbricht, known to the online community as Dread Pirate Roberts.⁴⁶ Law enforcement did not pay meaningful attention until much later, when it grew to 13,000 listings offering a wide variety of drugs for sale.⁴⁷ The main strategy that ultimately led law enforcement to Ulbricht was focusing on the top sellers, moderators, and system administrators.⁴⁸ Ulbricht was finally arrested in October 2013.⁴⁹ This case changed the way law enforcement conducted investigations.⁵⁰ In the real world, law enforcement usually starts with an individual suspect and subpoenas are used to collect more information to penetrate a wider network of criminals.⁵¹ On the Dark Web, law enforcement has to gather information from the targeted marketplace and use that information to identify specific suspects.⁵²

Subsequent to the Silk Road takedown, many more successors arose in its place, including Silk Road 2.0 and Silk Road 3, also known as Silk Road 3.1.⁵³ Not all marketplaces kept the Silk Road namesake. In July 2017, the FBI and Europol announced the simultaneous closure of two of the largest markets on the Dark Web, AlphaBay and Hansa.⁵⁴ While this is a major

⁴⁵ See generally Joshua Bearman & Tomer Hanuka, *The Untold Story of Silk Road, Part 1*, WIRED (May 2015), <https://www.wired.com/2015/04/silk-road-1/> (for discussion of the rise and fall of the Silk Road).

⁴⁶ *Id.*

⁴⁷ *Id.* (“It was a colorful smorgasbord for every type of connoisseur: fishscale Colombia cocaine, Afghan No. 4 heroin, strawberry LSD, Caramello hash, Mercury’s Famous Uncut cocaine flakes, Mario Invincibility Star STC, white Mitsubishi MDMA, a black tar heroin called the Devil’s Licorice.”) Homeland Security started Operation Marco Polo in Jan. 2012, and the FBI started its first TOR case, Operation Onion Peeler, in Feb. 2013. *The Silk Road, The Online Manhunt and Ross Ulbricht*, EYERYS, <https://www.eyerys.com/articles/people/silk-road-and-ross-ulbricht#4>.

⁴⁸ Kim Zetter, *How the Feds Took Down the Silk Road Drug Wonderland*, WIRED (Nov. 18, 2013), <https://www.wired.com/2013/11/silk-road/>. Admittedly, simple mistakes were made on Ulbricht’s part such as using the e-mail address rossulbricht@gmail.com on multiple forums. *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

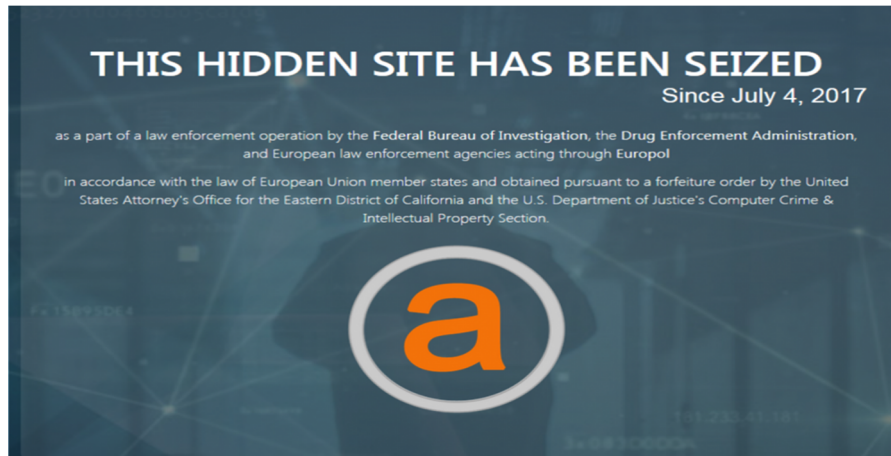
⁵¹ *Id.*

⁵² *Id.*

⁵³ *Guide on How to Access the Silk Road 3.0*, SILK ROAD DRUGS, <https://silkroaddrugs.org/guide-on-how-to-access-the-silk-road-3-0/>. See also *Silk Road Creator’s Life Sentence*, *supra* note 19 (noting the increase in Dark Web drug sales after the fall of Silk Road).

⁵⁴ *Darknet Takedown, Authorities Shutter Online Criminal Market AlphaBay*, FBI (July 20, 2017), [https://www.fbi.gov/news/stories/alphabay-takedown](https://www.fbi.gov/news/stories/alphabay-takedown;);

accomplishment for law enforcement, even United States Attorney General Jeff Sessions acknowledged that other markets will emerge soon, repeating the evolution of the Silk Road.⁵⁵



The shutdown notice posted on AlphaBay and Hansa.⁵⁶

The FBI was mainly credited for spearheading the takedown of AlphaBay.⁵⁷ The alleged mastermind behind AlphaBay is Canadian Alexandre Cazes, who died while being detained in Thailand before the request for extradition to the United States could be executed.⁵⁸ In the petition against Cazes, the government levied charges of conspiracy to engage in a racketeer influenced corrupt organization; narcotics conspiracy; distribution of a

Massive Blow to Criminal Dark Web Activities After Globally Coordinated Operation, EUROPOL (July 20, 2017), <https://www.europol.europa.eu/newsroom/news/massive-blow-to-criminal-dark-web-activities-after-globally-coordinated-operation>. Both agencies cite the cooperation of multiple agencies, including the United States Drug Enforcement Agency and the Dutch National Police.

⁵⁵ Thomas Fox-Brewster, *Forget Silk Road, Cops Just Scored Their Biggest Victory Against the Dark Web Drug Trade*, FORBES (July 20, 2017), <https://www.forbes.com/sites/thomasbrewster/2017/07/20/alphabay-hansa-dark-web-markets-taken-down-in-massive-drug-bust-operation/#7ab101d05b4b>.

⁵⁶ *Id.*

⁵⁷ See Andy Greenberg, *Global Police Spring a Trap on Thousands of Dark Web Users*, WIRED (July 20, 2017), <https://www.wired.com/story/alphabay-hansa-takedown-dark-web-trap/> (stating that the takedown had “previously been reported as an FBI operation,” and that the FBI “has now confirmed that takedown”).

⁵⁸ Russell Brandom, *Feds Have Taken Down Two Major Dark Web Marketplaces*, THE VERGE (July 20, 2017), <https://www.theverge.com/2017/7/20/16003046/alphabay-takedown-hansa-marketplace-fbi-europol-sessions>.

controlled substance, attempt, and aiding and abetting for marijuana, heroin, fentanyl, and methamphetamine; conspiracy to commit identity theft and fraud related to identification documents; unlawful transfer of a false identification document, attempt, and aiding and abetting; conspiracy to commit access device fraud; and trafficking in device making equipment, attempt, and aiding and abetting; and money laundering conspiracy.⁵⁹ While the Cazes case may have died with the defendant, other Dark Web cases have highlighted privacy issues in the prosecution of these cybercrimes.

IV. PROSECUTION OF DARK WEB CRIMES

The biggest challenge faced by law enforcement is it has to rely upon human error to identify the criminals.⁶⁰ Like Ulbricht, Homeland Security captured Brandon Corde for selling fentanyl citrate, which led to an 18-year-old's death, after Corde used the username "pdxblack" on both the Dark Web marketplace Evolution and popular messaging service Kik.⁶¹ After the authorities obtained the user information, Corde's IP address was obtained through a subpoena.⁶² These cases where law enforcement employed traditional investigative techniques, such as going undercover and obtaining a subpoena on a specific target seeking specific information, are straightforward. Ulbricht received a life sentence and lost on his appeal in May 2015.⁶³ Corde pleaded guilty and was also sentenced to life in prison in July 2016.⁶⁴

In cases like AlphaBay and Hansa, the legality of law enforcement's actions becomes murky. Federal agents did not simply shut down the marketplaces.⁶⁵ They used a website-

⁵⁹ Indictment at 1, *U.S. v. Cazes* (E.D. Cal. 2017) (No. 1:17 CR – 00144).

⁶⁰ Volpenhein, *supra* note 18.

⁶¹ *Id.* Ulbricht's identity is discussed *supra* note 48.

⁶² *Id.*

⁶³ Andy Greenberg, *Silk Road Creator Ross Ulbricht Loses his Life Sentence Appeal*, WIRED (May 31, 2017), <https://www.wired.com/2017/05/silk-road-creator-ross-ulbricht-loses-life-sentence-appeal/>.

⁶⁴ Becky Jacobs, *Oregon Man Pleads Guilty for 'Integral Role' in Grand Forks Fentanyl Deaths*, GRAND FORKS HERALD (Mar. 7, 2016), <http://www.grandforksherald.com/news/3981314-oregon-man-pleads-guilty-integral-role-grand-forks-fentanyl-deaths>; Ethan Nelson, *'I Hurt a Lot of People,' Says Man Sentenced to Life in Prison for Grand Forks Fentanyl Deaths*, INFORUM (July 13, 2016), <http://www.inforum.com/news/4073311-i-hurt-lot-people-says-man-sentenced-life-prison-grand-forks-fentanyl-deaths>.

⁶⁵ *Global Police Spring a Trap*, *supra* note 57.

hacking type operation and/or server based malware to gain control of the marketplaces, setting up honeypot traps to gather user data, and continued operations for weeks while collecting data.⁶⁶ The FBI employed the network investigative technique (hereinafter “NIT”) to uncover user identities.⁶⁷ NIT essentially pings the real IP address of Web users back to a server, regardless of proxy settings.⁶⁸ However, American laws have not advanced at the pace of technology, and these practices bring up privacy issues.⁶⁹

The American Civil Liberties Union (hereinafter “ACLU”) called the act of obtaining multiple IP addresses through NIT hacking authorized by a single warrant “simply unprecedented.”⁷⁰ A federal public defender argued that the FBI’s use of NIT is an “extraordinary expansion of government surveillance and its use of illegal search methods on a massive scale.”⁷¹ The ACLU claimed that judges often do not have a full understanding of NIT and the Department of Justice intentionally keep subpoena applications vague.⁷² A single warrant ultimately opens the gate to unlimited number of searches targeting any unknown suspect everywhere in this world.⁷³

It is well-established law that a warrant is valid for the purposes of the Fourth Amendment if it is: (1) issued by a neutral and

⁶⁶ Fox-Brewster, *supra* note 55; *Details Emerge of the German Administrators of Hansa Market on the Darknet*, DEUTSCHE WELLE (July 22, 2017), <http://www.dw.com/en/details-emerge-of-the-german-administrators-of-hansa-market-on-the-darknet/a-39804272>; James Woods, *AlphaBay and Hansa Seized, Dream Darknet Market Compromised*, THE MERKLE (July 20, 2017), <https://themerke.com/alphabay-and-hansa-seized-dream-darknet-market-compromised/>. The United States government pays a lot of money to find bugs in the Tor browser. Alex Hern, *U.S. Government Increases Funding for Tor, Giving \$1.8m in 2013*, THE GUARDIAN (July 29, 2014), <https://www.theguardian.com/technology/2014/jul/29/us-government-funding-tor-18m-onion-router>.

⁶⁷ *Details Emerge*, *supra* note 66; Pierluigi Paganini, *Law Enforcement and the Dark Web: A Never-Ending Battle*, INFOSEC INST. (July 19, 2016), <http://resources.infosecinstitute.com/law-enforcement-and-the-dark-web-a-never-ending-battle/#gref>.

⁶⁸ Paganini, *supra* note 67.

⁶⁹ See Joseph Cox, *The FBI’s ‘Unprecedented’ Hacking Campaign Targeted over a Thousand Computers*, VICE (Jan. 5, 2016), https://motherboard.vice.com/en_us/article/qkj8vv/the-fbis-unprecedented-hacking-campaign-targeted-over-a-thousand-computers (noting potential legal issues that may arise).

⁷⁰ *Id.* In this case, 1,300 IP addresses were identified in a sting against pedophilia.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

detached magistrate, (2) supported by probable cause, and (3) sufficiently particular in its description of the “things to be seized” and the “place to be searched.”⁷⁴ A warrant is sufficiently particular if “the items to be seized and the places to be searched [are] described with sufficient particularity as to enable the searcher to locate and identify the places and items with reasonable effort and to avoid mistakenly searching the wrong places or seizing the wrong items.”⁷⁵ Every honeypot sting operation leads to countless court challenges over the validity of a single warrant issued in one jurisdiction and the admissibility of evidence obtained under such warrant that resulted in multiple worldwide arrests.⁷⁶

The latest example of this controversy is the FBI takedown of a Dark Web child sex abuse website, Playpen.⁷⁷ From February 20, 2014, to March 4, 2014, the FBI ran Playpen as a part of “Operation Pacifier” and obtained information from more than 8,000 computers that visited the site.⁷⁸ This investigation ultimately led to almost 900 arrests around the world.⁷⁹ One of the accused is Terry Lee Carlson, Sr. of Minnesota.⁸⁰ In his motion to suppress evidence, including 20 storage drives, federal magistrate Judge Franklin Noel ruled:

[T]he Government claims legal authority from this single warrant, issued in the Eastern District of Virginia, to hack thousands of computers in 120 countries and to install malicious software for the purpose of investigating and searching the private property of uncounted individuals whose identities and crimes were unknown to the Government before launching this massive worldwide search.

[T]he Court concludes that the Government, by using the NIT malware to collect data from Carlson’s activating

⁷⁴ *Dalia v. U.S.*, 441 U.S. 238, 255 (1979).

⁷⁵ *U.S. v. Gleich*, 397 F.3d 608, 611 (8th Cir. 2005).

⁷⁶ See Lisa Vaas, *It Is Not OK to Break the Law to Catch Criminals, Judge Rules*, NAKED SECURITY (June 8, 2017), <https://nakedsecurity.sophos.com/2017/06/08/it-is-not-ok-to-break-the-law-to-catch-criminals-judge-rules/> (documenting the frequency of legal challenges to evidence obtained “through the NIT exploit.”).

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ Report & Recommendation, *U.S. v. Carlson*, 2017 WL 1535995 (D. Minn. Mar. 23, 2017).

computer conducted an unlawful search that was not supported by a lawful warrant.⁸¹

This is not the first time that evidence gathered by the FBI in this fashion has been excluded from a trial.⁸²

However, United States District Chief Judge John Tunheim affirmed that the search warrant exceeded the Eastern District of Virginia Judge's authority because the tracking device was installed in Minnesota, but ruled the evidence cannot be suppressed, citing Supreme Court precedent that admits evidence if law enforcement acted in good faith and generally followed proper procedure.⁸³ Until case law regarding the Dark Web and the new investigative techniques employed by law enforcement is more settled, no one can predict how these cybercrime prosecutions will impact everyone's right to privacy when surfing the World Wide Web.

V. RECOMMENDATION

Many countries—including Austria, China, India, Russia, and Turkey—have fought back against the Dark Web by effectively banning Tor and/or VPNs.⁸⁴ The United States government should

⁸¹ *Id.* at *4. Judge Noel denounces the FBI's actions by stating:

The purpose and flagrancy of the FBI's misconduct in attempting to obtain the NIT warrant and deploying the NIT malware is truly staggering. In order to identify Playpen users, the FBI operated a copied version of a dark web, child pornography website for two weeks. During that period, countless images and video content depicting child pornography were globally downloaded and distributed via the Playpen. In essence, the FBI facilitated the victimization of minor children and furthered the commission of a more serious crime—the distribution of child pornography—to primarily identify offenders committing less serious crimes—viewing and receipt of child pornography.

Id. at *18.

⁸² Order Excluding Evidence, *U.S. v. Michaud*, No. 3:15-cr-05351-RJB (W.D. Wash. May 25, 2016).

⁸³ Order on Report & Recommendation, *U.S. v. Carlson*, 2017 WL 3382309, at *8 (D. Minn. Aug. 7, 2017). See also *U.S. v. Welch*, 811 F.3d 275, 280 (8th Cir. 2016) (“[A] [Rule 41] procedural violation is not per se an unreasonable search and seizure in violation of the Fourth Amendment.”).

⁸⁴ See Michael Chertoff, *A Public Policy Perspective of the Dark Web*, 2 J. OF CYBER POL'Y 26 (2017); Kieren McCarthy, *Russia, China Vow to Kill off VPNs, Tor Browser*, THE REGISTER (July 11, 2017), https://www.theregister.co.uk/2017/07/11/russia_china_vpns_tor_browser/; Efe Kerem Sozeri, *Activists Fight Back Against Turkish Government's Block on Tor and VPNs*, THE DAILY DOT (Nov. 6, 2016), <https://www.dailydot.com/layer8/turkey-block-tor-vpns-activists/>; Heini

not follow these footsteps for several reasons. First, marketplaces on the Dark Web are constantly changing, as seen through the resurrection of the Silk Road alone.⁸⁵ Second, technology will always outpace the government.⁸⁶ Banning Tor is a near impossibility at this point, with China being one of the few countries that has a chance at success.⁸⁷ Even if Tor is completely blocked, there are still workarounds, and perhaps new technology will eventually emerge.⁸⁸ Third, unlike the other countries known for censorship, the United States recognizes the constitutional guarantees contained in the First Amendment as the bedrock principles of a free people.⁸⁹

Australia is often highlighted in Dark Web drug trafficking articles due to its remote location and diligent customs officials

Jarvinen, *Russia and Austria Take Action Against Use of Tor*, EDRI (July 30, 2014), <https://edri.org/russia-and-austria-take-action-against-use-of-tor/>; Joseph Cox, *An Indian ISP Says Authorities Asked it to Block Access to Dark Web Marketplaces*, VICE (Aug. 12, 2015), https://motherboard.vice.com/en_us/article/ezy7e/an-indian-isp-says-authorities-asked-it-to-block-access-to-dark-web-marketplaces (for discussion of the countries' efforts to counter the Dark Web).

⁸⁵ *Q&A: The Deep Web, Anonymity, and Law Enforcement*, TREND MICRO USA (Sept. 10, 2015), <https://www.trendmicro.com/vinfo/us/security/news/cybercrime-and-digital-threats/qna-deep-web-anonymity-and-law-enforcement>.

⁸⁶ See Adam Greenberg, *It's About to Get Even Easier to Hide on the Dark Web*, WIRED (Jan. 20, 2017), <https://www.wired.com/2017/01/get-even-easier-hide-dark-web/>.

Soon anyone will be able to create their own corner of the [I]nternet that's not just anonymous and untraceable, but entirely undiscoverable without an invite. . . . The next generation of hidden services will use a clever method to protect the secrecy of those addresses. Instead of declaring their .onion address to hidden service directories, they'll instead derive a unique cryptographic key from that address, and give that key to TOR's hidden service directories. Any TOR user looking for a certain hidden service can perform that same derivation to check the key and route themselves to the correct darknet site. But the hidden service directory can't derive the .onion address from the key, preventing snoops from discovering any secret darknet address.

⁸⁷ See Kari Paul, *Russia Wants to Block Tor, But it Probably Can't*, VICE (Feb. 18, 2015), https://motherboard.vice.com/en_us/article/ypwevy/russia-wants-to-block-tor-but-it-probably-cant. China has maintained tight control over its Internet infrastructure from the very beginning. "Blocking Tor is more complex, and requires identifying and blocking the destination nodes traffic travels through rather than the URL or IP address." If a website is not hosted within that country, then blocking TOR becomes very difficult.

⁸⁸ See Mrphs, *Breaking Through Censorship Barriers, Even When Tor is Blocked*, TOR BLOG (AUG. 3, 2016), <https://blog.torproject.org/breaking-through-censorship-barriers-even-when-tor-blocked> (discussing alternative ways to access TOR).

⁸⁹ See U.S. CONST. amend. I (establishing freedoms applicable to all citizens).

during the screening process.⁹⁰ The United States government can certainly attempt to build a wall against illegal drugs, but physical barriers are not the complete answer.⁹¹ While the efforts by Australia border control should be commended, border control alone does not end the drug narrative. Due to the perceived border protectionism, drug sales on the Dark Web have been on the rise within Australia.⁹² In 2017, the Penington Institute of Australia reported that fentanyl-related deaths increased substantially alongside increases in fatal accidental overdoses of pethidine and tramadol.⁹³ This news prompted the CEO of the Penington Institute, John Ryan, to argue that reducing supply does not lead to a decrease in drug addiction, and people will keep dying until there is improved access to evidence-based treatment services.⁹⁴ The United States should shift resources away from the immeasurable War on Drugs⁹⁵ and toward improving accessible treatment services.

Here in the United States, the FBI, with the assistance of other agencies, has claimed major victories in shutting down major marketplaces on the Dark Web. However, those crackdowns did not happen without legal controversy. Existing court rulings have highlighted problems in the FBI's honeypot traps and NIT use. Can a single warrant give federal agents the authority to collect evidence from anyone around the world? Is it permissible for a single warrant to authorize the FBI to run a marketplace and

⁹⁰ See, e.g., *Buying Drugs Online*, *supra* note 21.

⁹¹ See *id.* A non-scientific estimate—including Australia—based on customer reviews on the Dark Web shows 90% of shipments get through these barriers to entry. Prices for drugs that cross the Australia border are sometimes three- or four-times higher because sellers price in the risk of losing shipments to government seizure.

⁹² See, e.g., James Martin, *Australia Emerges as a Leader in the Global Darknet Drugs Trade*, THE CONVERSATION (Feb. 16, 2017), <http://theconversation.com/australia-emerges-as-a-leader-in-the-global-darknet-drugs-trade-73125> (discussing Australia's rise in drug trade and the darknet); see also Peter Mitchell, *Australia a Major Seller of Dark Web Drugs*, THE NEW DAILY (Aug. 9, 2016), <http://thenewdaily.com.au/news/national/2016/08/09/dark-web-drugs-australia/> (naming Australia as a leading nation in Dark Web drug sales).

⁹³ *Fatal Fentanyl Overdoses Rise as Australians Turn to More Potent Painkillers*, THE ASSOCIATED PRESS (Aug. 31, 2017), <https://www.theguardian.com/australia-news/2017/aug/31/fatal-fentanyl-overdoses-rise-as-australians-turn-to-more-potent-painkillers>.

⁹⁴ *Id.*

⁹⁵ See generally Eduardo Porter, *Numbers Tell of Failure in Drug War*, N.Y. TIMES (July 3, 2012), <http://www.nytimes.com/2012/07/04/business/in-rethinking-the-war-on-drugs-start-with-the-numbers.html> (addressing failures of the War on Drugs).

further the commission of more serious crimes including racketeering and money laundering to identify offenders who may be buying a small quantity of marijuana, at a time when a majority of the states have legalized marijuana for either medicinal or recreational use?⁹⁶ While elements of traditional law enforcement issues such as entrapment still exist in Dark Web investigations, existing laws are not intended to address the unique circumstances surrounding emerging technologies such as masked IP addresses, VPNs and proxies, and government-sanctioned hacking.⁹⁷

The government should take a pragmatic look at its current stance on drugs IRL (in real life). After 40 years of President Richard Nixon's War on Drugs, the United States has spent over \$1 trillion, arguably without seeing any significant impact on drug abuse.⁹⁸ The criminalization of drug-related activities has led to

⁹⁶ *State Marijuana Laws in 2017 Map*, GOVERNING, <http://www.governing.com/gov-data/state-marijuana-laws-map-medical-recreational.html>. "Twenty-nine states and the District of Columbia currently have laws broadly legalizing marijuana in some form."

⁹⁷ See, e.g., Sophia D. Vogt, *The Digital Underworld: Combating Crime on the Dark Web in the Modern Era*, 15 SANTA CLARA J. INT'L L. 104, 114–15 (2017) (discussing the American legal framework and Internet investigative techniques); Nina Burleigh, *The Rise and Fall of Silk Road, the Dark Web's Amazon*, NEWSWEEK (Feb. 19, 2015), <http://www.newsweek.com/2015/02/27/silk-road-hell-307732.html> (discussing law enforcement tactics resembling entrapment).

⁹⁸ *After 40 years, \$1 trillion, US War on Drugs has Failed to Meet any of its Goals*, THE ASSOCIATED PRESS (May 13, 2010), <http://www.foxnews.com/world/2010/05/13/ap-impact-years-trillion-war-drugs-failed-meet-goals.html>

In 40 years, taxpayers spent more than:

- \$20 billion to fight the drug gangs in their home countries. In Colombia, for example, the United States spent more than \$6 billion, while coca cultivation increased and trafficking moved to Mexico—and the violence along with it.
- \$33 billion in marketing "Just Say No"-style messages to America's youth and other prevention programs. High school students report the same rates of illegal drug use as they did in 1970, and the Centers for Disease Control and Prevention says drug overdoses have "risen steadily" since the early 1970s to more than 20,000 last year.
- \$49 billion for law enforcement along America's borders to cut off the flow of illegal drugs. This year, 25 million Americans will snort, swallow, inject and smoke illicit drugs, about 10 million more than in 1970, with the bulk of those drugs imported from Mexico.
- \$121 billion to arrest more than 37 million nonviolent drug offenders, about 10 million of them for possession of marijuana. Studies show that jail time tends to increase drug abuse.
- \$450 billion to lock those people up in federal prisons alone. Last year, half of all federal prisoners in the United States were serving sentences for drug offenses.

some astounding statistics.⁹⁹ The Drug Policy Alliance reported in 2015 that:

The U.S. has less than 5 percent of the world's population, but nearly 25 percent of the world's prison population. Half of all people in federal prison, and nearly 20 percent of those in local or state prison, are incarcerated for nothing more than a drug law violation. Tens of millions of more people have a drug conviction that makes finding employment and housing more difficult, reduces access to school loans and other public benefits, and in some states bars them from voting.¹⁰⁰

These negative statistics do not even touch on how the racial caste was redesigned through the War on Drugs.¹⁰¹ There is no research to support a correlation between increased drug control spending and lower addiction rates¹⁰²

President Barack Obama was credited as the first president since the War on Drugs to promote treatment of drug abuse as a public health issue.¹⁰³ However, in 2011, President Obama requested \$15.5 billion for the drug control, with twice as much money going to the criminal justice systems than treatment and prevention.¹⁰⁴ In 2017, United States Attorney General Sessions reversed course and launched what the media has dubbed the War on Drugs 2.0.¹⁰⁵ Sessions sent a memorandum to federal prosecutors across the country directing them to “charge and pursue the most serious, readily provable offense in all cases. . . . By definition, the most serious offenses are those that carry the most substantial guidelines sentence, including mandatory

⁹⁹ See *The Scandal-Ridden DEA: Everything You Need to Know*, DRUG POLICY ALLIANCE (Apr. 2015), https://www.drugpolicy.org/sites/default/files/DEA_Scandals_Everything_You_Need_to_Know_Drug_Policy_Alliance.pdf (discussing drug arrest statistics).

¹⁰⁰ *Id.*

¹⁰¹ MICHELLE ALEXANDER, *THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS* 55–56 (The New Press 2012).

¹⁰² See Serena Dai, *A Chart That Says the War on Drugs Isn't Working*, THE ATLANTIC (Oct. 12, 2012), <https://www.theatlantic.com/national/archive/2012/10/chart-says-war-drugs-isnt-working/322592/> (asserting that the War on Drugs has not affected the country's drug addiction rate).

¹⁰³ Martha Mendoza, *U.S. Drug War Has Met None of its Goals*, NBC NEWS (May 13, 2010), http://www.nbcnews.com/id/37134751/ns/us_news-security/print/1/displaymode/1098/.

¹⁰⁴ *Id.*

¹⁰⁵ Keegan Hamilton, *Jeff Sessions Launches New Policy for Mandatory-Minimum Sentences*, VICE (May 12, 2017), <https://news.vice.com/story/jeff-sessions-launches-war-on-drugs-2-0-with-new-mandatory-minimum-policy>.

minimum sentences.”¹⁰⁶ If judges are forced to impose mandatory minimum sentences regardless of circumstances, many are predicting another explosion in the federal prison population similar to the 1980s.¹⁰⁷

Why does the War on Drugs matter? Because virtual reality is a reflection of reality. Dark Web marketplaces mirror themselves to legitimate marketplaces such as Amazon or eBay. These marketplaces only make money when transactions are completed. If the government takes away the demand, then these marketplaces are unlikely to grow. A researcher using the pseudonym Gwern Branwen wrote programs that archived weekly snapshots of approximately 90 cyptomarkets from December 2013 to July 2015.¹⁰⁸ Marijuana was the most popular drug sold, while MDMA or ecstasy was the most popular by value.¹⁰⁹

Sales of marijuana and MDMA, if not other drugs found on the Dark Web, should not be banned but rather regulated throughout the United States. As stated *infra*, broad legalization of marijuana is already happening throughout the country with Colorado raking in \$200 million in tax revenues in 2016.¹¹⁰ The Communications Director for Denver-based Marijuana Policy Project, Mason Tvert, said: “This money is just the tip of the iceberg. Hopefully this will be a wake-up call for the 42 states that still choose to force marijuana sales into the criminal market and forego millions of dollars in tax revenue.”¹¹¹

¹⁰⁶ Attorney General, *Memorandum for all Federal Prosecutors: Department Charging and Sentencing Policy*, OFFICE OF THE ATT’Y GEN. (May 10, 2017), <https://www.justice.gov/opa/press-release/file/965896/download>.

¹⁰⁷ Brandon E. Patterson, *The Feds Had Been Moving Away From Mass Incarceration for Years. Then Jeff Sessions Came Along*, MOTHER JONES (May 19, 2017), <http://www.motherjones.com/politics/2017/05/jeff-sessions-charging-gude-lines/>.

¹⁰⁸ *Buying Drugs Online*, *supra* note 21; Mona Zhang, *Marijuana is the Most Popular Dark Web Drug*, HIGH TIMES (July 20, 2016), <https://hightimes.com/business/marijuana-is-the-most-popular-dark-web-drug/>.

¹⁰⁹ *Buying Drugs Online*, *supra* note 21.

¹¹⁰ Trey Williams, *Marijuana Tax Revenue Hit \$200 Million in Colorado as Sales Pass \$1 Billion*, MARKETWATCH (Feb. 12, 2017), <http://www.marketwatch.com/story/marijuana-tax-revenue-hit-200-million-in-colorado-as-sales-pass-1-billion-2017-02-10>. In Colorado, marijuana revenue was \$1.3 billion in 2016 and is projected to rise to \$2.2 billion by 2021. See also *Marijuana Tax Data*, COLORADO DEP’T OF REVENUE, <https://www.colorado.gov/pacific/revenue/colorado-marijuana-tax-data> (for more state pot tax data).

¹¹¹ *Id.*; see Christopher Ingraham, *Here’s How Legal Pot Changed Colorado and Washington*, WASHINGTON POST (Oct. 13, 2016), https://www.washingtonpost.com/news/wonk/wp/2016/10/13/heres-how-legal-pot-changed-colorado-and-washington/?utm_term=.5193cb03a980 (detailing the impact of legalizing mariju

MDMA is listed as a Schedule I drug, but the United States Drug Enforcement Administration ignored the medical profession and its own administrative law judge when it prohibited this drug in the 1980s.¹¹² In the past decade, the scientific community has renewed its interest in MDMA as a treatment for post-traumatic stress disorder, with a seminal 2011 study that concluded patients who received MDMA-assisted psychotherapy experienced less severity in their symptoms.¹¹³ On November 30, 2016, the Food and Drug Administration approved a Phase III clinical trial to confirm the effectiveness of treating post-traumatic stress disorder with MDMA.¹¹⁴ FDA's approval of the drug as a "breakthrough therapy" treatment gives hope that MDMA may one day become a prescription drug.¹¹⁵

The United States government should regulate the sales of these drugs, effectively eliminating the online demand, and use the tax revenues to provide for either drug abuse treatment or invest in technologies to combat sales of more dangerous drugs remaining on the Dark Web. Bringing drug sales out of the shadows with proper regulation will ensure accurate advertising and consumer education, quality control, and customer protection in case of faulty products. The same arguments used for marijuana and MDMA can be applied to other illicit drugs with medicinal purposes.¹¹⁶ By outdated, humble estimates from Branwen's findings, the top three drugs on various marketplaces—marijuana, ecstasy, and cocaine—made up of 18.6% of Dark Web drug sales.¹¹⁷ Lowered demand equals lowered supply. If the United States government were able to lower the demand for these three drugs on the Dark Web, some smaller or niche marketplaces would go out of business, and more resources could be allocated to

ana).

¹¹² *Can MDMA be Used as Medicine or Therapy?*, DRUG POLICY ALLIANCE, <https://www.drugpolicy.org/drug-facts/can-mdma-be-used-medicine-or-therapy>, (last visited Oct. 9, 2017).

¹¹³ *Id.*

¹¹⁴ Joseph Palamar, *Ecstasy Drug Reborn as Medicine: How MDMA is Being Used to Treat Trauma*, SALON (Dec. 10, 2016), <https://www.salon.com/2016/12/10/ecstasy-drug-reborn-as-medicine-how-mdma-is-being-used-to-treat-trauma/>.

¹¹⁵ Erin Brodwin, *A 'Party Drug' Just Crossed a Major Hurdle on the Path to Being Legally Prescribed as Medicine*, BUSINESS INSIDER (Aug. 29, 2017), <http://www.businessinsider.com/ecstasy-mdma-medical-legalization-ptsd-2017-8>.

¹¹⁶ Rory Hayes, *5 Illegal Drugs with Surprising Wholesome Medical Uses*, CRACKED (Sept. 22, 2012) http://www.cracked.com/article_20023_5-illegal-drugs-with-surprisingly-wholesome-medical-uses.html.

¹¹⁷ *Buying Drugs Online*, *supra* note 21.

more heinous sales.

This article does not propose any new, radical ideas or technologies to combat the rise of the drug trade on the Dark Web. It advocates for a demand-control shift with central focus on treatment, not costly criminalization.¹¹⁸ It pushes for a sensible solution that has been argued many times during the original War on Drugs.¹¹⁹ The country that the United States should be emulating is Portugal, which decriminalized all drugs in 2001.¹²⁰ Drug abuse is actually treated as a public health issue instead of a criminal one.¹²¹ Fifteen years later, *Business Week* reports the following consequences of Portugal's revolutionary approach:

1. Drug-related HIV infections have plummeted by over 90% since 2001, according to the drug-policy think tank Transform.
2. Drug-related deaths in Portugal are the second-lowest in the European Union (hereinafter "EU"). Just three in a million people die of overdoses there, compared with the EU average of 17.3 per million.
3. The number of adults who have done drugs in the past year has decreased steadily since 2001.
4. Compared to rest of the EU, young people in Portugal now use the least amount of "legal high" drugs

¹¹⁸ See C. Peter Rydell & Susan S. Sohler Everingham, *Controlling Cocaine: Supply Versus Demand Programs*, RAND CORP.; see also Allison Schrager, *The Economic Case for the U.S. to Legalize All Drugs*, QUARTZ (Jun. 7, 2013), <https://qz.com/91642/the-economic-case-for-the-us-to-legalize-all-drugs/> ("[Criminalization costs] not only include[] law enforcement, but the violence and corruption associated with the drug trade, which undermines economic development and keeps millions in poverty.").

¹¹⁹ See, e.g., Stuart Rodger, *This UN Summit Could Finally End the War on Drugs*, VICE (Mar. 24, 2016), https://www.vice.com/en_us/article/4wbzyn/end-of-war-on-drugs-ungass

A handful of countries have experimented with alternative approaches. Portugal famously decriminalized all drugs in 2001, while Switzerland has pioneered the policy of heroin prescription, and Washington and Colorado have legalized the sale of marijuana for recreational purposes. So far, all of those schemes have, by and large, proved successful in minimizing harm and boosting local economies.

Id. See also German Lopez, *America Can End its War on Drugs. Here's How*, VOX (Apr. 25, 2016), <https://www.vox.com/2016/4/25/11445454/end-war-on-drugs>; Daniel Bier, *Legal Weed is Slowly Ending the Drug War*, NEWSWEEK (Nov. 9, 2015), <http://www.newsweek.com/legal-weed-slowly-ending-drug-war-392204> (for different, less aggressive approaches to the War on Drugs).

¹²⁰ Drake Baer, *6 Incredible Things That Happened When Portugal Decriminalized All Drugs*, BUSINESS INSIDER (Apr. 26, 2016), <http://www.businessinsider.com/what-happened-when-portugal-decriminalized-all-drugs-2016-3>.

¹²¹ *Id.*

like synthetic marijuana, which are especially dangerous.

5. The percentage of drug-related offenders in Portuguese prisons fell from 44% in 1999 to 21% in 2012.

6. The number of people in drug-treatment increased 60% from 1998 to 2011 from 23,600 to 38,000.¹²²

Instead of starting the War on Drugs 2.0, or War on Drugs 2.1 on the Dark Web, the United States government should put an official end to the War on Drugs series. While this recommendation seems naïve in light of the never-ending drama that is modern day politics, it actually might be the most defensible approach because it has never been proven wrong before in American history.

Legalizing drugs would simultaneously reduce the amount of crime and raise the quality of law enforcement. Can you conceive of any other measure that would accomplish so much to promote law and order? -Milton Friedman

¹²² *Id.*