

How to build free-markets and other anonymous services?



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Disclaimer

The goal of this presentation is to describe how current cryptosystems can be used to achieve voluntary and free-markets

Some conclusions which this presentation produces may be against current socially acceptable standards - be it legal or otherwise.

In any case, this is for theoretical and educational debate only and does not intend to infringe on any law in the UK or elsewhere.

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Why free-markets?

Because ...

- People have just a right to voluntarily sell or buy anything that evidently does not affect/harm other people (including drugs or sexual services)
- It directly reflects mutual voluntary decisions of sellers and buyers
- Any regulations that intervene to this voluntary relationship always make products and services more expensive
- Free-markets means economical freedom that drives and increases prosperity of all countries (Hong Kong, Singapore, Switzerland, ...)



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ons (tax
possibility to
and regulate,
reduction.....)

1. Get "clean" bitcoins!

- Buy "virgin" bitcoins without transaction history
- Use bitcoin laundries
- Buy from

3. Make TCP redirectors to Tor/i2p hidden services

- Start TCP redirectors (e.g. using proxies or xinetd) to your TCP services (email, web, ...)

in registration
be bought

trial domains

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in these days and in this society...
Anonymization is probably the only way how to achieve free-markets and mutual voluntary business relationships....

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in
(quite)



Can we trust in Tor and Tor hidden services?

And be prepared...
Governments and
agencies do not li
- because

and be prepared

Governments do not like
anonymity - because of
countless reasons (tax
evasion, impossibility to
control and regulate,
power reduction.....)

1. Get "clean" bitcoins!

3. Make TCP redirectors to Tor/Ip hidden services

- Start TCP redirectors (e.g. using `iptables` or `iptables`) to your anonymous TCP services (email, web, p2p, ...)
- Use always Tor to access this machine...
- Machine through SSL
- Disable all logging and do not leave any traces (in case when this "redirector" machine will be confiscated by authorities)

2. Buy an anonymous domain and virtual server housing

4. Start your own Tor/i2p hidden services

Why free-markets?

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1. Domain registration



Domain registration

- Not every public domain can be bought anonymously using bitcoins
- be prepared that some/.net/.us/.uk domains are under US/EU jurisdiction and can be easily blocked by authorities
- You can use an (anonymous) proxy (freelance) or an (anonymous) VPN to register third domains anonymously
- If you have limited number of bitcoins, do not use public domains at all, use some of the anonymous third domains

2. Use multiple domains, multiple server housing

- Anytime your domain is blocked by authorities, use a different and new one
- Have multiple virtual servers that directs to the same .onion anonymous service (in case when the one is confiscated)

3. General security advice

- Never use REAL money or credit cards
- Always use the latest Tor Browser bundle

And now everybody starts anonymously to hire hitmen and sell & buy human organs!!!

That's unlikely because:

1. It is really difficult to create and maintain a reputable escort service with a "good reputation" for murder and/or human organs.
2. Without the escort service it is much more safe to hire hitmen from the real world instead of the clubhouse.
3. Most people do not voluntarily support services or companies which harm other people - it is simply not good for a business and of course you can freely choose if you want to be a seller/buyer (and support it) in the racket or not.
4. Committing murder is always a question of money: clubhouse was and always will be - there is no difference between the real world and clubhouse.

Recommendations

- Timothy C. ... anarchist
- The Cyph...
- Paul Rose... of Wayfar...

But nobody is using Tor/I2P!
How to connect the anonymous service
to the real non-anonymous Internet?

How to prevent your domain and virtual hosting from shutting down?

Anonymization


In these days and in this society...
Anonymization is probably the only way how to achieve free-markets and mutual voluntary business relationships....

We have solid technologies to make it possible....

- Anonymization networks (i2p, Tor) for anonymous hosting
- Decentralized bitcoin cryptocurrency for (quite) anonymous payments

And be prepared...

Governments and authorities do not like anonymity - because of countless reasons (tax evasion, impossibility to control and regulate, power reduction.....)

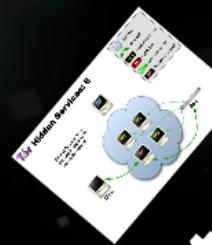


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Anonymity networks

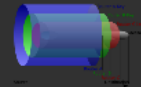
- Implementation of Onion Routing
- Volunteers operate an overlay network of onion routers that employ encryption in a multi-layered manner (hence the onion routing metaphor) to ensure perfect forward secrecy between routers
- That anonymity extends to the operation of censorship-resistant servers via Tor's anonymous hidden service feature



Can we trust in Tor and Tor hidden services?

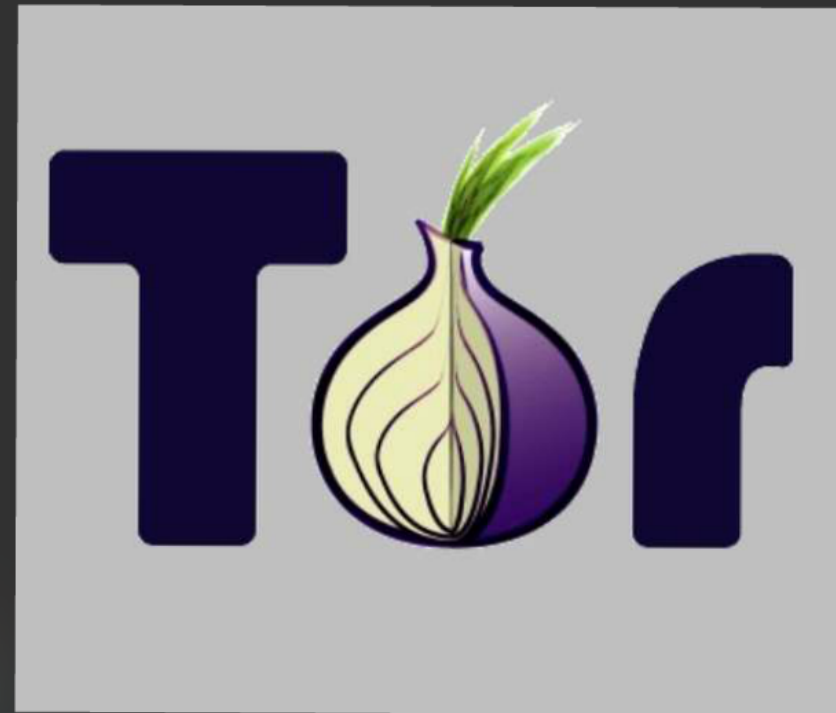
TOR Network Topology

- 7 Hardcoded "trusted" authoritative directory servers are used for obtaining random TOR nodes
- 3 TOR nodes (entry node, middle node, exit node) run by volunteers are used for the encrypted channel
- If the directory servers are blocked, it is possible to use TOR bridges



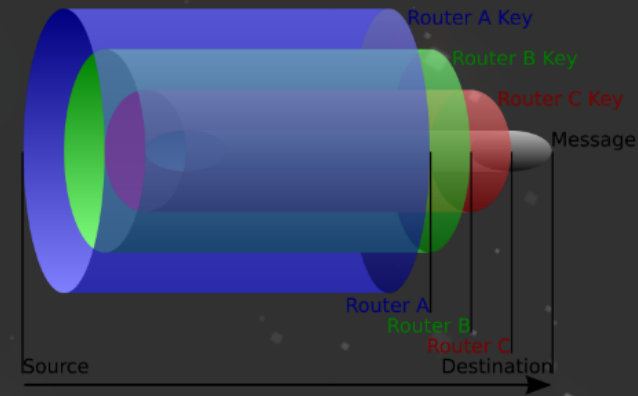
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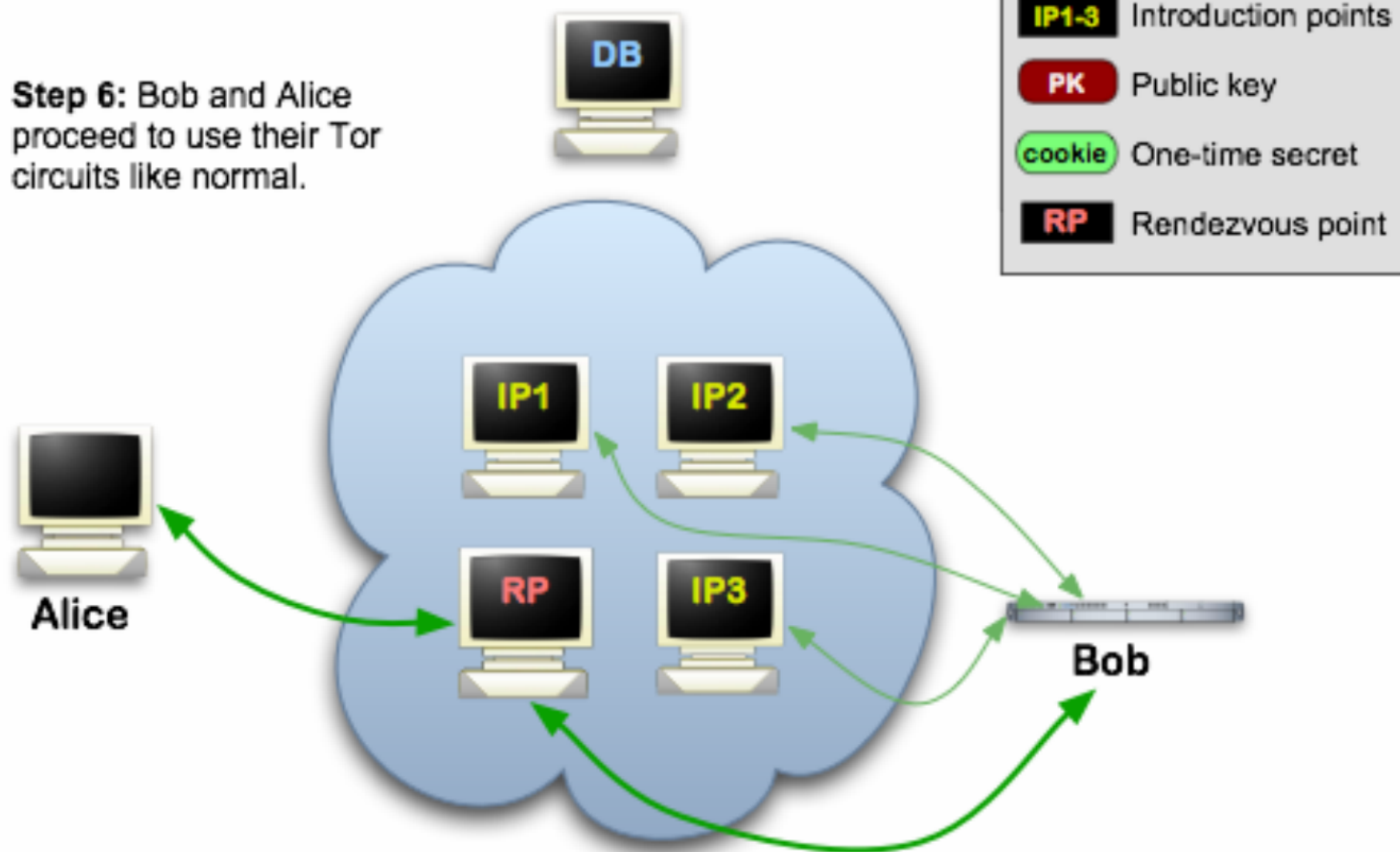
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Tor Hidden Services: 6

Step 6: Bob and Alice proceed to use their Tor circuits like normal.



Can we trust in Tor
and Tor hidden
services?

• Free-markets means economical freedom that
drives and increases prosperity of all countries
(Hong Kong, Singapore, Switzerland, ...)

1. Get "clean" bitcoins!

- Buy "virgin" bitcoins without transaction history anonymously or use bitcoin laundries...
- Buy "dirty" bitcoins and use multiple bitcoin laundries in a chain (e.g. <http://www.bitcoinlaundry.com>)
- Mine your own bitcoins (use bitcoin pools available through Tor hidden services)

3. Make TCP redirectors to Tor/i2p hidden services

- Start TCP redirectors (e.g. using iptables or xinetd) to your anonymous TCP services (email, web, jabber, ...)
- Use always Tor to access this machine through SSH
- Disable all logging and do not leave any traces (in case when this "redirector" machine will be confiscated by authorities)

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- Be prepared that domains are un...
- You can use (Iceland) or problem to anonymous
- If you h do not .onion

But nobody is using Tor/I2P!
How to connect the anonymous service to the real non-anonymous Internet?

How virtual

2. Buy an anonymous domain and virtual server housing

- There are dozens of companies that offer anonymous server housing and/or domains and accept bitcoins (e.g. Microtronix)
- Register domain anonymously and points it to your anonymous server housing
- Of course always use Tor and "washed" bitcoins
- Choose "full-disk encryption" if it is possible

4. Start your own Tor/i2p hidden services

- Bind all your services to localhost or use NAT
- Use secure implementation of TCP services (e.g. vsftpd, qmail, httpd...) in order to prevent an exploitation

And that's all !

We have pretty anonymous TCP services available from the non-anonymous Internet!

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**But Tor/i2p is too slow
for most TCP services....**

For example VoIP:

- **Consider to use Tor just for loading sensitive configurations (from LDAP, SQL database)....**
- **But RTP/SRTP stream will NOT BE anonymous! Use fast wifi on public places**

4. Start your own Tor/i2p hidden services

- **Bind all your services to localhost or use NAT**
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And that's all !

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1. Domain registration

- Not every public domain can be bought anonymously using bitcoins
- Be prepared that com/org/net/co.uk domains are under US/UK jurisdiction and can be easily blocked by authorities
- You can use .ch (Switzerland), .is (Iceland) or .no (Norway), but it can be a problem to register these domains anonymously
- If you have limited number of customers, do not use public domains at all, use .onion or Dianna decentralized domains

2. Use multiple domains, multiple server housing

- Anytime your domain is blocked by authorities, use a different and new one
- Have multiple virtual servers that directs to the same .onion anonymous service (in case when the one is confiscated)

How to prevent your domain and virtual hosting from shutting down?

3. General security advice

- Never use REAL money or credit cards
- Always use the latest Tor Browser bundle
- Always use full disk encryption (in the UK it is possible to use "hidden volumes" to avoid the "key disclosure law")
- Use physical security countermeasures (e.g. detection of chassis intrusion)

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**And now everybody starts
anonymously to hire hitmen
and sell & buy human organs!!!**

That's unlikely because:

1. It is really difficult to create and maintain a reputable escrow service with a "good reputation" for murders and/or human organs
2. Without the escrow service it is much more safe to hire hitmen from the real world instead of the cipherspace
3. Most people do not voluntarily support services or companies which harm other people - it is simply not good for a business and of course you can freely choose if you want to be a seller/buyer (and support it) in this system or not
4. Committing murder is always a question of morality (always was and always will be) - there is no difference between the real world and cipherspace

**How the ideal voluntary
free-market system
(Gamma*) can look like?**

- HIGH ANONYMITY AND AVAILABILITY
- GUARANTEED PRIVACY
- VOLUNTARY TAXES AND CONTRIBUTIONS
- MULTIPLE ESCROW SERVICES
- MULTIPLE REPUTATION AGENCIES
- MULTIPLE PAYMENTS METHODS
- MULTIPLE DELIVERY METHODS
- DECENTRALIZED AND REPLICABLE

Ideal voluntary free-market system?!



Recommended texts

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- The Cyphernomicon
- Paul Rosenberg: A Lodging of Wayfaring Men

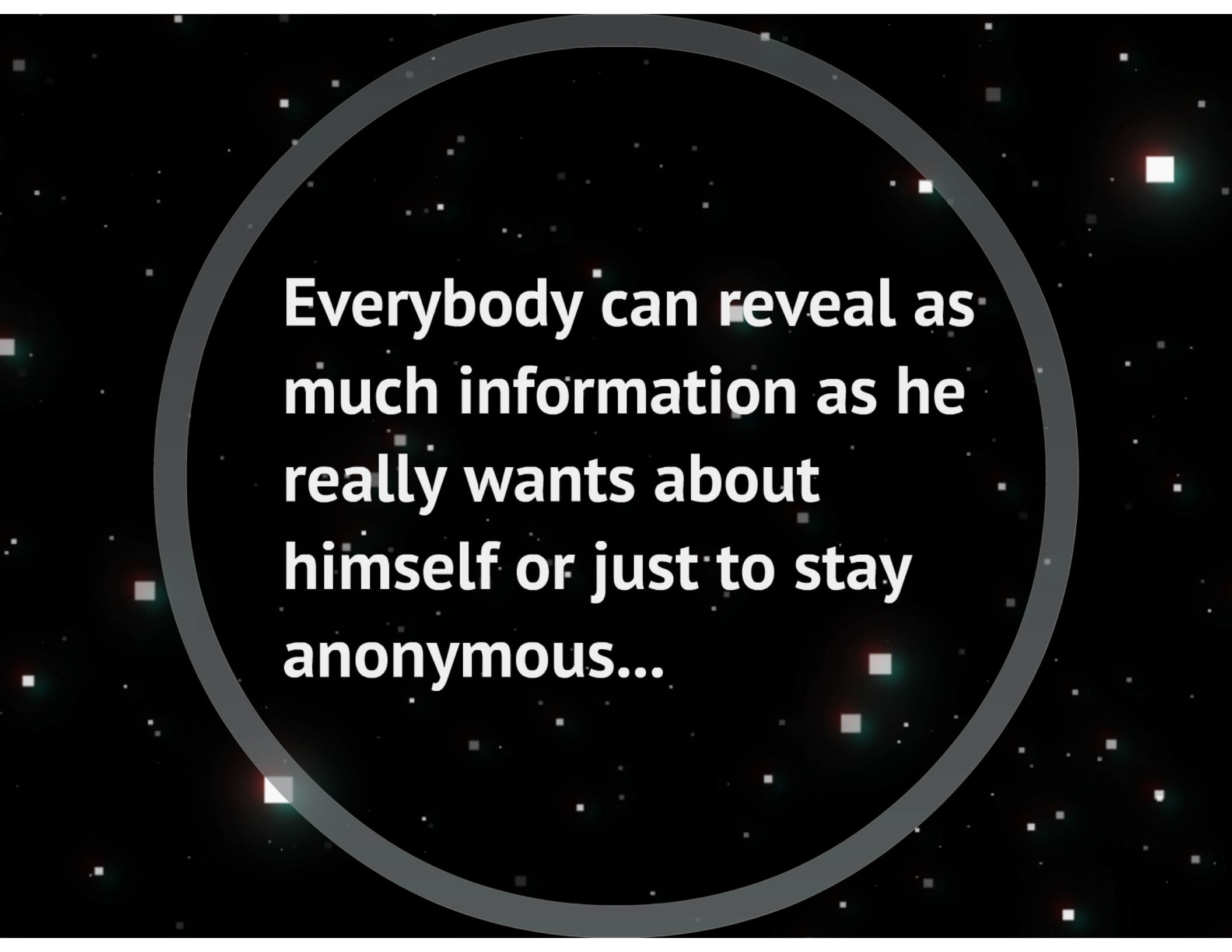
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**The system can be
available from the
public Internet using
anonymously-registered
public domain / server
housing (thanks to
i2p/Tor and bitcoins)**

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**Everybody can reveal as
much information as he
really wants about
himself or just to stay
anonymous...**

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- **Everybody can decide how many % from his transactions he wants to dedicate to the government or his favorite charities**
- **Mandatory taxes are IMMORAL because they are not mutually voluntary**
- **People have a right to decide how to spend their own money and what/who support (true solidarity makes sense only if it is voluntary)**



ous services?

And now everybody starts
anonymously to hire hitmen
and sell & buy human organs!!

That's certainly because:
1. It's really difficult to investigate someone's reputation
anonymously and 2. "Good reputation" for hitmen
and/or human organs
3. Minimal tax and/or service fee to make many calls to
have a better time in the real world instead of the
internet
4. Most people do not voluntarily report services or
reputation which have other people. It's already not
good for a business and of course you can freely choose
if you want to be a volunteer or not to report to the
system or not
5. Considering number to change a question of and why
choose not to share with all - there is no difference
between the real world and the internet

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- 
- **Every seller and buyer can choose voluntarily the best suited escrow service for their business**
 - **Everybody can choose multiple escrow services with different conditions and rules depending on his needs and character of his business**

How the ideal voluntary free-market system (Gamma*) can look like?

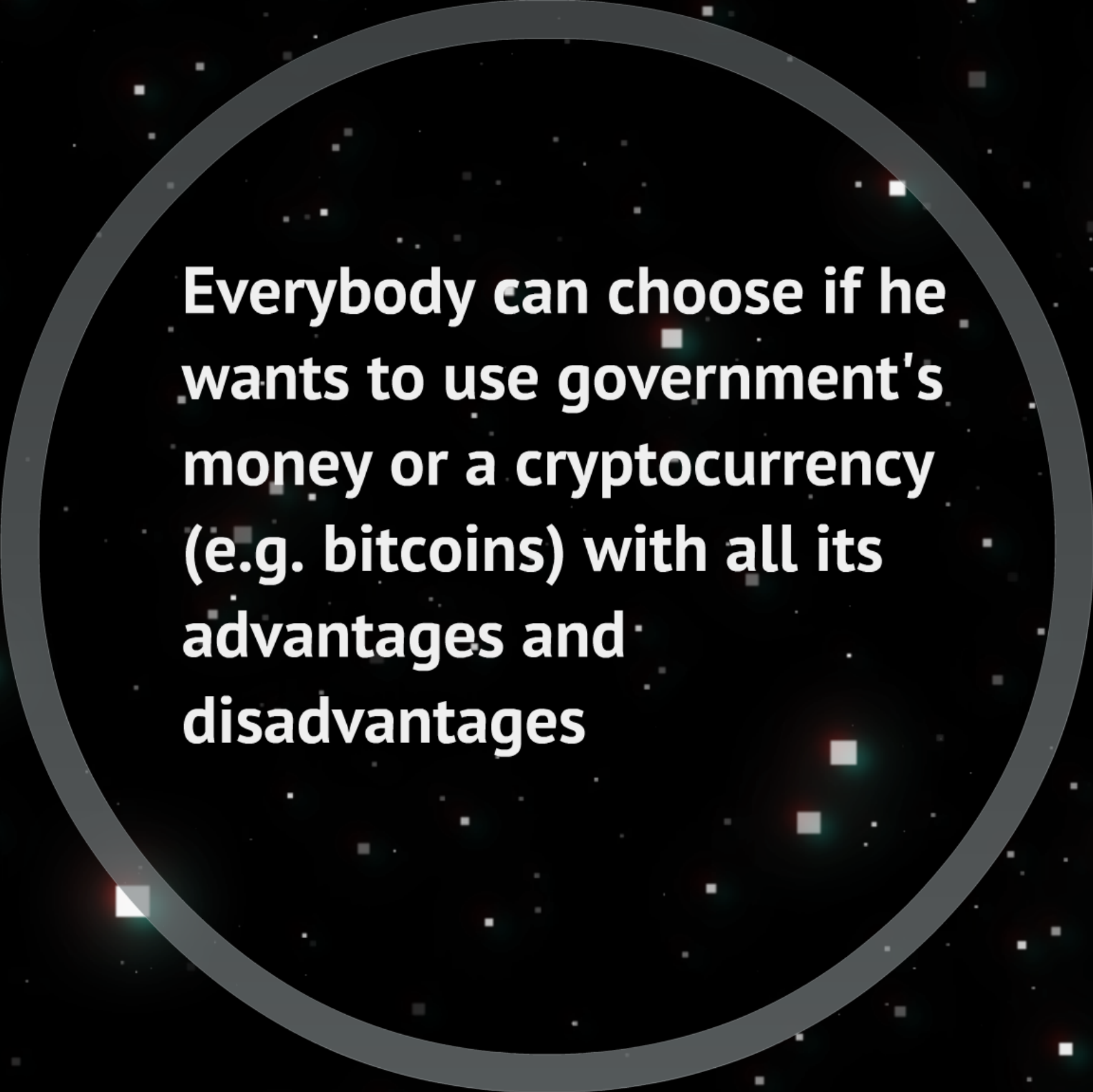
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**Everybody can voluntarily
choose a reputation agency
whose reputation model he
respects at the most and
according to this reputation
model find a suitable business
partner**

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**Everybody can choose if he
wants to use government's
money or a cryptocurrency
(e.g. bitcoins) with all its
advantages and
disadvantages**

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**Do you want to use some
services of commercial
delivery companies,
altruistic groups or you
just need GPS
coordinates of your
product? :)**

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**The only way how to
prevent authorities from
blocking this system is to
create thousands and
thousands working
clones/implementations
around the world....**



**And now everybody starts
anonymously to hire hitmen
and sell & buy human organs!!!**

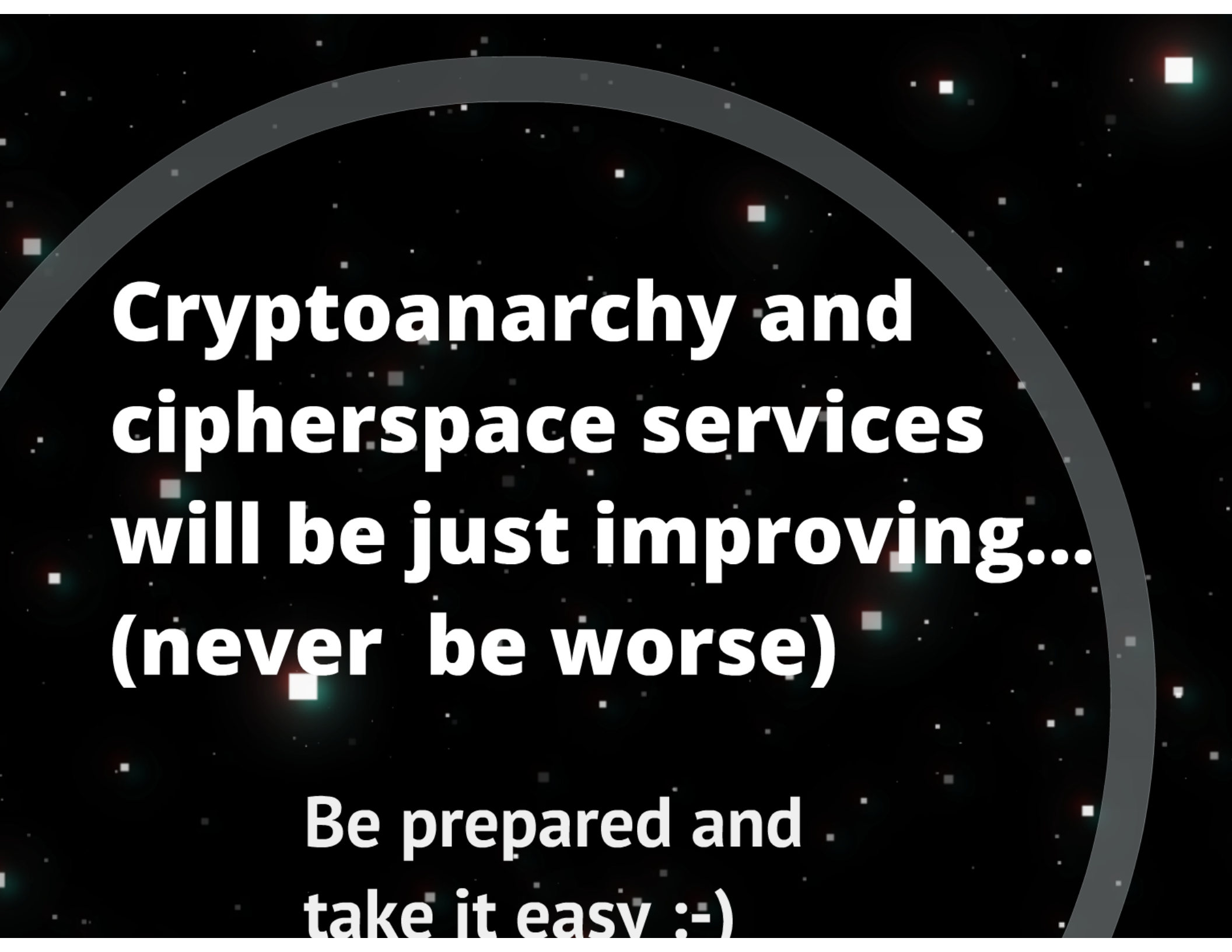
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- 2. Without the escrow service it is much more safe to**

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- 4. Committing murder is always a question of money (always was and always will be) - there is no difference between the real world and cipherspace**

The background is a dark, starry space. A large, thick grey arc curves across the upper half of the image. Numerous small, white, square-shaped pixels are scattered throughout the dark background, resembling distant stars or digital noise.

**Cryptoanarchy and
cipherspace services
will be just improving...
(never be worse)**

**Be prepared and
take it easy :-)**

ver be worse) ■

**Be prepared and
take it easy :-)**

Thanks for
changing your
opinions...

**Thanks for
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