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Turtle
Sec

Patricia Aas

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C++ Programmer, Application Security

Currently : *TurtleSec*

Previously : Vivaldi, Cisco Systems, Knowit, Opera Software

Master in Computer Science

Pronouns: she/her

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My hobbies include:

- Reading election documents
- Petitioning more documents
- Imagining how to hack elections

I'm not cynical.
I'm an idealist.
I believe in democracy.

I also believe that election processes
have become more fragile,
even broken,
through the introduction of computers.

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So I am Annoying As a Service



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Embedded Ethics

EUROBSDCON 2019

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We have made a digital world
and we made everyone live there.

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They never had a choice.

And we have failed
to make them *literate*
in this world.



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When we fail them,
they often don't even understand
how we failed them.

Most journalists I talk to about election security
never write anything.

They don't understand what I'm saying.
They don't understand the implications.
And if they do,
they don't understand
how to communicate it to regular people.

We made a digital world.

And we struggle to protect it
because those that make decisions
don't understand it.

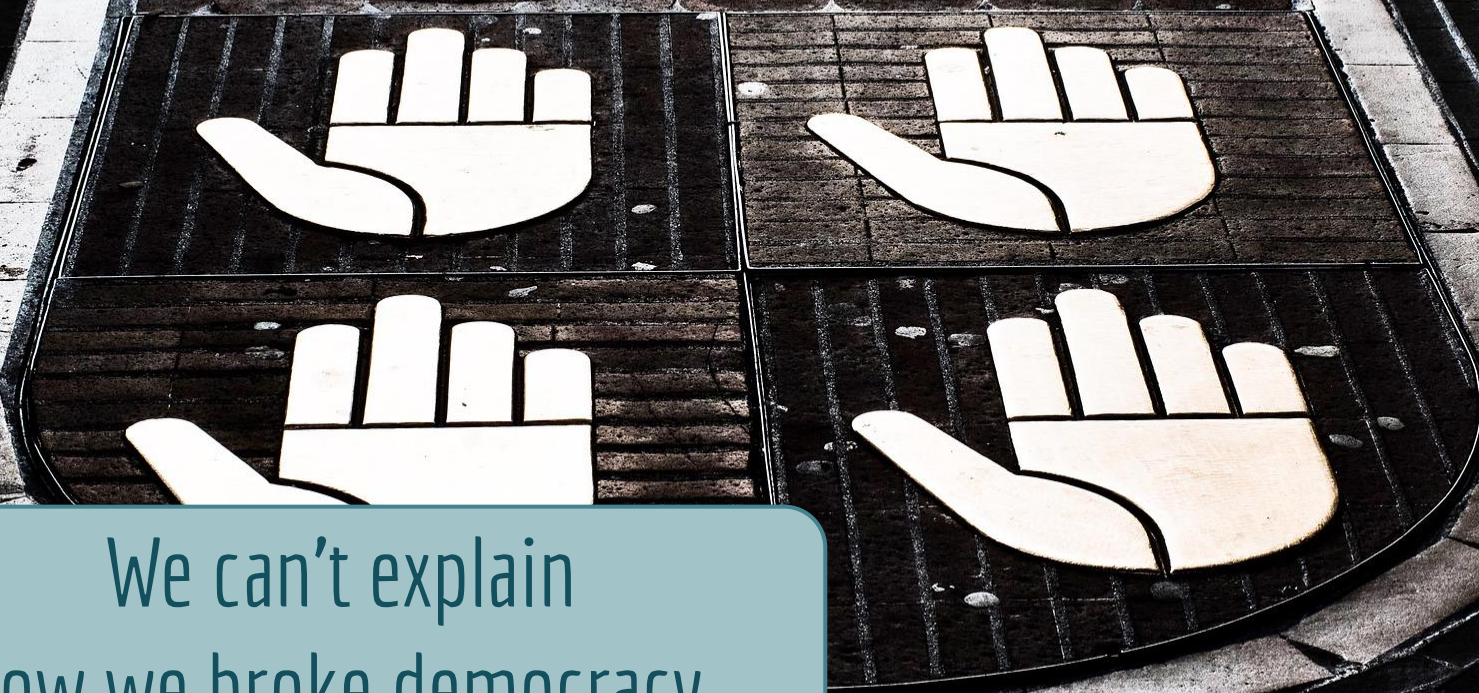
We sold a story that it's magic.

And now we can't explain what's wrong.

A person's legs, wearing dark blue jeans and blue sneakers, are walking across a crosswalk painted with rainbow-colored stripes. The stripes are red, orange, yellow, green, blue, and purple, running diagonally across the frame. The person is walking from the top left towards the bottom right.

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We can't explain
how we sold their privacy.



We can't explain
how we broke democracy.

We can't explain
how we embed devices in their bodies
that we don't fully understand
and we are not fully protecting.

We can't explain
how this white male dominated industry
keeps on creating things
that are unsuited for people of color or women.

We can't explain,
because they don't understand
what we're saying.



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*They don't understand
what we're saying...*



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...they don't even believe us

National Culture

Workplace
culture

Innate

Social

Conscious

Right vs Wrong

We don't do that

“Nobody else is saying anything?”

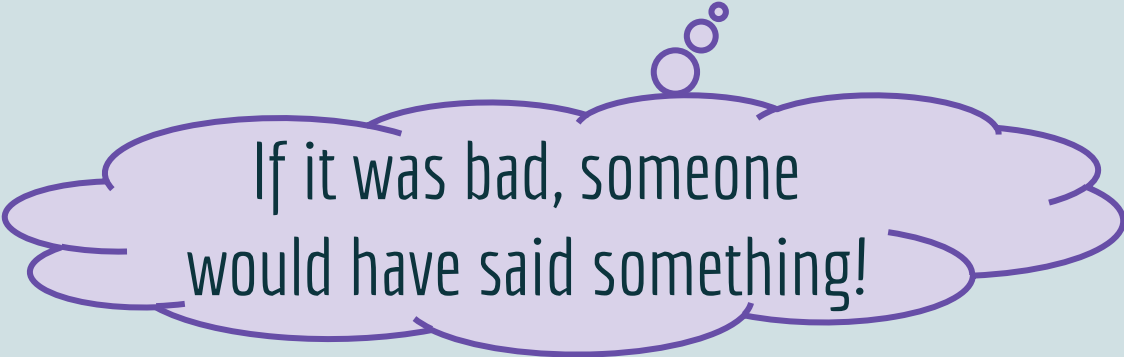
The Principle of Social Proof

“These people seem to think this is fine!”

“We’ve always done it this way!”

The Principle of Social Proof leads to...

Pluralistic Ignorance



If it was bad, someone
would have said something!



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If you are told by your boss
to do something unethical,
but legal,
what recourse do you have?



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We argue.
We do it.
Or we quit.

In the VW case
an engineer went to jail.

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“I was following orders”
is never going to win a trial.



How are we going to protect
whistleblowers?

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How are we going to protect whistleblowers?

They made Codes of Ethics
enforced by Unions or
Professional Associations

How do other disciplines do it?

We have no code of ethics.
We have no body to evaluate ethics.

Do we even *know*
if we are harming people
or democracy?

A large mural of a woman's face is painted on a weathered brick wall. The woman has dark hair and is looking directly at the viewer. The mural is partially obscured by a balcony with laundry hanging on it. In the background, other buildings and a Ferris wheel are visible.

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We are making products to “protect” children,
that are used
to control and abuse intimate partners.



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We are making image recognition software
that is used
to identify protesters.

We are building infrastructure
on hardware we can't inspect,
with binary blob drivers and firmware.

Regulation.

Talking with people that make laws...

They don't know how to regulate us.

They believe in our propaganda.

They believe in the objective truth of machines.



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There are some lights in the dark,
like GDPR.



NO Good REASON

But also so many false steps,
like the reversion of Net neutrality
or the EU copyright directive.

We are trapped in a situation where we are incapable of regulating ourselves, and unable to be regulated.

We are not able to have a public debate,
because the informed reporting is
practically non-existent.

Why did we not teach the population?

Does that even scale?

Can we teach them now?

In the 90s Norway had
“Hjemme PC Ordningen” and “Datakortet”
which were attempts at making the population computer
literate.

But did we interpret that computer literacy too narrowly?
Today most people can use a computerized device
- but do they understand it?



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The problems in tech are
fundamental.



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But difficult to grasp.

Boy meets girl.
Boy loses girl.
Boy tattoos
walls all over
the world to
woo girl again.
The End?

WRODSMTH

ACM Code of Ethics and Professional Conduct

1.2 Avoid harm.



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How did other professions
regulate themselves?

Norway has a history of powerful unions.
We could make a common Ethics Board.
We could protect whistleblowers.



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How can you break through
Social Proof?

- Could you justify this
to a journalist?

- What will experts say?

But if all else fails...

If rationality doesn't work...

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Perhaps try Annoying As a Service





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Questions?
Photos from pixabay.com

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