The global context

An exponential development of the digital landscape is creating an extreme asymmetrical challenge

The global context

In the non cyber world, attribution is very powerful in deterring aggression.

The global context

So the question is – if we solve attribution in cyber-space, will we be able to re-stabilize the global digital system?

The digital landscape architecture – Web 1.0

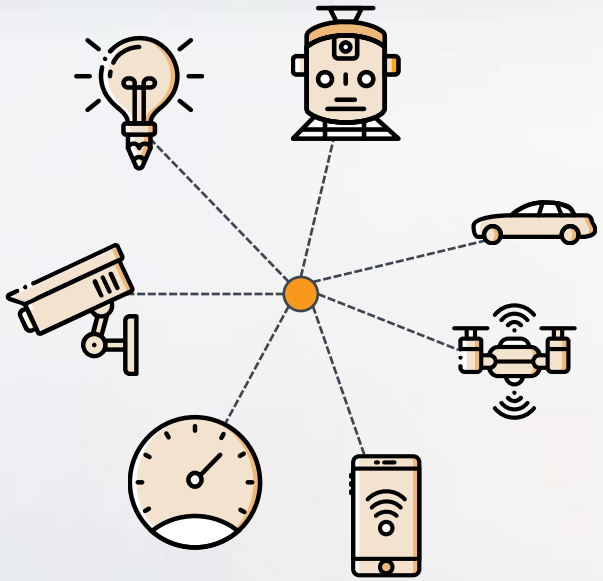
TCP

IP

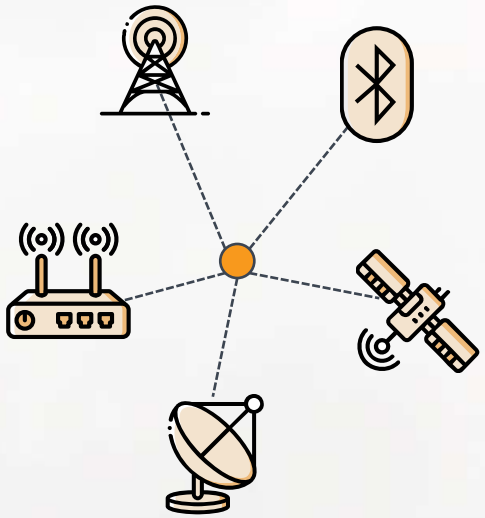
SMTP

HTTP

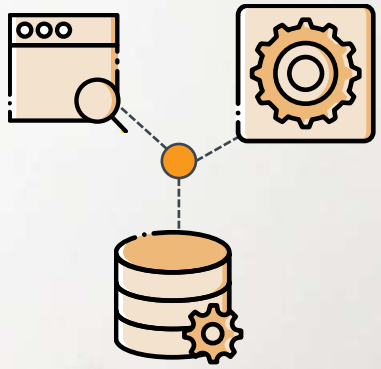
The digital landscape architecture – Web 2.0



IOT
Any
Device/infrastructure



Network Providers
Infrastructure



Value added service
And App Providers

Users

Good/bad

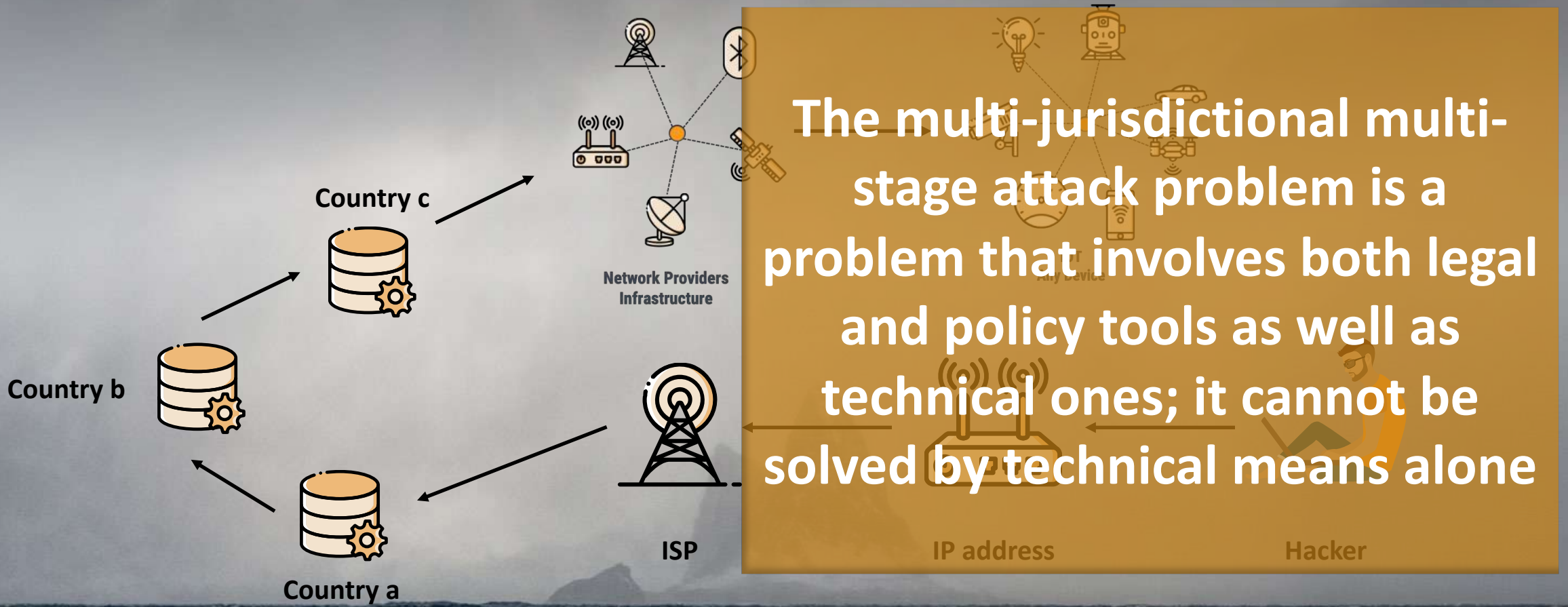
Long-tail of Digital Identity Footprints

Toka Cyber Builders

Questions in a complex reality

So what type of attack are we trying to deter with better attribution?

Attribution forensics in multi-stage scenarios



The multi-jurisdictional multi-stage attack problem is a problem that involves both legal and policy tools as well as technical ones; it cannot be solved by technical means alone

Back to questions in a complex reality

if we solve attribution, will we be able to re-stabilize the global system?

Do we fix the network? What part?

Do we regulate? Laws? Treaties?

Roles of government vs. the global system?

Who do we trust?

Toka Cyber Builders

The global context

• 'Old' nation-states

- **Regional** players – border oriented
- Law & order, civil liberties
- Mandate on forms of national power
- Responsibility to bridge gaps – physical, economic, social

Order, symmetry & asymmetry

• 'Cyber-age' nation-states

- **Global** players – borderless, challenged sovereignty
- **Challenged** law, order and civil liberties
- **No** mandate on forms of national power + new digital nations
- One **big** extra gap to bridge …

Lawlessness?, extreme asymmetry

Toka Cyber Builders

The global challenge

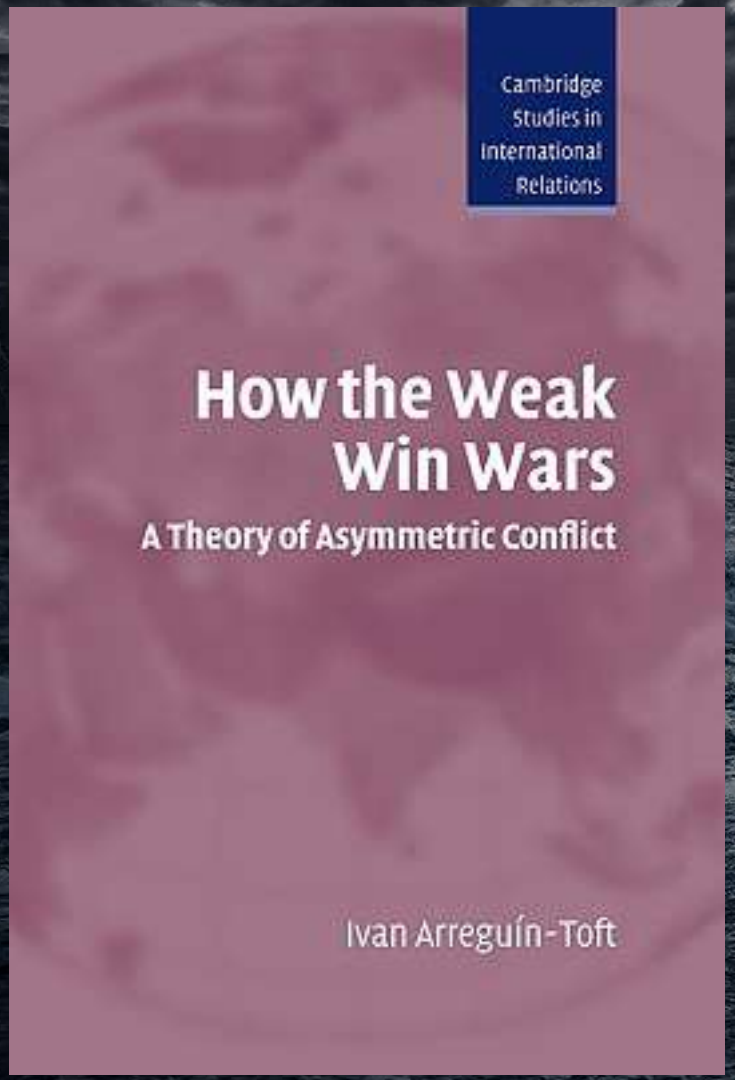
All forms of National Power are threatened –
the economy, the political system and military power.

a…global Cyber-Insurgency

Strategic tensions

The cyber domain has quickly become an operational domain for strategic purposes.

No effective deterrence regime – both local and global.



…"The likelihood of victory and defeat in asymmetrical conflicts depends on the interaction of the strategies weak & strong actors use…

Independent of regime type and weapons technology, the interaction of similar strategic approaches - favors the strong actors, while opposite strategic approaches – favor the weak…"

Nation's strategic challenge

So…It's both about strategy (policy & concept of operations) and a technological challenge.

Governments need to grow national level asymmetric cyber muscle.

The global strategic challenge

‘Those who know’
(according to their beliefs…)
USA, Russia, China, Great Britain, Israel, Germany, France, Canada, Australia, North Korea, Iran
+ new ‘digital nations’
Google, Facebook, Amazon, Microsoft, Apple, Twitter, Symantec, Norton, Kaspersky…

‘Those who don’t know’

The rest of the world…183 nations

Toka Cyber Builders

The global strategic challenge

No incentive for global order

Total distrust

‘Those who know’

Want to deter and defend their assets

Want to stay big players

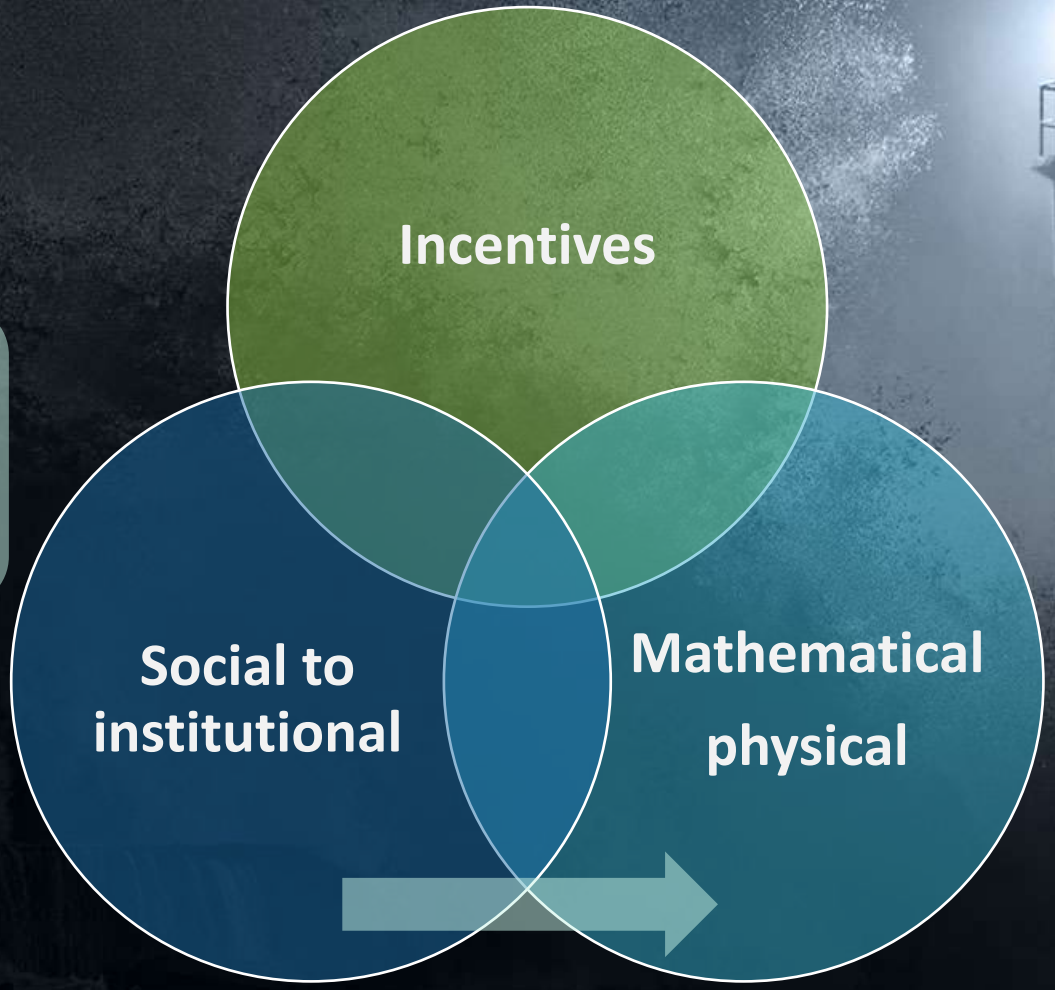
‘Those who don’t know’

Want to grow capabilities because a new form of power can enhance their global strategic positioning and limit the powers of the big players…any way possible – technological, other arrangement

Toka Cyber Builders

Shaping the global trust model

Balancing institutional regulation, law & order



Revolutionizing trust with crypto-networks

Toka Cyber Builders

So why go to crypto-networks - Web 3.0

It is open source

Collectively owned

Self policing

Neutral

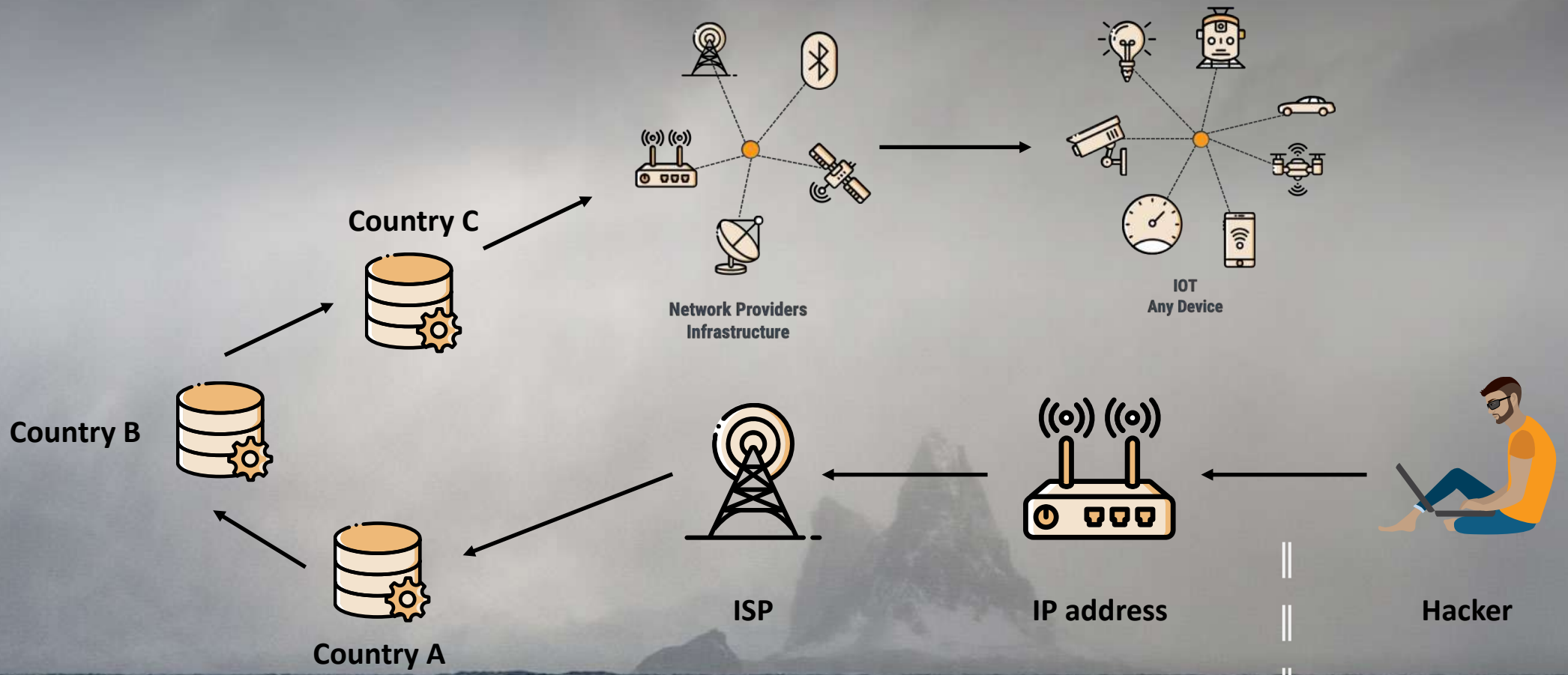
We have the technology!

Trustworthy
+
arrangements and fixes in Web 2.0

Toka Cyber Builders


Re-stabilizing cyberspace
Bright future ahead!
©2018 TOKA - Proprietary
©2018 TOKA - Proprietary

Attribution fixes?



Intermediate machines Policy & Law

Log policy & regulation

crypto-networks

Packet level personally identifiable information (PLPII)???

Toka Cyber Builders

A National Cyber Transformation Methodology

Asymmetric Strategy & Concept of Operations

Global partnerships, Alliances, Laws, Regulations

Advanced Persistent Defense

Campaign Leaders

State Rivals

Multi-level campaigns in and out of cyber space

Non-state Rivals

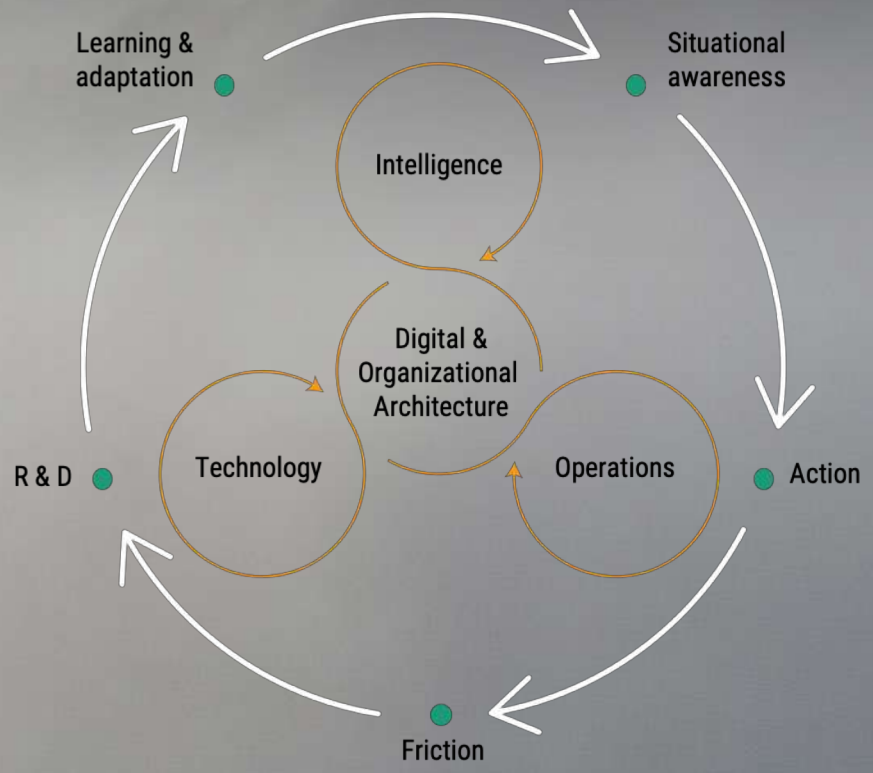
Tailored asymmetric brute force & deception

Tailored Deterrence

Toka Cyber Builders

Building a global Web 3.0 framework

- Attribution alliances - Global information sharing (Cyber CDC) - Intelligence & investigations, global signature repository
- Global red lines – CI Protection Arrangement
- Global cyber lawfare information sharing
- Global cyber-economics regime - Cyber S&P
- Regulation & innovation for responsible social media platforms



Summary

- The global **cyberspace insurgency** has created an **asymmetric** challenge – both local & global.

- Let's fix attribution **& trust** – a framework of legal, policy, technical fixes and adopt the idea of **global Web 3.0 arrangements.**

Toka Cyber Builders


Mail: yaron@tokagroup.com
Mobile: +972-52-9205349
Thank you
Toka
Cyber
Builders