

## TRANSCRIPT

# "DRUGS AND THE DARKNET: CHALLENGES AND OPPORTUNITIES"

*A conversation with Nabarun Dasgupta and Michael Gilbert*

*Moderator: Daniel Wolfe*

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## **ANNOUNCER:**

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## **DANIEL WOLFE:**

Hi, everyone, and thank you for coming. My name is Daniel Wolfe, and I direct our work at-- on harm reduction in the public health program. And I'm very pleased to welcome you to tonight's event on Drugs and the Darknet: Opportunities and Challenges for Harm Reduction.

Maybe just a few words of context in introduction. As some of you may know, the first-- transaction on the Internet was actually a drug deal. It was-- a marijuana-- exchange between-- some graduate students at Stanford and their colleagues at MIT.

And more generally, the Internets offer a relative anonymity, or at least pseudo-- pseudonymity and privacy, whether that's perceived or real has, from the start, been a critical component of its development and one of its big draws. You know, people have used it for-- to ask embarrassing questions, to procure pornography, to deliver reviews under a-- a name that they wouldn't want to put their real name to.

And when it comes to illicit drugs-- exchange of information has been as critical as the purchase of drugs themselves-- thus the thousands of posts on recipes for drugs or-- use of so-called research chemicals, the trip reports on new substances and old that you can find, the strategies for manufacture, use, and protection from harm. Some of us are old enough to

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remember-- some of the early discussion groups. I don't know-- I don't know how old everyone is, but-- I-- I remember the alt.drugs groups.

Some people have probably seen Bluelight or read it, where there are literally hundreds of thousands of posts containing information about drugs, their effects, and-- how to (NOISE) make them safer. The creation of the so-called-- Onion Router Tor in 2002, the development of-- you know, that's-- that is-- basically routes Internet traffic through thousands of relays, so it makes it very difficult to ascertain where the person is located.

The creation of anonymized or almost anonymized digital currencies like Bitcoin in 2008 that allowed people to pay and vendors to receive without being identified, without-- without any central authority or record. All of this-- took the drugs market on the Internet to a new level and-- brings us to tonight's panel.

So, Nab Dasgupta and Mike Gilbert are both experts in medicines and drugs, licit and illicit. Nab is an epidemiologist, a pharmacoepidemiologist, who has worked to reduce the adverse events associated with medicine use-- through a collaboration with state and local health departments, the pharmaceutical industry, the World Health Organization, and-- maybe perhaps most importantly for our discussion-- here tonight-- with the Harm Reduction Coalition-- which-- he is the chair of the board of.

He is a researcher at the University of North Carolina at Chapel Hill, and he has appointments at-- the Injury Prevention Research Center and the Eshelman School of Pharmacy. Mike Gilbert is a public health technologist, a phrase I have not heard before (LAUGH) tonight-- with a specialization in epidemiology and harm reduction. He's a graduate of the Harvard School of Public Health. He's published peer-reviewed papers on topics ranging from community-based Naloxone distribution to non-medical use of anti-depressants.

He has a long history of working both with harm reduction programs on the ground, whether that's in Boston or the Bay area or Portland-- but also on the design of tools for research on how and why people use drugs, a topic of particular importance and-- which really needs more attention in this age of great concern about-- America's opioid overdose, which tends to attribute-- all of the power and attention to opioids and relatively little to the people who use them.

Both Mike and Nab have for years-- looked into, and I don't want to say monitored but maybe they would, online discussions-- about sales of opioids and have designed cutting edge research tools-- to look at mainstream media and social media, and analyzed how trends in these fora interact with use on the ground, and-- how policies around drugs, drug use, and information about drugs-- interact with that use.

They are very much pharmacoepidemiological insiders. And I have to admit that when I first shared the description of the panel, that they proposed with some of my informed colleagues at OSF, they admitted that they had no idea what the description was talking about. And I think that reflects both-- the OSF-- information technology people's success in blocking us from things like the dark web. And-- if any of you are using the guest wi-fi,

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you'll notice that all access to websites with drugs in the name are also blocked. But also to how the web, and in particular the dark web-- creates these kind of microcultures and markets which may be really unknown to many people who are not part of them and are certainly-- unfamiliar to those of us who aren't used to using Tor and who basically-- you know, for whom this world has remained closed.

As our speakers tonight will show, when it comes to drugs, the dark web has come to play a large role, both in the wholesale trade. And I recommend to you their article, which is on a table in the back-- or as you enter the room. And that's called *Silicon to syringe: Cryptomarkets and disruptive innovation in opioid supply chains*.

But-- as they will also talk to us and tell us, these markets-- have a potential role to play in reducing harms and reducing harmful effects of drugs that people choose to use. So, that will be the subject of our discussion. I think we will probably learn some things at least that most of us are-- are-- are not familiar with, so I encourage you, if something is not clear-- please raise your hand. There is a blizzard of unfamiliar initials and-- and sort of new concepts-- that these guys take for granted because they're so used to working in it. And I'm very glad to welcome you-- to the-- to the podium.

## **MICHAEL GILBERT:**

Thanks. (APPLAUSE) Thank you so much. We're really excited to be here and-- share some ideas and hopefully learn some new stuff ourselves. So-- you know, we do want to start with a little bit of-- history. As Daniel mentioned-- you know, since there has been an Internet-- people have been using it to arrange-- transactions involving drugs.

Initially, that took the form of forums. You know, people were able to communicate with each other, ask questions openly that they might not sort of breach amongst their friends. And-- you know, there were a couple of decades of time when, you know, the-- these forums proliferated, specialized-- and developed policies around things like the discussion of sourcing of drugs. You know, you could talk about the drugs, but not about where to get the drugs.

And then there was the-- sort of a confluence of technologies and concepts-- in the sort of end of the first decade of the millennium around, you know, where-- tools like-- like the Tor-- the Tor network, which I'll spare the technical details, but it's-- it's a web browser that allows you to access a web server-- without them knowing your location or without your knowing their location.

Combined with peer-to-peer-- encr-- encryption technology, which let you send them a message that could only be read by the intended recipient-- along with the emergence of cryptocurrencies like Bitcoin and, you know, the others that have followed-- those sort of three fundamental technologies stacked on top of forums-- with the sort of social concept of e-commerce, you know, the willingness to send somebody money on the Internet in exchange for items that they would send to you-- sort of created the environment in which cryptomarkets or dark net markets-- first emerged.

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So, you know, the-- the role that the markets played was sort of filling a gap that hadn't been well served within some of the forums. You know, within forums, you might have people who were openly vending products-- but you know, and there would be reviews of those products.

But as, like, consumer expectations started to shift, you know, where we wanted to have, like, a-- you know, a star rating for somebody or we wanted to be able to browse listings-- wanted to be able to see prices, maybe make transactions, have like-- an account-- and sort of use all of the tools that our sort of new, sort of digital social networks allowed-- this sort of new concept of the cryptomarket-- was born.

And so rather, again, than describing in, like, excruciating technical detail how these things work-- we want to do a little bit of an exercise-- for which we're just gonna-- we're gonna-- essentially role play through how these markets work.

'Cause I think understanding the mechanics of a transaction-- is the best way to understand-- each stakeholder's relationship to these system-- opportunities for disruption in the system. And then we can talk about what-- what's really happened when those disruptions occur. So-- I've got a little baggie here of-- this is gonna stand in for some esoteric substance. And I've got--

## **DANIEL WOLFE:**

It's not real.

## **MICHAEL GILBERT:**

It's not real. (LAUGH) And-- this is also not real. The-- well, it is real, but it's an Academic Pentathlon medal-- medal from middle school, which is gonna stand in for a Bitcoin. (LAUGHTER) And so-- we're gonna need a buyer, a vendor, a market, and a mail carrier. Do I have any volunteers? So-- would you like to be our buyer?

## **MALE VOICE:**

Sure.

## **MICHAEL GILBERT:**

All right. So, I'm gonna-- I'm gonna hand you this. And let's see, just based on where you're laid out, would you like to be our vendor?

## **FEMALE VOICE:**

Sure.

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## MICHAEL GILBERT:

All right, so you are in possession of this, which means you're going to be our market-- our market admin and you're gonna help us deliver the drugs.

## FEMALE VOICE:

Okay.

## MICHAEL GILBERT:

All right, great, wonderful. All right, so-- within this arrangement-- you've decided that you want to create a forum in which people can, you know, buy or sell whatever they want. You'll take a 3% commission on the sale. If people want to sell products on your market-- they'll have to give you a little bit of a vendor bond, you know, \$500 to show that they're earnest and to make sure that they don't just take a bunch of people's money and run. And so, you set up a website-- where, you know, using some sort of commodity scripts that you can, you know, get just about anywhere, essentially like an eBay clone, we'll call it. Now, you see this website and you think, "Well, hey, I've got these drugs, see, and I can-- I'd kinda like some money-- you know, for them."

And so, you would approach the market and you'd say, "I'd like to put a listing on the market." You'd pay your vendor bond, right, and-- you'd put up some listings. Say, you know-- even let's just call it a single listing for eight grams of that powder.

Now you're interested in some powder, right? Right, so-- at this point, you have gone-- you understand that there is this market. And you know that if you want to get anything from the market, you're going to have to get some Bitcoin, some Ethereum, some Monero, some name your cryptocurrency. And so, you did it. You know, you-- probably took some precautions to make sure your name wasn't attached to it.

You know, you didn't, like, go on Coinbase and put in your credit card and get the money. Or if you did, you probably went through some other, you know, tools to separate your identity from, you know, the providence and use of that coin. And so, now you've got coin and you've got drugs and you've got a market. So, what you're gonna do is you're gonna approach the market and you're gonna say, "I'd like some drugs, please." And I-- from this person.

And what you're gonna do is you're going to give the market your coin. And so, you can actually, yes, phy-- physically give the market your coin. And now, the market is gonna tell the vendor-- "Hey, this guy wants some of those drugs." And-- you know, you might send your address in an encrypted format to the vendor there. The vendor is going to then-- package them up ever so stealthily-- and hand them to the mail carrier, who will, unbeknownst to the mail carrier likely, who knows?-- deliver them to our buyer.

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Now, you would tell the market, "I got my drugs. Great," at which point the market releases the coin to the vendor. End scene. So-- that is a sort of normative process for how cryptomarkets would work. The market acts as an escrow-- and as sort of-- an intermediary so that the vendor doesn't have to go to the trouble of, say, creating their own website. The buyer is insulated from just sending their money to the vendor directly because there's this-- intermediary process, right.

(FEMALE VOICE: UNINTEL)

## **MICHAEL GILBERT:**

And the post office gets paid just like they do for any other package, right. And occasionally a package opens up and the mail man-- the mail person, you know, sees what's inside and maybe they-- you know, they catch a whiff of it or whatever.

## **FEMALE VOICE:**

And then there's the ranking system.

## **MICHAEL GILBERT:**

Yeah. Yeah. So, yes, exactly, importantly. So, now you've received these products and you either loved 'em, hated 'em. Whatever you think about them, you put that out onto the forum, say. You know, you might write a review. And you might-- put a review specifically on the market.

And so, this vendor is gonna develop a reputation. And now you as a buyer, you're also gonna develop a reputation. So, you know, on your profile, the vendor might say, "Yes, this person sent me their message-- sent me their address in an encrypted format. They, you know, promptly finalized payment when-- upon receipt of the product."

And so there's this sort of-- reputation function that-- that operates for all parties. There's also a reputation function for the market, 'cause you're not the only-- you're maybe not the only market. You know, at-- you know, at any given time there are any number of markets. You know, early on, there was the Silk Road and a couple of others. As each successive market was closed for some reasons that we're about to explore-- the-- you know, new ones popped up and competed for market share. And some of them were deemed more or less trustworthy-- you know, than others.

(FEMALE VOICE: UNINTEL)

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**MICHAEL GILBERT:**

Yeah, precisely. So, the-- the market acts as the central f-- the central sort of forum, but I'm not using that as-- in the sense of a discussion forum-- in which the-- through which the vendor and the buyer-- can communicate.

**NABARUN DASGUPTA:**

Yeah, and the markets could be language specific. So, if you were only a Russian speaker, then you could have a Russian-only market. And then the total time for this transaction could be on the order of a day. You know, you can go from buying Bitcoin to placing the order, having it overnight shipped, and you would have it the next day.

**MICHAEL GILBERT:**

Uh-huh (AFFIRM). And you know, similarly the market could decide, "We're only gonna be a market for-- cannabis and psychedelics." Or, "We are only gonna be a market for vendors who have proven their reliability through prior experience." And so, you may have some policies that, you know, that you implement that might change the way that people, you know, select your market versus-- versus another.

**MALE VOICE:**

What happens if the drugs get lost in the mail?

**MICHAEL GILBERT:**

Well, so, let's run a little scenario. All right, so-- let's reset. Let's reset just so that everybody is clear on their-- just so we can keep our roles straight. All right, so, now the market is up. You would place an order. So, let's say the coin goes to the--

(FEMALE VOICE: UNINTEL)

**MICHAEL GILBERT:**

Yeah, the coin goes to the market. Now, let's-- yeah, now let's say-- the vendor, you know, the market communicates to the vendor, "Hey, this guy wants some drugs." The product goes into the mail and then the mail carrier is delivering them and, "Oops, I'm a cop and I caught you." And now we have a dispute. How do we know that you sent the drug? How do we know that you sent the product?

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**MALE VOICE:**

Shipping-- shipping number.

**MICHAEL GILBERT:**

If there was a shipping number involved, that would be great.

**MALE VOICE:**

A receipt?

**MICHAEL GILBERT:**

Getting-- getting a shipping number is a little bit of a challenging prospect if you're trying to keep your identity clear from the United States Postal Service. There are means, you know, by which this can be done, but this could be-- this could be a challenge.

And how is this-- indistinguishable-- how is this distinguishable from a case in which I didn't intervene in it and you got them and just said they never showed up? So, in this case, we have an arbiter. You have a mediator who will, say, listen to either side. If you can provide a shipping label and you can say, "Check the tracking on this. It left this place at this time and got there," then maybe that's some evidence.

Maybe you sent an empty package, you know, or you know, there-- there are any number of things that, you know, that could have happened. Or maybe you just have a dispute with the quality of the product. You know, "Oh, they said it was really strong and it's not."

Well, you know, that's another dispute that you're gonna have to now judge on. You're gonna have to decide who is gonna hold that coin. And you can decide any number of ways. And those have been responded to in a couple of ways that we'll discuss-- a little later. But let's do one more scenario, all right? So, here, reset real quick.

**DANIEL WOLFE:**

And for those who are standing, you're welcome to stand, but there are seats up in front and we won't penalize you if you come and take them.

**MICHAEL GILBERT:**

All right, so starting again from the top, you'd like to make an order. So, you're gonna give this person-- your-- your coin. And now--



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**FEMALE VOICE:**

This is all online, right?

**MICHAEL GILBERT:**

This is all online. This is all through-- an e-commerce website that looks like any other shop that you might buy on, like an eBay or an Etsy or a w-- what have you.

**FEMALE VOICE:**

So, no verification (UNINTEL).

**MICHAEL GILBERT:**

No.

(FEMALE VOICE: UNINTEL)

**MICHAEL GILBERT:**

They are an online persona. They are a name-- and, you know, in some dimensions the Internet, you know-- a network location. Now, say-- at this point you've-- you're holding that coin. Now, this isn't the only transaction that happened today and there's a lag between the time when, you know, the person sends you the coin and the vendor sends the product.

And say, in that time, you've amassed-- you know, 40,000 Bitcoin. And Bitcoin are worth about \$11,000 today each. And so, you might decide, "I'm out. Like, thanks, everybody. I'm done." And you've been holding that coin and so, you know, you-- you're holding coin and you have control over it because you are the trusted arbiter, you know, in this interaction. And now, and you know, as has happened in past markets, you have had-- like a market scam-- in which you get away with all the money and everybody else is bummed. Similarly-- you could have a situation in which-- in which you, as a vendor-- have a policy that says, "For newer buyers-- I'm going to insist that you finalize early. I don't necessarily trust your judgment of whether-- your attestation of having received these products or your evaluation of these products."

I want-- you want to make sure that you get paid when the product leaves your hands, you know, because, you know, you can't trust everybody on the Internet. And-- you know-- but in this-- in this situation, say-- so now you've asked them to finalize early. And you, being a relatively new person to the-- to these markets, say, "Okay. I'll-- you know, I'll-- I'll agree. I really want the product. I can't find it in my area. You know, I'm-- I'm willing-- I'm willing to do this."

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And now, he's not the only person who has finalized early. And now you're holding all the coin and the product and now you can, you know, run off into the-- you know, into the-- into the night. And you are-- and which would be referred to as a vendor scam. Of course, there's another sort of looming issue here-- which is, you know, what happens if we back up just a little bit, where the market is still holding the coin?

And-- I've been buying things a whole bunch on the market and I've been sort of watching the, you know, patterns of network traffic coming through the market. I've been-- you know, studying the sort of-- behaviors of the market administrators online. I've been doing penetration testing and finding vulnerabilities in your site where I can inject code and find out the network location where you're operating and maybe where you're accessing, you know, that server from.

And I can-- and as has happened a number of times, I might just come and arrest the market operator, in which case if there are coin and drugs in play, again, everybody's real bummed and the market is gone. And they're-- and then-- then there will be another. So, rinse and repeat. Each time a market goes down, several new markets emerge and people just keep playing the game over and over.

But there are innovations in the game. Like, there are-- technological tools-- that can help to solve some of these problems. One of the problem-- one of the problems might be your concern about connecting this currency and the acquisition of the currency to your name. One of your problems might be having all this cryptocurrency and wanting some cash, and how do you get it out of a digital format and into bills in your hand.

There are coins that don't use, you know, perfectly and openly transparent blockchains where, you know, you can't trace each transaction from wallet to wallet to wallet as one can with Bitcoin. So, there are innovations in terms of new-- cryptocurrencies that help to protect the transition of cash into crypto and crypto back into cash.

There are multi-signed transactions. Like, say instead of you having all the power in this situation to move the funds from the buyer to the vendor, you could have a situation in which two of the three of you have to agree to finalize the transaction, in which case if the market gets taken out of the picture, the buyer and the vendor can still reconcile between themselves. If the vendor has a problem, the two of you can finalize as well.

So, you know, those are a couple of, you know, the-- a couple of, like, technological innovations, you know, that help with these things. Now, there-- there's also another-- these-- as I said, these markets are vulnerable. They're pretty-- they're fairly complex. Sometimes people set them up without understanding all of the ins and outs of the technology. And so, at a certain point, once you two have done business enough, well maybe you just cut the market out of it and you just say, "Okay, I trust you, vendor."

"I've purchased from you a number of times. You seem to be a reputable person." And now you just have a decentralized system in which you-- don't have to go through the markets. Now you're just sending encrypted emails, say, from one account to another, cutting the

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markets out entirely, and not in-- not mingling your transactions with this high volume of people transacting in any variety of products at any scale.

So, are there-- are there-- are there any other scenarios that we want to run? I think that's a pretty good-- synopsis of the various different-- of how it should go, how it has gone, and what people have kind of done to try and mitigate the-- the risks for each stakeholder in that-- in that process. All right, on-- on-- on to the harm reduction parts. (LAUGHTER)

## **MALE VOICE:**

Thank you.

## **MICHAEL GILBERT:**

Yeah, here, I'll take back the coin and the drugs--

## **DANIEL WOLFE:**

Thank you for participating.

(APPLAUSE)

(OFF-MIC CONVERSATION)

## **NABARUN DASGUPTA:**

So, when we are-- so then the questions-- so, there's a lot of questions about how harm reduction can operate-- within this sphere, right? So, there are-- there's a lot of, you know, there's a lot of hype about the scope of what cryptomarkets can do for harm reduction and there's a lot of promise as well.

So, some of the-- some of the-- the most important things are-- are being able to have quality and safety-- checks on the product. So, a lot of the markets and-- and ancillary-- websites and other services will allow for checking of the quality and the potency, the purity, contamination and other-- elements of what is being sold on the markets. And there are ways to feed that back into the market so there is some kind of verification of what's in a bag. And that seems like a very important and central way to reduce the harms of-- of illicitly manufactured drugs.

## **MICHAEL GILBERT:**

Yeah. And so, you know, this-- that concept of, you know, product quality, safety-- so transparency in the transaction-- and sort of mutual and peer support amongst the people who are interacting in the market is important. And I'm gonna offer a couple of-- points, not

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to refute, but to sort of temper-- that aim-- or-- how we understand the sort of harm reduction through the improvement of quality and informed consumption.

One of those would be that, you know, despite this, counterfeiting is fairly rampant on the markets. There's a lot of buyer beware mentality where, you know, people are selling something where the top of the title says, "These are Roxy 30s," and then among the-- you know, in smaller print below, in a big block of text it says, "These have .8 milligrams of Fentanyl per pill. You know, they're not actually Oxycodone. They're not actually what they are."

So-- there's a little bit of-- a literacy element, like a digital literacy-- and a, like, you know, like-- s-- conventional literacy, I guess-- element of knowing where to look and being able to interpret the content-- that one finds there.

There's also a little bit of an issue, like, say you are able to buy, you know, pure potent drugs. You know, maybe, you know, the-- the heroin that's available in your area is saturated with Fentanyl. Like, you know, you can't find a bag of diamorphine or diacetylmorphine anywhere in your region.

Being-- being able to access new drug, you know, that drug through the markets might be important. But there's, you know, there's-- one of the challenges to that is now you've got access to all of these drugs. Yes, you can get the drug that you want-- but-- to cite the name-- one of my favorite academic publication names ever, you know, what if you live above a bakery and you love cakes? You know, what if, like, and there's-- so, which explored the sort of natural history of people's use of these-- sites-- in which they describe-- the sort of branching out of their drug use to use drugs they might not otherwise have access to-- that they might not have peer support networks.

Like these drugs might not be familiar to them or the people in their area. They might-- their friends might not-- know how to respond to somebody who's having-- you know, a crisis or an emergency just because they're-- they're either new or unfamiliar in the context.

## **NABARUN DASGUPTA:**

But what if-- but what if, in that process, you find something that's maybe less potent, maybe gives you more functional ability that you were looking for?

## **MICHAEL GILBERT:**

Yeah.

## **NABARUN DASGUPTA:**

And maybe that's a good thing.

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**MICHAEL GILBERT:**

Yeah, well, you know, if-- you know, if you're looking for ketamine, but you can't really find it and you find methoxetamine, and you're like, "Oh, this is a little milder, a little longer acting. And it has, like, a pleasant, sweet sensation in my nose. Maybe that's superior." And then, you know, when it comes to the, you know, the-- the attestation of purity, these are also gameable systems. So, you know, we're talking drug checking here, where somebody submits a-- say, a sample to a-- to a lab that runs GCMS and, you know, does-- a sort of formal-- quantitation and qualification of what's in that sample.

On-- if I'm the vendor, I can send a sample of known high quality-- submit that to the lab and then say, "Here are the results of my product," when the stuff that I'm actually shipping isn't that. There are an-- there are, you know, a number of other-- sort of problems that have yet to be addressed within that sort of reputation-information economy-- that I think probably should be addressed-- and that are explicitly identified by the people operating most pill testing-- or most drug checking services, where they say, "These results are applicable only to the sample submitted. They should not-- they're not extensible to every-- to the rest of this batch. They're not extensible to the rest of this vendor's product. They're not extend-- extensible to other things that look, smell, or are priced like this."

**NABARUN DASGUPTA:**

Okay, okay, I believe all that. Fine. But these drugs are good. These'll work. These are fine. But you know what, no one gets stabbed on the Internet. And I think interpersonal violence is probably one of the most important ways that harms are reduced by buying drugs online.

**MICHAEL GILBERT:**

Yeah, that's true. And I also usually don't give my coke dealer my address.

**NABARUN DASGUPTA:**

In New York, you do.

**MICHAEL GILBERT:**

Well, (LAUGHTER) yeah, yeah, delivery you do, okay, fair enough. Yeah-- so, the-- you know, the-- the counter-- you know, the counterpoint to that would be-- you know, so people are putting their wellness at risk in different ways-- but not necessarily eliminating the risk. They're shifting the risk-- to one of-- if I have a dispute with this vendor and they have my address, I can, like, they could SWAT-- they could SWAT me. You know, they could call in a hostage situation at my address or they could t-- you know, they could-- call in a tip to the local drug hotline and say, "You just might find, you know, 20,000 Xanax in this person's shoe box, you know."

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Which generally the person who you're buying from in a face-to-face market, you know, they might-- they might not have access to that information. And the other counterpoint that I would say is that does mitigate the risk at the buyer level-- but in upstream production markets...

So, the fact that I'm not gonna get, you know-- robbed or-- you know, jumped or whatever in the process of going to buy drugs doesn't change the fact that-- you know, p-- that farms are getting burned in Bolivia. And so, we can-- you know, re-- reduce the risk for ourselves-- which is important-- I think, but maybe not in other parts of the supply chain.

## **NABARUN DASGUPTA:**

So, but maybe, you know, you talked about the candy-- the-- the bakery, right? And there are lots of-- you can buy other things on the dark nets. You can buy stolen art, you can buy fake prescriptions, guns. You can buy pretty much any physical thing that can be shipped in the mail.

So, there are places where you can't get Naloxone for reverses overdoses, you can't get buprenorphine or methadone for drug treatment. There is-- there's-- you can't-- I-- I think an example-- that we were talkin' about earlier, in China there are-- there's no access to hepatitis-C medications, but 100,000 people in China have bought hepatitis-C medications online and taken it to treat themselves. So, getting access to medications that are hard to get is a great thing that these markets can provide.

## **MICHAEL GILBERT:**

Yeah, and that's absolutely wonderful. I love to see when people are getting-- Naloxone in communities that don't otherwise have it, when people have access to, say, contraceptives or-- you know, steroids or hormones they might otherwise not be able to access in their community.

One-- one of my primary concerns there is-- not necessarily the supply chain, but maybe the cold chain or the light chain or the proper-- storage of those substances through that process, or their authenticity-- in that, you know, through-- through that chain.

Or they might not, you know, like-- some of these products are less stable than others. So, perhaps-- perhaps if it's a pill, and if that pill, it was actually made by the person who claims to have made it and actually contains the active ingredient that it claims to contain, then that's an absolutely wonderful situation, I think, where people can access means for wellness that they might not otherwise be able to-- to get.

## **NABARUN DASGUPTA:**

And I think that's-- and especially when we're trying to-- when we're thinking of where the dark nets can go beyond the kind of user base in Europe and North America and a hand--

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you know, pockets of other places using the-- using these conduits for money and product for-- bringing medicines that have-- that are needed for other life-saving purposes-- in other parts of the world where those medicines are not available. This could be a viable-- alternative to consider.

## **MICHAEL GILBERT:**

So-- but can-- well, can I pose one problem or question? You know, all right--

## **NABARUN DASGUPTA:**

Sure.

## **MICHAEL GILBERT:**

So, you know-- working in direct services-- you know, say in-- you know, be it in-- in San Francisco or in Portland or in Boston-- you know, occasionally I'll have someone walk up to me and show me their phone and say, like, "Hey, look at this listing. Isn't this cool?"

And you know, they're-- they're looking at a market, you know, on their-- on their smartphone. But you know-- what is the, you know, like, what-- what's the real impact of these markets, like, you know, for me in that role-- you know, when I'm, you know, doing direct services and trying to help people face to face?

## **NABARUN DASGUPTA:**

Yeah, and I-- I think that plays out in different ways in different s-- different locations, right. So, this is a great place to get knowledge about what drugs are out there, what forms they're in. You can find out if a particular, you know, if someone comes up to you with a pill that doesn't look right, you know, the edges are not sharp and maybe the writing on it looks a little funky.

You can find that particular pill online. You might find discussions saying, look, "Oh, yeah, this counterfeit version of this pill is being circulated in this community or in this city or in this region." And you can-- yeah, you know, you can line it up and look at-- and-- and see-- kind of identify things that way.

The people who are working in direct ac-- direct service provision have also kind of encountered-- encountered people who are selling-- product online who are looking for, say, Naloxone to package with a-- with heroin that they're shipping. And a--

## **MICHAEL GILBERT:**

Customers who bought this also liked that?

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## **NABARUN DASGUPTA:**

Yes, (LAUGHTER) exactly. You may also want to consider. And some of it is packaged with the heroin or the Fentanyl or the pills, and some of it is you have to-- you have to buy the Naloxone separately. And-- those are, you know, specific things that do happen and, you know-- throughout the country.

## **DANIEL WOLFE:**

So, look, there's a lot to say. And m-- maybe at this point we should just stop and open it up to some questions. And maybe let's take a few questions and then we'll try to group them. And if you wouldn't mind-- speaking into the microphone and-- the-- the-- it-- there's-- it's here on a stand.

(OFF-MIC CONVERSATION)

## **DANIEL WOLFE:**

Okay, so, yeah, if you wouldn't mind approaching the microphone. And-- also if I could ask people to keep their questions relatively brief since I know our speakers have a lot to say and there may be a number of questions.

## **QUESTION (MALE VOICE):**

Yeah, my question is I'm very surprised-- with-- your tone. You are very sympathetic to these markets. Do you get paid by these markets or these drug makers for all the publicity you are making tonight?

## **MICHAEL GILBERT:**

No, not at all. You know, if I could get paid in crypto, it would be a lot better than-- than cash. So, I think my tone-- is a little bit irreverent. And I think that largely comes from an experience of-- like, understanding that-- I kind of see the markets as an inevitability.

Like-- the combi-- confluence of technologies and e-- and sort of consumer expectations that we have led us to a point where people want to be able to buy something. We have the mean-- we have the means to create these trans-- these sort of markets.

And attempts to stop the markets from happening-- have been, I think, you know, futile and counterproductive. You know, the markets have been sort of hardened and strengthened over time in terms of the development of new technologies. And so, my take on them is not one of, like, you know, pearl-clutching horror. It's one of, like, trying to be constructive and engage the people who buy, use, sell, and make drugs in a conversation about how to do that in a way that harms people the least, or not at all, or benefits them.



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## **NABARUN DASGUPTA:**

And I think every-- every major interdiction effort has led-- you know, there have been major interdiction efforts that have led to the shutdown of markets and to the disruption of supply chain-- and to the supply. And those things have-- have in turn kind of led to more encryption, more hidden services, more kind of pushing things underground. And at the end of the day, is that the right cycle to address the fundamental reasons why people are using drugs and what the harms are? I think that's part of the question that's worth exploring.

## **DANIEL WOLFE:**

Yes, please. And panelists, don't respond to each question, 'cause let's take a bunch and then we'll respond.

## **JOANNE CHETA:**

Hi. Thanks for all that. My name is Joanne Cheta (PH). I teach at Columbia University. I think that people are being prosecuted for crimes of this nature and I just wonder if you could say something about the nature of the law and whether there are legislative developments that we should expect.

It seems to me that the prosecutions have called on a number of different bodies of criminal law. And-- is this going to help in-- is-- is this going to-- eventually to have the effect of tightening drug laws at a moment when we hope for a reform?

## **SHEILA VICARIA:**

Hi, I'm Sheila Vicaria (PH). So, my question is (SIGH) there's-- there's a lot of benefits to-- to this kind of a market, right? You can be an informed consumer. There's a degree of possible safety and protection-- but it's also exclusive, right, in terms of access.

And one of the things that we're trying to reconcile in cannabis legalization is the same thing, right. It incentivizes high-- high stakes players, people who have a lot of money and resources and the ability to protect themselves and insulate themselves. So, how do we talk about equality in access and information and being a knowledgeable consumer and those kinds of things?

## **DANIEL WOLFE:**

Thanks.

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## ASH CALB:

I'm Ash Calb (PH). I'm, disclaimer, one of the founders of a company that hunts bad bot-nets on the Internet. So, the fundamental feature--

## DANIEL WOLFE:

Sorry, Ash, could you just explain something about what that means for those of us who don't understand?

## ASH CALB:

I-- I-- I'm one of the co-founders of White Ops. When you hear people in the news talk about Russian bot-nets spamming people's accounts, we're the ones that can tell they aren't real people. But part of what's allowed that economic sector-- economic sector to explode over the past five or six years is the fact that the dark net market-- marketplaces allow people to have reputation without identity.

And that's, for me, the fundamental characteristic of-- a dark net marketplace. You can have like an eBay score without having it linked to a personal identity, which when there are regulatory and legal roadblocks to transactions that absolutely should happen is great, but it also is the same space in which transactions that, and we can all put our moral barometer wherever we want to, (COUGH) but at some point probably most of the people in the room don't want people to be able to do-- transact in plastic explosive-- explosives-- anonymously with cryptocurrency.

So-- I-- I-- I guess my question is, as somebody whose job is-- is somewhat to regulate this market-- and not regulate it, but regulate it in terms of the companies that provide access to it, how do I, without subscribing to any gen-- general-- morality, any legal morality, any external value system, how do I figure out what is something I should care about as bad-- and what I shouldn't care about? Because hearing the example of buy this and also the heroin, right, like we-- it's-- it's a good anecdote because we all recognize that that's bad.

## MICHAEL GILBERT:

(MAKES NOISE)

## ASH CALB:

But-- but like-- or-- or-- okay, no-- I'm with you there, too. (LAUGHTER) I'm not allowed to have political positions. But I am in a role where I actually have to tell large Internet companies which things to allow and which things not to allow. And I'm the major policy-maker in that position and I don't know what to do, 'cause I-- I want the extra-governmental marketplaces to exist. I also don't want to be part of the problem.

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(OFF-MIC CONVERSATION)

## **DANIEL WOLFE:**

So, we have-- yeah-- equality of information and-- and access. We have the question of laws, and we have the question of an unregulated, like, quality control and ethics in an unregulated marketplace and, like what do we do.

## **MICHAEL GILBERT:**

Yeah, there's-- there-- there's a lot to chew on there.

## **QUESTION (MALE VOICE):**

But it's-- it's gonna be my call-- (UNINTEL) if it's not something that we all decide (UNINTEL).

## **MICHAEL GILBERT:**

Yeah, well, I mean-- all-- yeah, we'll-- we'll talk about it. So, from-- from the prosecution standpoint and, like, the-- the legal environment-- I-- I definitely want to touch on that real quick. The-- you know, so people have definitely been prosecuted for, you know, for-- vending products on these markets.

There have been-- you know, manslaughter and, you know, murder charges that have been brought against people who have supplied products that have resulted in overdose deaths. There are-- you know, there are also people who are living in cages because they've sold drugs on the Internet. And that-- that happens as well.

What-- what I see as the most interesting sort of implication for sort of law and public policy-- is the opportunity to evaluate the effects of interventions. And maybe this plays across both-- you know, both of your-- both the first and the third questions. When we-- say, see that somebody is sell-- you know, that there's this new product on the market and there's a concerted effort to try and stop that-- the markets, you know, in their transparency offer an opportunity-- for us to see what happens.

Are there substitutions of an old product for a new market-- you know, for a new product? You know, so, when-- when a new, you know, we just saw a couple of new-- substances added to the, you know, to Schedule I. Are those going to disappear on the markets? Are they just going to be relabeled on the markets?

And so, I see it as-- as a useful tool for the evaluation of interventions-- you know, to understand, like, do these things actually move the needle? Like, are you just chasing, you know, the bots down a rabbit hole-- with no actual effect on public health and safety? Or-- you know, are-- and are we doing the same in our, you know, in our federal drug policies?

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And-- so I-- I think, as a-- as a-- as an opportunity to sort of investigate and challenge-- the sort of intents of-- public policy versus their effects-- that's where they'll be most useful.

## **NABARUN DASGUPTA:**

All right. And at the kind of intersection of Joanne's question and Sheila's question, the-- the-- the transactions that are happening online are a miniscule fraction of all the drug transactions that are happening at any given point, in any point in the world. And I won't even begin to try to give you how many decimal points and p-- after the percent that would be.

## **FEMALE VOICE:**

For the moment.

## **NABARUN DASGUPTA:**

For the moment. For the moment. And the-- and-- and so-- but the point being that the interaction between the kind of established drug markets, the established cartels, the established interdiction efforts and-- surveillance methods with the cryptomarkets, like no-- there's the regulations and laws around the cryptomarkets are by, you know, almost-- are-- are a small subset almost so heavily informed by the bigger body of-- regulation and policing that it's almost inseparable from them.

An example of this would be in China. So, there were research-- so, one type of-- cryptomarket vendor is called a research chemical manufacturer. So, these are-- these are the actual factories, physical plants where the raw materials that are not controlled substances get turned into controlled substances and sold as powder.

And those-- research chemicals are used for, well, research purposes by a lot of legitimate industries. If you're making a new pesticide or something like that, right. But-- but those also have been shipping-- different (NOISE) configurations of things that look like Fentanyl to the United States, right?

So, this was something that was pretty well documented by U.S., South American, Canadian authorities, and kind of brought to the attention of Chinese authorities. And the Chinese authorities had a substantial crackdown on-- some of the-- some of the known research chemical manufacturers.

And that led to that particular chemical structure-- of-- of the Fentanyl-- of a Fentanyl analog being kind of-- disappearing from the market and being replaced by two or three other-- similar but slightly different-- chemical structures. And the-- the manufacturers closed down shop in this province and moved to this province and opened up again. And we can actually trace all of this online.

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And so, the-- so, I think there-- so, you know, so, in-- in those kinds of situations, it wasn't just that the Fentanyl was coming from the cryptomarket-- was being sold online, but it was also being sold through a cartel-based distribution and kind of traditional systems. So, I think there is this constant interplay between the two that's gonna continue.

## **DANIEL WOLFE:**

Michael, let me press you a little bit, and it-- it-- it picks up on Ash's question, but even on the first question, right, which is, you know, you can buy-- you know, obviously child sexual exploitation and, you know, i-- i-- you know, explosives and these things-- you know, one of the arguments, for example, for cannabis regulation, say, it has been segmenting the market and basically allowing people to buy a less harmful substance and not-- not-- basically moving them out of the bakery.

Saying, like, okay, we're only gonna sell bread, not cake, and-- that will be better for you. Is there-- is-- is there, like, an ethics? Like, are some companies better than others? Are some-- is there some moral system that some people have articulated that says, "We're gonna do this, but we're not gonna do that"? Like, Sheila was playing the market, there are a lot of different ways to play it, right? Are some people playing it-- more morally than others?

## **MICHAEL GILBERT:**

Yeah, they-- they have-- they have different-- they have different policies and different motivations for those policies. So, you know, some of the markets say no weapons. And you know, no-- child sexual exploitation materials. And some of them do that because they feel that those are morally abhorrent.

And some of them do that because they don't want to catch the attention of the people who are out hunting the people who do those things. So, sometimes it's out of self-preservation and sometimes it's out of-- a sort of value position or principle or virtue-- so, you know, certainly.

And you know, there are also places that-- you know, some markets cap the volumes of a product that can be transacted. So, rather than being able to buy, you know, kilos of alprazolam, you can only buy-- you know, a mere 500 grams. And you know, with the intention to, you know, being-- that they don't want to flatten the supply chain too much. They don't want to make it too easy for, you know-- a random person to, you know, start moving kilos of product through their community.

## **QUESTION (MALE VOICE):**

My biggest concern is that if you could see through all the sock puppets to--

(OFF-MIC CONVERSATION)

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**MICHAEL GILBERT:**

Can I-- can I speak to another element of what Sheila was saying?

**DANIEL WOLFE:**

Yeah.

**MICHAEL GILBERT:**

I-- I-- I think that's really important. The-- the-- the question of access. So-- a lot of times, you know, when I'm thinking about these, and I-- I-- like, I was initially introduced to these markets through, like, bourgeois technophilic drug exploration, you know. And like, that's-- yeah, that-- that's where I'm coming from. But--

**DANIEL WOLFE:**

That's how you roll?

**MICHAEL GILBERT:**

Yeah. (LAUGHTER) Quite literally. But-- the-- but-- but that-- but that's not-- that is-- that is, I think, the sort of-- well, I wouldn't seek to characterize the average person because other studies have done that. There's some great articles.

There's a 2016-- special edition of the *International Journal of Drug Policy*-- that's all about cryptomarkets. And there's an excellent-- research-- you know-- like, interviews that have been done with people who use cryptomarkets about who they are and why they're using them and what they're doing.

But you know, on the other hand-- the-- you know, cryptomarkets aren't just retail operations. And I think the-- framing them as supply chains-- what Nab and I tried to do in-- in our recent paper was to frame them as supply chains, and I think that has important implication when it comes to access. If cryptomarkets have protective factors, then yes, there is a certain amount of digital literacy required to access them.

But people are using drugs that flow through cryptomarkets without their knowledge many times. Like-- you know, there was-- there was-- there's a story in the paper about somebody who was importing Fentanyl from China to south-- to-- to Salt Lake City, where they were pressing it into counterfeit Roxys-- and then sending them, you know, 10,000 at a time, to a person in Portland, Oregon, who is selling them on the streets of Portland.

When I moved to Portland a couple of months ago, I was given the impression by some people that there was not a Fentanyl problem in Portland. This just simply wasn't a thing that

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was happening because, A, maybe those people weren't coming into the exchange programs-- and B, they weren't testing for Fentanyl in their medical examiner reports.

But what-- that's all to say that, like, the drugs that flow through the markets-- and the people who use them and are impacted by them-- shouldn't be conflated with the people who directly purchase on the markets. And I think that-- I think that's-- an important point to make.

But also, if there were protective factors in the form of information about drugs, especially about emerging drugs and, you know, things that people can do to mitigate the risk, say, of using Fentanyl, like how to prepare a nasal spray if you don't want to be injecting every two hours or if you don't want to develop a certain tolerance of a certain rate.

The current tools that we have-- the current means that people have to do that is to pore through whatever click path they take through the Internet. And that is gonna be-- that's gonna change depending on their-- sort of their priors technologically-- and culturally. And it's gonna depend on, like, how much time they have and where they happen to go. So, I think, you know, there are opportunities around the development of tools to help people-- essentially help people to understand the wisdom of the crowd that's being-- sort of coalesced within these communities-- and translating that-- to people who n-- don't necessarily have the time or inclination to spend hours poring through drug reports on the Internet.

## **DANIEL WOLFE:**

I-- I know you have the microphone. Before you go though, I-- I want to ask if-- other people have questions, since you've already had a chance. Please.

(FEMALE VOICE: UNINTEL)

## **DANIEL WOLFE:**

There's a mic there. That's-- there's a mic right in front of you. Thanks.

## **QUESTION (FEMALE VOICE):**

I, myself, bought Valium through Internet. And-- I don't need a doctor's prescription. I just ordered and it was very cheap. It came from Pakistan or something. And there's no regulation. So, it's easy. I needed Valium, I would just order.

And so, that's what is so easy. And so young kids are putting, like, codeine in-- sweet, you know, bubbly drink and put the candy and they have a heart attack, kind of a thing. And it's happening a lot. That's why I came here. And second thing is, like, now everybody talking about why I didn't buy Bitcoin. I was like, if I bought a Bitcoin, it's not traceable, right? I

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mean, it's very hard to trace, I heard. So, if I want to buy a bunch of LSD with Bitcoin, is it possible to do it? (LAUGHTER)

(MICHAEL GILBERT: UNINTEL)

## **QUESTION (FEMALE VOICE):**

Yeah, good ideas, yeah. (LAUGHTER)

## **MICHAEL GILBERT:**

It's a categorical yes, it's possible. The-- the question is whether you can do so anonymously. You-- you-- there-- there are elements of opera-- of what we refer to as ob-sec, or observational security, that help you to separate your real-life identity from your online persona, or from your, you know, from your wallet address.

To the first question, I think it's absolutely worth recognizing that a lot of people who do buy drugs on the Internet don't use cryptomarkets. And it's frankly pretty easy. Go on, like, Twitter right now and look at people selling Xanax bars--

## **NABARUN DASGUPTA:**

Or your inbox.

## **MICHAEL GILBERT:**

And-- yeah, you'll find a lot. And so, you know, cryptomarkets certainly don't have, you know, I don't-- I don't know what proportion of the online drug trade occurs through here-- through the-- you know, through those-- you know, through those systems, but they-- they-- I think they facilitate the-- sort of protection of people's liberty in the process of pursuing whatever states they're-- they're seeking with-- with-- drug consumption.

## **NABARUN DASGUPTA:**

So-- so, to kind of take that a little further, the-- the questions-- the-- the drugs that you can buy from-- from online pharmacies that are kind of in the regular Internet-- tend to ship Schedule-- Schedule III and IV substances. So, that means things like Valium are definitely included, and codeine is-- and Tramadol are kind of the-- of the controlled substances, the most common.

When people order something stronger, like an oxycodone or even a hydrocodone, the-- what they get in the mail from Pakistan or from wherever else is usually just codeine or something of a lesser-- potency. So, you know, they-- they got scammed when they made that purchase. That's not to say that that's a sufficient regulation for this-- for that



phenomenon, but-- you know, there are-- you know, the-- the U.S. postal service has had-- has had multiple kind of efforts to do different kind of-- kind of ambient drug testing of packages that go through the mail.

There's been kind of experiments to understand-- to-- to detect kind of the more potent-- chemicals that get transferred. So, the private-- package carriers, UPS and FedEx, all have specific policies and other testing things that they do that are not widely reported, and maybe not widely done, not to every shipment. You know, there's-- it's all-- the volume of-- of-- of p-- of packages is so high that they're never gonna get to 100% interdiction on that. But that's a good question.

## **DANIEL WOLFE:**

And to the-- the question about Bitcoin and anonymity, or-- yeah, or protection of identity, I have noticed in the rhetoric around when sites are closed or when the-- anonymized email servers are taken down, a lot of discussion of freedom, anti-censorship. Like, people are referring to these markets as, you know, genuinely free and these efforts as anti-censorship. And so, a lot of invocation of sort of American libertarian traditions. Reflect.

## **MICHAEL GILBERT:**

Yeah. (LAUGH) So, you know, that-- that was, I think, like, most prominently-- sort of in-- sort of-- instilled in the community by the writings from the Dread Pirate Roberts on the original Silk Road forums-- where there was a lot of sort of libertarian, anarcho-capitalist ideology-- that-- frankly was as important, I think-- politically or philosophically within the development of the technology and the community-- to the harm reduction stuff. Like, I-- I-- I wanna-- I wanna be clear, like, I don't think that anybody necessarily built these markets with the explicit purpose of harm reduction. Liberty was definitely at the top of the priorities.

## **DANIEL WOLFE:**

Or was it money that was--

## **NABARUN DASGUPTA:**

And money was the--

(OVERTALK)

## **DANIEL WOLFE:**

--at the top of the priorities?

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**MICHAEL GILBERT:**

Autonomy-- well, yeah-- the-- the-- yeah, the money didn't hurt, I guess-- I guess-- I guess it didn't. But you know, it-- it's also—

**QUESTION (MALE VOICE):**

It's the same thing.

**DANIEL WOLFE:**

Oh, right. (LAUGHTER)

**MICHAEL GILBERT:**

Yeah. Yeah. You know, yeah, but you can't spend your money if you're livin' in a cage, you know, just-- just ask Ross.

**DANIEL WOLFE:**

Yeah. So, Ash, you still have the microphone or no?

**ASH CALB:**

Oh, no.

**DANIEL WOLFE:**

You gave it up? Yeah, and then-- or yeah.

**QUESTION (MALE VOICE):**

Anybody-- anybody before me. I'm boring. (LAUGHTER)

**QUESTION (MALE VOICE):**

Thank you. A couple of years ago I read an article in *New York Times* magazine about one guy who had very modest way of life, living very simple condition apartment, but he become multi, multi-millionaire and a bunch of people worked for him and after they began to do same what he did.

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And he did approximately what you spoke about now. And he hire assassin to kill the-- a couple of these people to give a lesson. F.B.I. agent who was involved in this case, when he saw how easy to make a million dollars and he worked something for \$70,000 a year-- he began to do the same. So, how it comes that you have not this temptation to do the same?

(LAUGHTER)

## **DANIEL WOLFE:**

And-- and I should clarify that our colleagues are not actually running cryptomarkets. (LAUGHTER) They just know a lot about them and sound like they could, but that's not their role.

## **NABARUN DASGUPTA:**

I don't even own Bitcoins (UNINTEL)--

## **MICHAEL GILBERT:**

Yeah, I mean, frankly, I'll-- I'll leave that to other people who are way more technically talented and-- sort of risk-- you know-- accepting than I. I-- also I-- if I did it, I would be, like, horribly self-flagellating about whether I was doing it in the absolute perfect way at all times and it would be a nightmare.

## **QUESTION (FEMALE VOICE):**

I have a question. We've talked a little bit about the possibility for harm reduction-- sort of more endogenously to these markets, but do you see an opportunity to infiltrate or capitalize for people who are not buying or selling drugs, but more interested in public health promotion, harm reduction?

## **MICHAEL GILBERT:**

Yeah, absolutely. There are some really great sort of predicates for that. Like Fernando Caudevilla-- you know, who runs Energy Control-- the-- you know, d-- drug checking service based in Barcelona. You know, he kinda held court on the Silk Road forums and in other places thereafter.

There are several other people who have done that and provided, you know, information to people-- to help them answer questions. There are other groups like, you know, there are all these reviews that are associated with the markets now that-- may not all be making it to the places where they used to be.

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And used to be kind of sounds like a grand statement, but you know, places like Eroid or-- you know, other places where people used to gather, Bluelight, or where people talk about their experiences with drugs. Having a sort of curatorial function, you know, and frankly if there are tools that can use-- a sort of digital assist to help distill the wisdom of the crowd and feed it back to people who are seeking it-- that's useful.

And then there's-- it's also an incredible forum for understanding information-seeking behaviors. Like, people ask questions-- and knowing what the questions are-- is extremely useful. And you know, characterizing, like, what-- you know, when new products emerge, what do people do to keep themselves safe?

And how can we understand and, you know, and share that information-- I think is-- is useful. And then there are other things around, like, helping people maintain their liberty. Like-- you know, one of-- one of the simplest functions-- from you know, a website that is just very recently defunct-- provided a service that gave the public a key, the sort of encryption key for-- that vendors had posted over time.

And helped people to verify those-- you know, in a historic-- in a sort of provably historical context so that when they went to send somebody a message, they either knew this is their key or this has been assigned by their old key, so that you're not talking to the police officer sitting over their shoulder. So, there are functions that are both informational-- and technical that I can help people-- sort of navigate-- you know, the environment.

## **DANIEL WOLFE:**

So, I see some people at the microphone here, Heidi. And I see some hands awaiting a microphone. So, let's go to the person at the microphone first and then--

## **QUESTION (FEMALE VOICE):**

Hi. Do you know if the recent-- market fluctuations in cryptocurrency have affected the market? Like-- have people been hoarding or trying to flash-sell real fast? And do you think that will-- have any impact on the long-term stability of these types of markets?

## **NABARUN DASGUPTA:**

Yeah, that's-- it's a good question. And-- and the way that the fluctuations-- so, the-- what-- what she's referring to is that the cryptocurrencies, these-- digital currencies have increased in value, you know, as steep a line as you can draw. And-- for some of the major ones.

And then smaller currencies have kind of-- each with their own flavor and doing things a little differently, have also emerged. And those have kind of increased. And there's kind of a whole kind of cottage industry in offering new coin-- products basically, new types of money-- which is not very-- you know, different from, like, when Visa and Master Card and credit cards came on the market, you know, became popular.

So, it's very much the same kind of conceptual process. So, the fluctuations have been very extreme and there are people who have made kind of mind-boggling amounts of money. By all estimates, the number of people who have benefited from that is very, very small. You know, it's less than 10% of all the people who hold this currency have kind of had this substantial increase in their online wealth at least. So, the way that the markets are responding, you know, you see price fluctuations, but even, like, within a transaction the price could also have changed by the time someone hands the coin to the market and it gets-- sent to the vendor.

So, there are kind of-- agreed on rules for some of that. But I think, you know, what-- what is-- so I-- I'll give you an anecdote of someone-- who-- lives here in New York. And she had been a Bitcoin speculator and just kind of out of boredom just did it and then made a ton of Bitcoin and decided she needed to spend it and didn't really want to kind of bring it into cash, 'cause she didn't want it to be traced back to her, okay.

So, she just thought, okay, what can I use this for. And so, she went-- you know, she said, "Okay, well, I guess I can buy drugs." She wasn't particularly like a drug user particularly-- you know, wasn't like some-- that wasn't, like, a big-- piece of her identity.

But what she ended up doing was finding-- she had a very kind of difficult mental health condition that was-- was what she found effectively treated by s-- an unregulated medication-- that was available online, which was grown, you know, comes from Africa and it doesn't-- isn't available in the United States. And she found this to be, like, a very therapeutic thing.

So, but at the same time you can see how that kind of-- you know, it goes back to the bakery and-- and cakes-- problem as well. So, I think there-- the fluctuations are changing the markets, but I think it's also changing people's behaviors as well.

## **DANIEL WOLFE:**

Let's take-- two more questions and then-- or three more questions and then we'll bring it to a close. Yeah, please.

## **QUESTION (MALE VOICE):**

Real quick, my question is, is there a consolidated effort right now in the dark web to push the harm reduction movement as a coalition, to gather people together and say, okay, we're gonna step out (UNINTEL). I'm gonna step out and-- in the United States and I'm gonna step out in Europe, and I'm gonna step out in South Africa, whatever.

And we're going to gather these anonymous people. We're gonna contact (NOISE) them and we're gonna tell them, "Let's promote a message." Safe m-- whatever, we come to a conclusion and we get all the groups together. We do all this nonsense that gets done or needs to get done to get people to-- to get an idea. Is someone doing that right now?

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**DANIEL WOLFE:**

Thanks. Don't answer yet. Let's go to-- to the last two questions and then—

**QUESTION (FEMALE VOICE):**

Thank you. Yeah, no, I think my question was along the same lines in-- in that I was thinking there's one thing to bring harm reduction to the dark net, and there's also to bring the dark net's harm reduction out onto the streets, which I was also thinking, like, are there-- and you come from this public health orientation.

Are there practices that we can learn from the markets and pull out for larger public health interventions around anonymity, around the kinds of information that people share, why they find these spaces, unique spaces to be able to interact, safe spaces in some ways, and bring that into the public health efforts.

And I think that would be-- a much different way to think about these markets, to not try to necessarily turn them into something-- that they refuse to be, but to really take the elements of them-- and to exploit that for the benefits of public health.

**MICHAEL GILBERT:**

Yeah, absolutely.

**DANIEL WOLFE:**

One more. Sorry, one more question.

**MICHAEL GILBERT:**

I'm so excited about these questions (UNINTEL).

(OFF-MIC CONVERSATION)

**QUESTION (MALE VOICE):**

Thank you. My question was is there, like, a common profile of the market administrators, the buyers, the sellers? Like, because I would more or less think that it would be more-- organized crime organizations that actually could use this (UNINTEL) to its full ability because there seems to be a high level of risk.

And like you were saying earlier-- most people, they would need kind of (UNINTEL) to be tech savvy to actually kinda use the dark net, to-- to access it. And I know from just being on

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a college campus, you're gonna meet a lot of people who just use SnapChat or use Twitter to buy most of their drugs or scammers for their papers or anything like that.

## **NABARUN DASGUPTA:**

Yeah, let's-- I can-- start with that one. I mean, I-- I think we-- we will-- I mean, I think it's-- I don't know, I would go out on a limb and predict that we will see a cartel-based cryptomarket emerge in the next couple of years. And I don't know that that's a good thing-- (LAUGH) but I don't know kind of, you know, and I-- and I think we already see specific-- we've already observed specific examples of cartel-- cartel players distri-- of-- interacting with the cryptomarket. So, a very quick example from Quebec-- Quebec?

## **MICHAEL GILBERT:**

Oh, yeah.

## **NABARUN DASGUPTA:**

Yes. Was-- was-- someone who was a cartel distributor in Canada and had been incarcerated and was actually continuing to sell cartel-based drugs through the cryptomarket from the prison computer. And so, there was-- you know, so there are, like, specific examples that we can point to that we know.

We also see on the cryptomarkets, people kind of selling cartel-branded products. So, like, s-- Sinaloa heroin, for example, you can search for and-- and ostensibly purchase, you know-- drugs that were produced or at least distributed by certain cartels if that's-- that's the nature of what you're looking for. So, I-- I think it's-- it's-- I don't know-- it's kind of-- you-- what-- in terms of, like, the moral barometer, that's kind of where things start feeling not so good.

## **DANIEL WOLFE:**

But how about the-- the questions about the good? Either getting people together in the same way that harm reduction advocates used to find dealers who would be willing to distribute Naloxone or s-- or provide clean needles? Like-- is there some movement-- organized movement to actually separate out people, I don't know, markets of-- marketeers of conscience-- or who are willing to do something? Or the other question, which is what can we learn from the dark web about how to actually talk to people about things that they want to talk about, that they can't talk about on the clear web?

## **MICHAEL GILBERT:**

So, yeah-- I think the-- there may be at least two parts of the question that you asked that I wrote-- that I want to touch on. One is, you know, are these online communities translating

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into face-to-face, boots-on-the-ground organizing, you know, for political change, social change?

And-- the answer to that, I would say, is unfortunately no. M-- primarily because people come to these markets and they use them-- partly, perhaps largely because of the pseudonymity that they provide, because you know, they can-- they're-- they're there for their own purposes, mostly, you know, to buy or sell something.

And they don't n-- they don't want to connect their identity-- you know, their meat space identity with that digital, you know-- identity. So, there's not a lot of, like, let's get together and let's meet. There is a lot of-- discussion and promotion of harm reduction-- sort of as-- as a set of sort of ideas and pra-- practices.

Like referring to harm reduction within the markets is seen as a very virtuous thing. Saying that somebody is practicing harm reduction is-- is, like, seen as-- as great praise. And it's also something that people do to signal virtue and to-- as a-- p-- perhaps as a market differentiator and perhaps as a-- example, you know, to others.

Actually, I think I actually-- I have a couple of slides that I prepared, and I-- I want-- I just want to show one because it-- (NOISE) I think it-- well, it-- it sort of illustrates this-- almost exactly. So, this is-- a listing from yesterday for 56 grams of number four gray or tan heroin from (UNINTEL).

(UNINTEL) sort of made a bit of a splash recently when they started selling, as you see-- oh, we can't read it down there, "Free Fent strip included with every order. Be safe out there." So, they're sending Fentanyl test strips along with their number four. You know, if I'm in Boston and, you know, the market is saturated there, this person is offering to sell me some number four that, along with the means to confirm-- the absence of Fentanyl in it (UNINTEL).

## **QUESTION (MALE VOICE):**

And has customer ratings from its previous customers saying that (UNINTEL)-- (OVERTALK)

## **MICHAEL GILBERT:**

And there are markets that have waived vendor bonds from-- for people who are willing to sell things like-- Naloxone. So, you know-- it-- the-- AlphaBay market, you know, Trappy was one of the sort of front-facing customer reps, you know, or you know, admins-- who made it a policy that if you sold Naloxone products-- you could get, you know, bonds and commissions waived.

So, there are incentives to, you know-- to perform these practices. And to your question about, like, do we try to promote harm reduction within the markets or learn-- like, what's the directionality of learning and teaching-- I-- I would learn a lot-- I-- I love the opportunity



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to learn from people who buy, use, and sell drugs about their experiences on all sides of those-- those equations-- because we get to see such quick iteration of new strategies. You know, you get to see things like, you know-- LSD vendors who are also including Xanax bars with their-- with their products so that if people have an uncomfortable experience, they can cool out a little bit. And that's-- you know, establishes a best practice. I know people who didn't know that that was a thing until they saw it on the Internet. And we can learn a lot of other ways like, you know, the-- the evolutions of, like, new form factors for drugs. Like-- you know, Fentanyl's pretty hard to dose if you're getting it-- you know, in a raw form, which most people aren't. They're getting it cut with Inositol (PH) or Mannitol or whatever, you know, whatever else.

But-- you can-- if you have a relatively pure, you know, product, you can mix it with-- you know-- a buffer, with a-- a liquid, and make it into a nasal spray with, like, a specific, you know, 100 microgram per pump dose. You can put it onto a blotter and administer it sublingually. And if you're trying to, like, go to work and-- not be sick and not nod and not get caught just going off to the bathroom every so often, those are really interesting practices-- that-- I never heard anybody else talkin' about at any of the harm reduction conferences that I went to before a year ago, you know.

And so-- and it's all-- I learned it from the Internet, from people who buy, use, sell, make-- you know, and so forth drugs. And I think that's where we can learn a lot from people, learn about the emergence of new drugs, new form factors.

## **NABARUN DASGUPTA:**

Yeah, and I think-- but-- just to temper it a little bit, so I think there's-- the-- the-- the path from the experimentation online with new form factors, new anything, to getting to the actual street level, to kind of what most people who use drugs experience, I think there is still kind of derivative steps that happen there, which we will-- you know, where some of this exp-- experimentation may catch on in a particular location, a particularly p-- person, or whatever, and won't kind of become the new norm.

On the other hand, we've also seen in online world in general that a particular new idea can catch on and become, you know, pervasive in society before we even know it. So-- monitoring the trends and watching and kind of seeing what does catch on, I think, is-- a very-- you know, is very useful to know kind of-- and-- and to see, you know, connecting that.

I-- I find, like, everything online needs to be connected with something on the ground. And so, seeing what you see online and-- and asking people, "Hey, have you seen a Fentanyl nasal spray? Have you seen this happening here?" You know, and kind of-- talking, you know-- if you're doing direct service, then having, you know, connecting those dots, I think, is-- is gonna be useful for everyone.

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## MICHAEL GILBERT:

And-- to build on that, too-- you know, I think sometimes people don't know what they want until they see it. And in the case of a lot of, like, emerging drugs or in-- in these markets-- it's not prescriptive, like, "Oh, we saw this here. Everybody should be doing this."

It's not like I'm gonna go-- you know, it's not like I'm gonna tell somebody across the table, you know, at-- at an outreach site like, "You should be putting your mephedrone in a vape," you know, or whatever, but it's an option, you know. And if that person is-- you know, if their sinuses are infected and they're used to insufflating drug-- you know, whatever their drug of choice, and there are other options, then you can learn a lot.

And there are innovations coming out from-- or being discussed in the markets that, I think, provide an uncommon window that frankly, I think, gives us a really good argument for working with people who use drugs every single day, in every possible way that we can-- because look how much we can learn just from the Internet, just from this, like, weird, distorted mirror that we have to hold up to society. Like, if we actually talk to people directly, we can learn a whole lot. And I think that's where it's valuable.

## DANIEL WOLFE:

Yeah, I thank you. I think we'll actually stop there. I know that-- Ash, I'm gonna invite you to come up, to approach-- (BACKGROUND VOICE) approach the bench (LAUGHTER) after-- after because I-- I can tell from-- even from the first part of your question that it may be technically-- technologically beyond some of us in the-- in the audience. But thank you all for coming and thank you, guys. I mean, I don't-- I neglected to mention that-- our speakers have come from Portland and North Carolina, respectively, just for tonight. So, really, greatly appreciated. Thank you.

(APPLAUSE)

## NABARUN DASGUPTA:

Thank you for having us.

## MICHAEL GILBERT:

A pleasure. Thank you.

\* \* \*END OF TRANSCRIPT\* \* \*