Open CSIRT Foundation

Cyber security and the Internet – why give a damn ?

And – how **you** can make a difference.

Don Stikvoort MSc CMTNLP

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Imagine …

What world do you want you
and your children to live in ?

Do you *care* to make a difference ?

Can you individually ?

Can you professionally ?

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Foolish questions ?

A wise man can learn more from a foolish question than a fool can learn from a wise answer.

[Bruce Lee, 1940-1973]

A fool thinks himself to be wise, but a wise man knows himself to be a fool.

[William Shakespeare, "As You Like It", 1599]

Imagine ...

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Can you individually ?

Can you professionally ?

Yes you can !

https://es.wikipedia.org/wiki/Archivo:Barack_Obama_at_NH.jpg

Whois Don Stikvoort

Ancestors from GR DE FR UK
1961   Born in NL
1965- Martial Arts
1986   MSc physics
86-88 Army officer
1988   Journey on foot   }
89-00 Internet pioneer   } *wake up calls …*
1991- Security pioneer   }
1998   Entrepreneur : young and eager
1999- Human Arts
2005- Slowly waking up   } *more wake up calls …*
2011   50 and top of success ?
       ➔ 2021 FIRST Hall of Fame
20-23 Confused & angry   } *finally waking up ?*
23-   Who knows ? Life is a rollercoaster ride …

I promise to speak truth today. But what is, truth ?

I could be wrong ... or right. Or somewhere in the middle.

You could disagree and be right.

We could disagree yet both be right. Truth is paradoxical.

Respect be with you no matter which. I stopped judging a long time ago.

Your theory is crazy, the question is whether it's crazy enough to be true.

[Niels Bohr, 1958]

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A propos Open CSIRT Foundation

Security pros have great ideas ...

... but to go beyond idea and make it a success ...

That's why we started in 1996

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Traceroute OCF

Not-for-profit foundation (NL law), born 21 October 2016

Founding fathers: 3 pioneers of the European CSIRT community

Goal is *improving - in the public interest - cyber resilience, by promoting cooperation and development of "cyber security incident management" and related matters ... promoting and facilitating research, training, education, standardization and "best practices".*

12 July 2023 : TF-CSIRT integrated into OCF

Governance:
◦ Board of Directors: 4 appointed members
◦ Board of Commissioners: 6 members of which 3 elected
◦ TF-CSIRT Steering Committee: 7 elected members

Global scope

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OCF supports SIM3 and the SIM3 community

Security Incident Management Maturity Model
- For (self) assessment, membership criteria & accreditation/certification purposes
- Used all over the world now
- Free for internal and not-for-profit use
- For CSIRT/CERT, soon also for SOC, ISAC and PSIRT

Certified SIM3 Auditors
- 3-day certification training by OCF
- Auditors have to meet annual standards
- Ethics apply, complaints to OCF
- 130+ auditors worldwide, expanding

ENISA Intermediate not reached

powered by OpenCSIRT SIM3-check
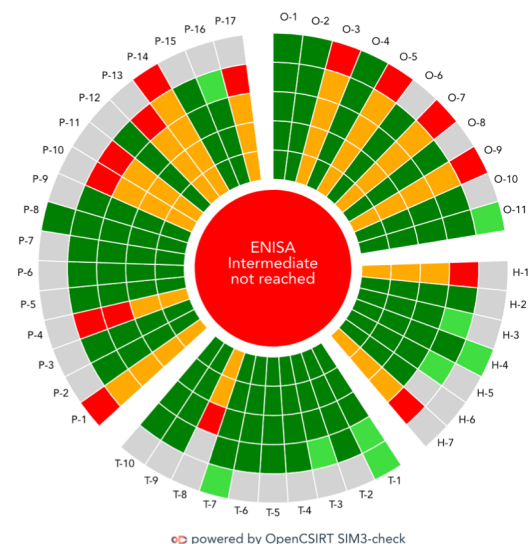
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OCF supported community : TF-CSIRT (Europe+)

The Europe+ community of CSIRTs (and SOCs, ISACs and PSIRTs)

Informally since 1993, formally since 2001

Membership:
- Listed (zero cost) — 204
- Accredited (normal membership) — 252
- Certified (optional) — 42
- Individual (merit based) — 21

Membership database is called Trusted Introducer :

https://www.trusted-introducer.org/

Working well together with FIRST (MoU based)

TF-CSIRT

OCF what else…

4gh : on invite, small scale, 2.5 day meetings of trusted security folks who all must be prepared to present.

Bright (young) people with great ideas ?

Understanding is slooooow process

1. Cognitive   Mind
2. Somatic   Body & Emotions
3. Beyond ?   Spirit ?
   Soul ?

Depending on the topic,
it can take years, decades, a Life time
...

[The more answers, the more ....]

Food for thought

Think. Do not judge.

And wonder for each slide :
Does the Internet play a role here ?
And security ?
You ?

What world ...

The five basic freedoms[*] :
- Freedom of press ➜ *media*
- Freedom of petition
- Freedom of religion
- Freedom of speech
- Freedom to assemble peacefully

**Can you read what you want,
write what you want,
believe what you believe, and
meet and talk with who you want,
without fear ?**

Photo by Don Stikvoort, Namibia

[*] **First Amendment of the US Constitution**   (C) OPEN CSIRT FOUNDATION   **TLP:CLEAR**   15

What world ...

How do you want
your parents,
you yourself, and
your kids
to be treated by society ?

Human Dignity ➜

Human Rights

Photo by Robert Collins on Unsplash   (C) OPEN CSIRT FOUNDATION   **TLP:CLEAR**   16

What world …

Are your parents, you, and your kids respected and protected by the state you live in ?

Humans or expendable resources ?

They who burn books will also burn people.

[Heinrich Heine]

The greatness of a nation and its moral progress can be judged by the ways its animals are treated.

[Mahatma Gandhi]

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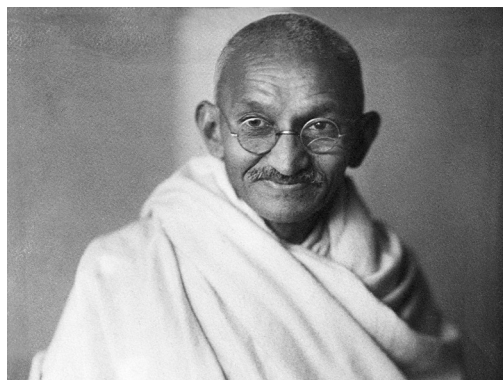
What world …

I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character.

I have a dream today!

[Martin Luther King Jr.]

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Yes you can !

History slides

Internet & security
history on white
background

Photo by Cristina Gottardi on Unsplash
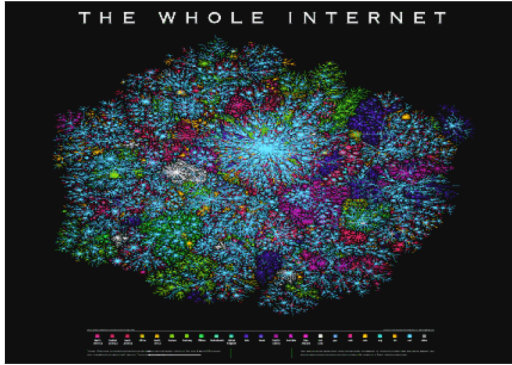
Badass history on
grey background

Photo by Kasia Derenda on Unsplash

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1988

1989

Gang War
in Cyberspace

1992

1995 – 1999
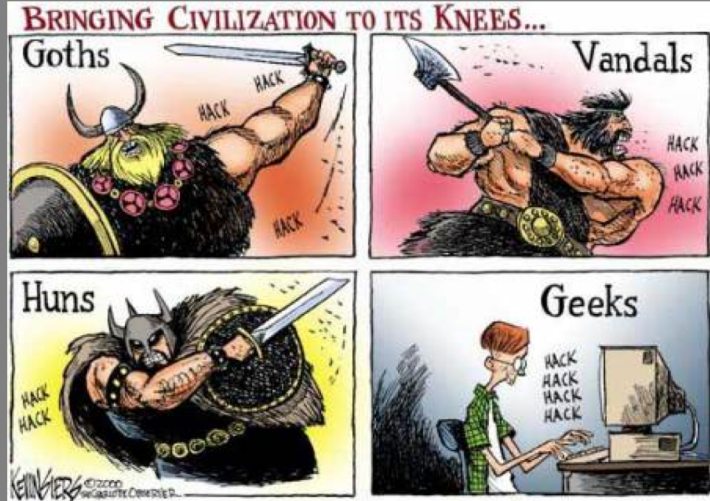
2007 and ongoing

2010

2011 and ongoing

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The last 10 years

Image by Gerd Altmann on Pixabay

Photo by Maximalfocus on Unsplash

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AI (i)

There's so much crap around about AI, including experts who only stare at their own navel, and entrepreneurs (a la Musk) who may be mostly interested in their own gain.

Geoffrey Hinton has been working on digital intelligence and AI for 50 years. I'd call him one of the few experts who has the insight and oversight to speak with authority. He recently resigned from Google in order to be able to speak freely. There's plenty of bad interviews with him. This is one of the rare good ones:

https://www.youtube.com/watch?v=Y6Sgp7y178k

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AI (ii)

Areas of concern for Geoff Hinton (starts at 8'10") :
- Taking away jobs: "In a decent society that would be great ... but the danger is that it will make the rich richer and the poor poorer. That's not AI's fault, that's how we organise society."
- "There's danger about AI making it impossible to know what's true, by having so many {perfect} fakes out there ... being swamped by these fake videos, and fake voices and fake images ..."
- Existential threat : "the chance that they get more intelligent than us, and they'll take over from us, they get control".

He also mentions the great potential benefits of AI (starts at 15'30"): "So they're going to be developed, there's no way that's going to be stopped." He pleads to put MUCH more effort into learning how to work with AI safely. (50/50 instead of 99/1)

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AI (iii)

Do you think AI will help us to do better Incident Management ?

Do you think it will help cyber criminals, and cyber terrorists and cyber warfare get "better" and more effective ?

Who is usually ahead of the other ?

And what about AI systems fighting each other in that arms race ? Does that make you feel comfortable ?

Add the Internet of Things. Add robotics. Add that we humans are way too slow in being able to handle even a fraction of this. Time to take this very seriously.

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Yes you can !

Let's look at some developments …

CREATE (Y)OUR FUTURE
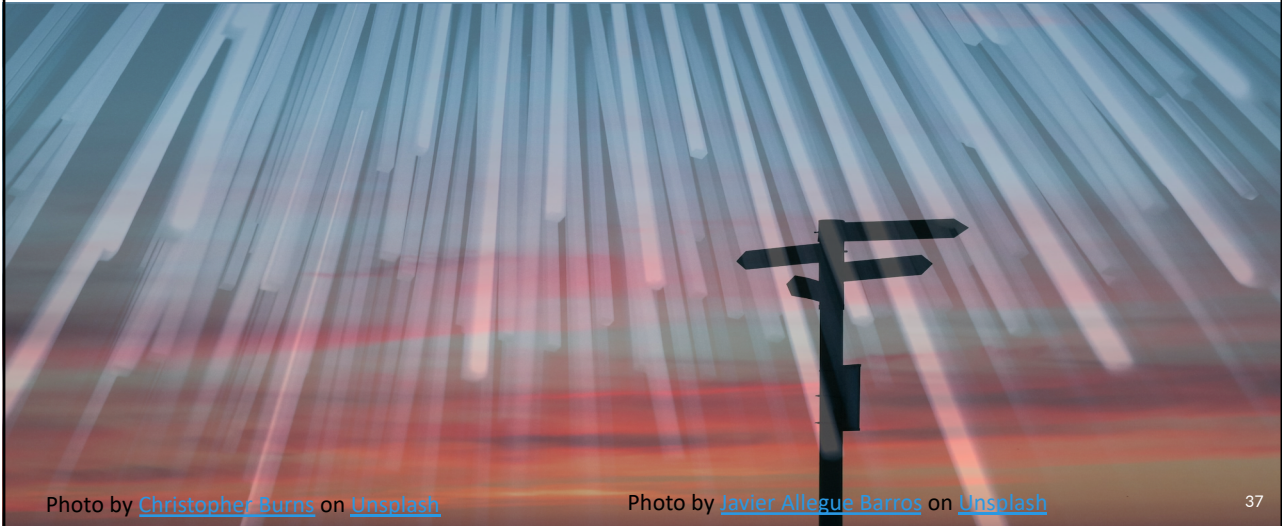
Photo by Christopher Burns on Unsplash   Photo by Javier Allegue Barros on Unsplash   37

Truth involves Paradox

"A seemingly contradictory statement"
Two sides of the same coin, e.g. life and death

How wonderful that we have met with a paradox, now we have some hope of making progress.
It is the hallmark of any deep truth that its negation is also a deep truth.
[Niels Bohr, 1885-1962]

Where there is negative thinking, let there be reflection to the contrary.
[Patanjali, 600]

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3 levels of power

1. Direct environment
2. National & corporate
3. Beyond the veil
   ... who owns the debts ?

Paradoxical thinking requires looking beyond the veil.

Cybercrime ...

More volume / money / advanced / harmful

More deeply rooted in all of society
◦ Crime
◦ Business & Finance
◦ Politics
◦ Warfare

Infosec : one step behind in the arms race
◦ Improve education at all levels
◦ Hire clever people
◦ Train them well
◦ Embed in society
◦ Enhance detection & rapid mitigation :
  measure, collect, SHARE

IT security …

Security engineering
- Get rid of the 30 year old password issue

(Legal?) demands on (product) securi
- Fasten your seat belts !
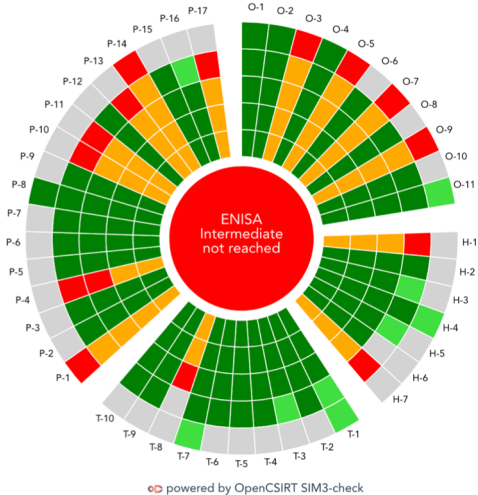
Individual protection versus logging and tapping

Must address AI, IoT and Robotics

Infosec : cooperation versus hierarchy
- Improve national and international "networks"
- Improve MATURITY ➔ e.g. SIM3
- Embrace BEST PRACTICES ➔ e.g. FIRST frameworks
- Detect, measure, SHARE

ENISA
Intermediate
not reached

powered by OpenCSIRT SIM3-check

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Economy …

World order is unstable : Position of US$? Economy ?

China, India et al – emerging world powers : yet internal tensions.

Ukraine war game changer ?

Middle East – always tensions, peak oil is a hoax, but oil is expendable.

Communism went under, is capitalism next, or ?

Think beyond the veil: **who** benefits ?

Infosec/CERTs : protect constituency interests first and foremost … rising tensions influence cooperation models
- Need for diversity when we cooperate
- CSIRTs are frontrunners: KEEP THAT UP
- CSIRT community MUST engage with politics, cyber diplomacy etc.

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Politics ...

Politics = how we agree to stick together in a country or region

Voters increasingly less interested – Athenian democracy at risk

Those without vote **are** interested (e.g. Middle East)

Increasing sense of insecurity

Contract between man and state at risk

Must address AI, IoT and Robotics

Must address climate & environmental threats

Infosec/CSIRTs : conflicts of interest
  ◦ Again, diversity in cooperations
  ◦ But can we help ? WE MUST REACH OUT AS TECHIES

KEEP CALM AND STICK TOGETHER

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Global politics ...

Balances of power changing

USA losing the lead

Russia is injured – which is dangerous

EU has great potential but stumbles along

China, India on the rise but are like volcanoe

Religious conflict is back with a vengeance

Must address AI, IoT and Robotics

Must address climate & environmental threa

Infosec : tool ... but ...

We ALL have influence

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Law …

Interpol, Europol etcetera
◦ Daunting task

Nautical law (at sea)

Internet law ?
◦ Where are the borders ?
◦ UN challenge ?

Infosec : leaving grey area
◦ More pro-active and law-aware, forensics, … ?
◦ Less A-team work ?
◦ Attribution not our job

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Ethics & Human Rights …

Interpretation of Human Rights varies wildly, but :
How do you want your kids to be treated by the world ?

Rich investors don't always score high on this scale

Inside most countries : increasing pressure on Human Rights

Must address climate & environmental threats

Infosec : with increasing importance of IT and security, we enter the field of ethics and Human Rights
◦ Examples Middle East, Russia, Wikileaks, Snowden, … … …
◦ "The fact that a person acted pursuant to order of his Government or of a superior does not relieve him from responsibility under international law, provided a moral choice was in fact possible to him." (Nuremberg Principle IV)
◦ Simply put ➜

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**Ethics made simple :
how would you explain
your actions and decisions
to your 7 year old daughter ?**

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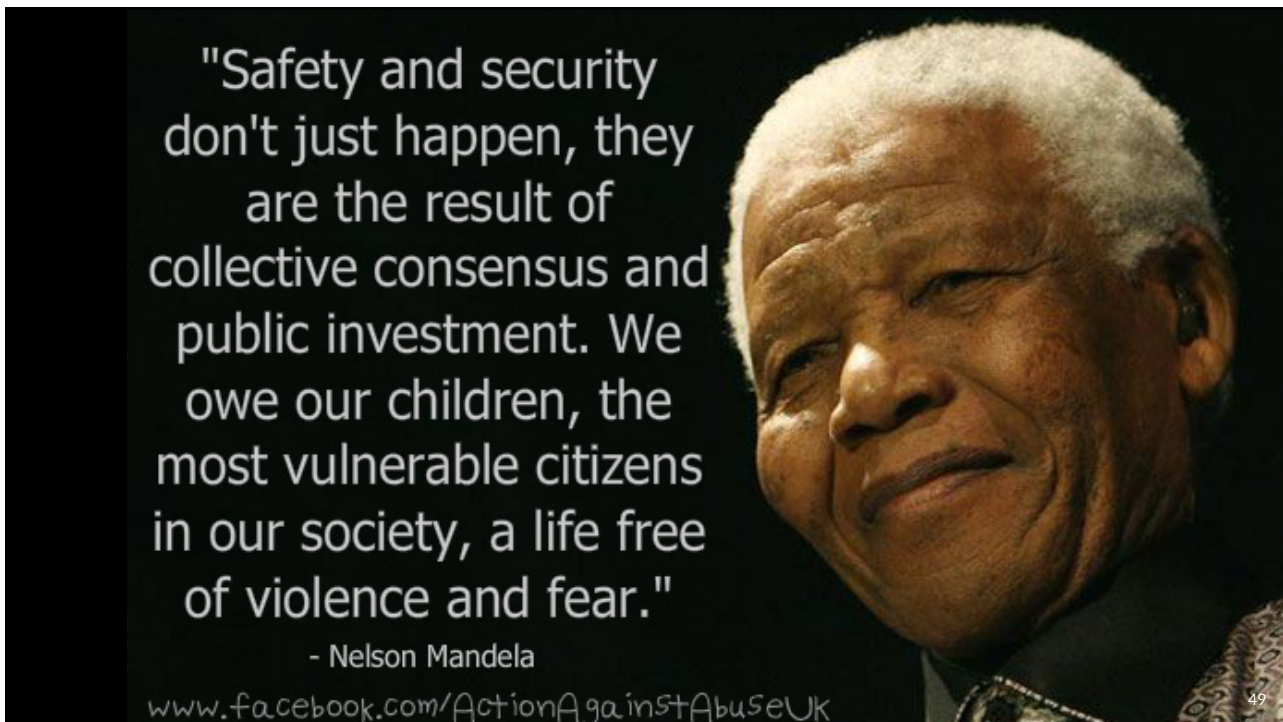
Can you individually ?

Can you professionally ?

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"Safety and security don't just happen, they are the result of collective consensus and public investment. We owe our children, the most vulnerable citizens in our society, a life free of violence and fear."
- Nelson Mandela
www.facebook.com/ActionAgainstAbuseUk

Arbitrary example (2016)

The Dutch executive cabinet endorsed

"the importance of strong encryption for Internet security to support the protection of privacy for citizens, companies, the government, and the entire Dutch economy",

Ard van der Steur, the Dutch minister of security and justice, wrote in the statement.

"Therefore, the government believes that it is currently not desirable to take legal measures against the development, availability and use of encryption within The Netherlands."

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Nerds are the future

You get it ?

The world needs you – just as you need the world

Most of us don't want to live on Mars

But what, what can I, simple citizen do ???
I am sooo small ...
The problems are sooo big ...

Well ...

Old African saying ...

"If you think you are too small to make a difference, try sleeping with a mosquito."

-His Holiness the 14th Dalai Lama

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"THIS IS A MOMENT IN HISTORY WHEN THE AVERAGE PERSON HAS MORE POWER THAN AT ANY TIME.
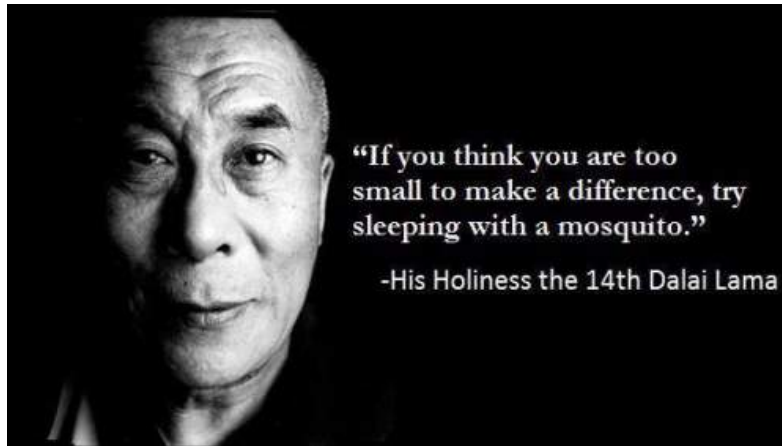
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Yes you can !

What does it take to SUCCEED in your efforts ?

1. Consciousness / awareness
2. Intent
3. Action & Result

What we think we become

[Siddhartha, 500 BC]

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Why give a damn ?

Cause You are the Future

**The world needs you –
just as you need the world**

Shape this world !

THANK YOU

Don@opencsirt.org

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