The Ethics Void

Mike Gerwitz

LibrePlanet 2018

"Us" vs. "Them"

''We''

"We" Are All Responsible

Technology Is Pervasive
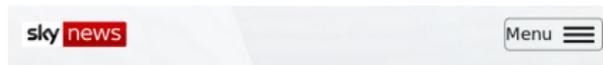
DEFECTIVE BY DESIGN.org

[5]

sky news

Menu ≡

Behind the scenes at Donald Trump's UK digital war room

Cambridge Analytica uses data from social media and credit cards to deliver "extremely individualistic targeting" for Mr Trump.

06:29, UK, Saturday 22 October 2016

[3]

[14]

We Know Where You Are, Have Been, Will Be

facebook
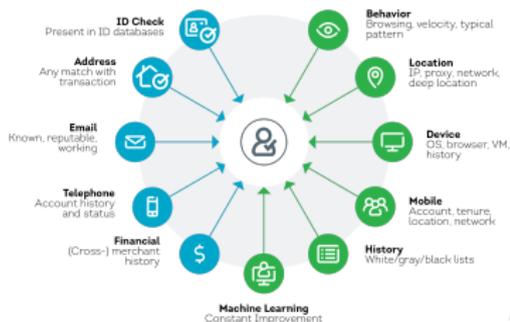
TransUnion Trustev

[22]

[2]

OnStar®

Ford
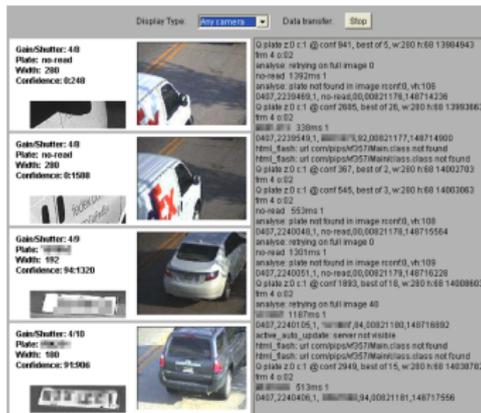
We Live Inside Your Home

[10]

We Observe and Influence Your Children

/ **CORY DOCTOROW** / 11:50 PM WED FEB 17, 2010

School used student laptop webcams to spy on them at school and home

[6]

The Washington Post
Democracy Dies in Darkness

The Switch

Google is tracking students as it sells more products to schools, privacy advocates warn

By **Andrea Peterson** · December 28, 2015

[17]

UK world sport football opinion culture business lifestyle fashion environment tech
home › world › europe   US americas asia australia africa middle east cities development

Germany

German parents told to destroy doll that can spy on children

German watchdog classifies My Friend Cayla doll as 'illegal espionage apparatus' and says shops and owners could face fines

Philip Oltermann

Friday 17 February 2017
16.53 GMT

ⓘ *Cayla, aged four, plays with a My Friend Cayla doll in the Hamleys toy shop in London. Photograph: Rob Stothard/Getty Images*

DATA CENTER   SOFTWARE   **SECURITY**   TRANSFORMATION   DEVOPS   BUSINESS   PERSONAL

Security

IoT baby monitors STILL revealing live streams of sleeping kids

[12]

BBC ≡ Menu ▾

NEWS

Toy firm VTech fined $650,000 over data breach

🕐 9 January 2018

[1...]

GETTY IMAGES

Electronic toymaker VTech will pay $650,000 (£480,000) to settle charges that it failed to protect the privacy of children using its gadgets.

[21]

Any Of Us Can Get Involved With These Things

But only some of us are prepared for when these situations present themselves

Something Feels Wrong

Did Edward Snowden Act Ethically?

Did Edward Snowden Act Ethically?

Received **50 second standing ovation** during LP2016 keynote *before* he started speaking

[7]

Did Edward Snowden Act Ethically?

Contrast: Eric Holder had to promise that the US wouldn't seek the **death penalty** in a civilian trial

Moral Relativism

Descriptive Moral Relativism

Meta-Ethical Moral Relativism

No Universal Code of Ethics

Consequentialism

"The end justifies the means"

> *We hold these truths to be **self-evident**, that **all** men are **created equal**, that they are endowed by their Creator with certain **unalienable Rights**, that **among these are Life, Liberty, and the pursuit of Happiness**.*

> —*United States Declaration of Independence*
> (emphasis mine)

Universal Declaration of Human Rights (1948)

__All human beings__ are born __free and equal__ in dignity and rights. They are endowed with reason and conscience and __should act towards one another in a spirit of brotherhood__.

—Article 1
(emphasis mine)

Universal Declaration of Human Rights (1948)

*No one shall be subjected to **arbitrary interference** with his **privacy, family, home or correspondence**, nor to attacks upon his honour and reputation. Everyone has the **right to the protection of the law** against such interference or attacks.*

—Article 12
(emphasis mine)

2018 ACM Code of Ethics and Professional Conduct

- Originally created in 1992
- Now being revised, still a draft

2018 ACM Code of Ethics and Professional Conduct

Computing and communication technology enables the collection and exchange of personal information **on a scale unprecedented in the history of civilization**.

—*§1.7, 1992 Code*
(emphasis mine)

Technology enables the collection and exchange of personal information **quickly, inexpensively, and often without the knowledge of the people affected**.

—*§1.6, 2018 Draft 3*
(emphasis mine)

2018 ACM Code of Ethics and Professional Conduct

*Computing professionals should **establish transparent policies and procedures** that **allow individuals to give informed consent** to automatic data collection, **review** their personal data, **correct** inaccuracies, and, where appropriate, **remove data**.*

—*§1.6, 2018 Draft 3*
(*emphasis mine*)

*Computing professionals should **only use personal data for legitimate ends** and without violating the **rights of individuals and groups**. [. . .] Only the **minimum amount of personal information necessary** should be collected in a system.*

—§1.6, 2018 Draft 3
(emphasis mine)

HIPAA

- Health Insurance Portability and Accountability Act of 1996
- Defines Protected Health Information (PHI)

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- Can **request own records for inspection**
- Can **correct information that is wrong**

HIPAA

- Health Insurance Portability and Accountability Act of 1996
- Defines Protected Health Information (PHI)

- Can **request own records for inspection**
- Can **correct information that is wrong**

- Requires **written consent for sharing PHI** outside certain parties
- Must disclose **minimum amount of PHI necessary** to provide service

Is HIPAA "Good"?

What Is "Good"?

Is This "Good"?

ID Check
Present in ID databases

Address
Any match with transaction

Email
Known, reputable, working

Telephone
Account history and status

Financial
(Cross-) merchant history

Machine Learning
Constant Improvement

Behavior
Browsing, velocity, typical pattern

Location
IP, proxy, network, deep location

Device
OS, browser, VM, history

Mobile
Account, tenure, location, network

History
White/gray/black lists

[22]

More Or Less "Good" Than HIPAA?
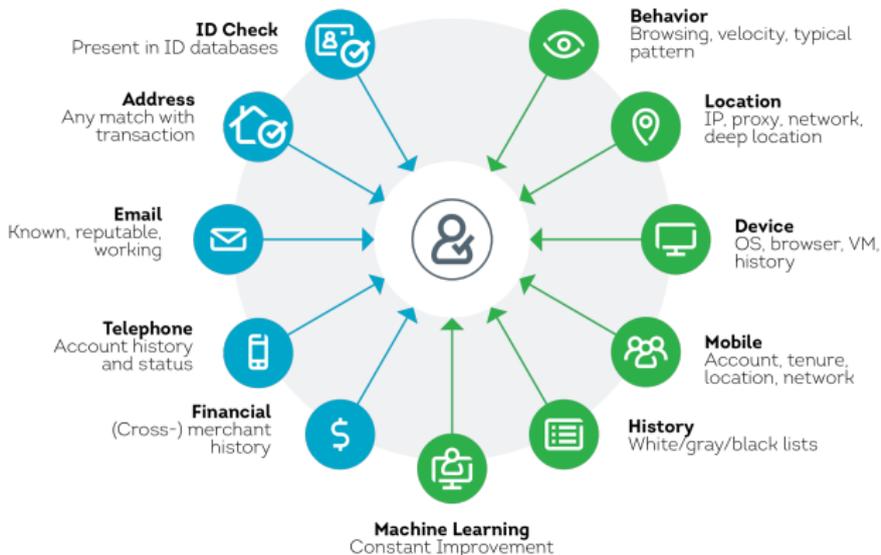
Is *This* "Good"?

kryptowire

KRYPTOWIRE DISCOVERS MOBILE
PHONE FIRMWARE THAT TRANSMITTED
PERSONALLY IDENTIFIABLE
INFORMATION (PII) WITHOUT USER
CONSENT OR DISCLOSURE

Tuesday November 15, 2016

[11]

This Is "Bad"

kryptowire

KRYPTOWIRE DISCOVERS MOBILE PHONE FIRMWARE THAT TRANSMITTED PERSONALLY IDENTIFIABLE INFORMATION (PII) WITHOUT USER CONSENT OR DISCLOSURE

Tuesday November 15, 2016

[11]

Universal Declaration of Human Rights (Privacy)

*No one shall be subjected to **arbitrary interference** with his **privacy, family, home or correspondence**, nor to attacks upon his honour and reputation. Everyone has the **right to the protection of the law** against such interference or attacks.*

—Article 12
(emphasis mine)

Privacy Is A Human Rights Issue

Personally Identifiable Information (PII)

Personally Identifiable Information (PII)

> [. . .] any information about an individual maintained by
> an agency, including (1) any information that can be used
> to **distinguish or trace an individual's identity**, such
> as name, social security number, date and place of birth,
> mother's maiden name, or biometric records; and (2) any
> **other information that is linked or linkable to an
> individual**, such as medical, educational, financial, and
> employment information.
>
> —*NIST SP 800-122*
> *(emphasis mine)*

- **Linked**—logically associated with other information about the individual
- **Linkable**—possibility of such an association

Best Security Practices Can Help to Guide Code of Ethics for Privacy

Organisation for Economic Co-operation and Development (OECD)

- Established in 1961
- 35 member countries
- *Guidelines on the Protection of Privacy and Transborder Flows of Personal Data*, adopted 1980
    - Referenced internationally
    - A foundation for the EU's Data Protection Directive

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

Limit PII collection; obtain lawfully and by fair means, with knowledge or consent of data subject

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

PII relevant to purposes for which they are used;
accurate, complete, up-to-date

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

Purposes specified before or at collection; only used for stated purposes

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

PII should not be disclosed or used for unspecified purposes, except with consent or authority of law

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

PII reasonably protected against unauthorized access, destruction, use, modification, or disclosure

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

Policy of openness about developments, practices, and policies for to PII; establish existence and nature of PII

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

Right to obtain data in reasonable and intelligible manner; challenge denials; challenge to erase or amend data

OECD Guidelines

- Collection Limitation
- Data Quality
- Purpose Specification
- Use Limitation

- Security Safeguards
- Openness
- Individual Participation
- Accountability

Data controller should be accountable for complying with measures that give effect to these principles

Framework Code of Ethics: Transparency

Transparency in data collection; transfer; use; and methodology, with a clear and fair procedure to inspect and amend those data, both raw and derived

Framework Code of Ethics: Transparency

Transparency in data collection; transfer; use; and methodology, with a clear and fair procedure to inspect and amend those data, both raw and derived

- User must be made aware *in an apparent and intelligible manner*
  - Even for non-PII
- Must be transparent with algorithms used for data processing
- Compromise of data by an attacker counts as a "transfer"

Framework Code of Ethics: Consent

Explicit consent to collection, transfer, and use of both PII and any data not offered by the user

- PII must *always* be consented
- Data explicitly entered by user is consented to first party
- *Any* data transferred to third parties must be consented

Why Don't All Businesses Follow These Guidelines?

Surveillance Capitalism

"More Relevant Customer Experience"

Strong Influence Over Your Opinions and Actions

Universal Declaration of Human Rights: Opinion

*Everyone has the right to **freedom of opinion and expression**; this right includes **freedom to hold opinions without interference** and to **seek, receive and impart information and ideas** through any media and regardless of frontiers.*

—*Article 19*
(emphasis mine)

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You Can, But Should You?

- "We're following the law, so we must be ethical"
  - The law is a *baseline*
  - It may even be *completely misguided* or *unethical* to some (moral relativism)

You Can, But Should You?

- "We're following the law, so we must be ethical"
  - The law is a *baseline*
  - It may even be *completely misguided* or *unethical* to some (moral relativism)

- You may be collecting data "for" the declared purpose, but do you really need it?
  - Is there *actually* a technical *need*?
- "Legitimate" in ACM Code of Ethics falls short

Example:

Can You Use GPS Anonymously?

[8]

GPS Only *Broadcasts*

[8]

[16]

- Even some GPS mapping programs can work just fine *without* network access (e.g. OsmAnd)

Software Often Betrays Users

MoviePass CEO proudly says the app tracks your location before and after movies

Posted Mar 5, 2018 by *Devin Coldewey*   [4]

> *We watch how you drive from home to the movies. We watch where you go afterwards.*
>
> *—Mitch Lowe, MoviePass CEO*

What was that about
transparency and consent?

Programs That Keep Secrets Aren't Transparent or Safe

- True transparency and consent **requires** ability to inspect **source code**
- Users must be **able to compile the code** to have confidence that it **actually represents the program being run**

Programs That Keep Secrets Aren't Transparent or Safe

- True transparency and consent **requires** ability to inspect **source code**
- Users must be **able to compile the code** to have confidence that it **actually represents the program being run**

The only reason to hide source code is to keep secrets from the user!

Keeping Secrets $\equiv$ Keeping Control

- Ability to build form source gives the user the ability to **modify the program** and **reclaim control**

Universal Declaration of Human Rights

All human beings *are born* *free and equal* *in dignity and rights. They are endowed with reason and conscience and* *should act towards one another in a spirit of brotherhood.*

—*Article 1*
(emphasis mine)

Universal Declaration of Human Rights

> ***All human beings*** *are born **free and equal** in dignity and rights. They are endowed with reason and conscience and **should act towards one another in a spirit of brotherhood***.

—*Article 1*
(emphasis mine)

- Is it dignifying to have your privacy stolen from you?
- Has everything covered been in the spirit of brotherhood?

*Everyone has the **right to life, liberty** and security of person.*

—*Article 3*
(emphasis mine)

***No one shall be held in slavery or servitude**; slavery and the slave trade shall be prohibited in all their forms.*

—*Article 4*
(emphasis mine)

The User Is Held In Servitude

Philosophy of Control

Don't Ask   **Do Ask**

Philosophy of Control

Don't Ask

- What should we **allow** the user to do?

Do Ask

Philosophy of Control

Don't Ask

- What should we **allow** the user to do?

Do Ask

- What should we **empower** the user to do?

Philosophy of Control

Don't Ask

- What should we **allow** the user to do?

- How should we **commodatize** the user?

Do Ask

- What should we **empower** the user to do?

- How should we **build mutual relationships** with the user?

Philosophy of Control

Don't Ask

- What should we **allow** the user to do?

- How should we **commodatize** the user?

- How do we **lock in** the user?

Do Ask

- What should we **empower** the user to do?

- How should we **build mutual relationships** with the user?

- How do we **earn the respect of** the user?

Philosophy of Control

Don't Ask

- What should we **allow** the user to do?

- How should we **commodatize** the user?

- How do we **lock in** the user?

- How do we **capitalize**?

Do Ask

- What should we **empower** the user to do?

- How should we **build mutual relationships** with the user?

- How do we **earn the respect of** the user?

- How do we **socialize**?
- How do we **act in a spirit of brotherhood**?

User Freedom ≡ Software Freedom

Software Freedom Is A Human Rights Issue

Moral Imperative

Categorical Imperative

Act as if the maxims of your action were to become through your will a universal law of nature.

—Immanuel Kant

What About Moral Relativism?

Normative Moral Relativism

Holds that, because nobody is right or wrong, we ought to tolerate the behavior of others even when we disagree about the morality of it

We should fight for what we think is right!

But we won't always agree universally.

*Everyone has the right to **freedom of opinion and expression**; this right includes **freedom to hold opinions without interference** and to **seek, receive and impart information and ideas** through any media and regardless of frontiers.*

—Article 19
(emphasis mine)

Framework Code of Ethics: Serve the User

Serve the user, not oneself

A Moral Foundation: The Four Freedoms

0. Run program for any purpose
1. Study and modify to suit your needs
2. Share with others
3. Share changes with others

A Moral Foundation: The Four Freedoms

0 Run program for any purpose

1 Study and modify to suit
   your needs

2 Share with others

3 Share changes with others

Corollary:
Development model for creating
potentially higher-quality software

A Moral Foundation: The Four Freedoms

0. Run program for any purpose
1. Study and modify to suit your needs
2. Share with others
3. Share changes with others

Corollary: "Open Source" Development model for creating potentially higher-quality software

Why Is "Open Source" Popular?

- "Given enough eyeballs, all bugs are shallow" (Eric S. Raymond, "Linus's Law")
  - A successful development model
  - *But it's not always true*

Why Is "Open Source" Popular?

- "Given enough eyeballs, all bugs are shallow" (Eric S. Raymond, "Linus's Law")
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- Other people can fix bugs for me

Why Is "Open Source" Popular?

- "Given enough eyeballs, all bugs are shallow" (Eric S. Raymond, "Linus's Law")
    - A successful development model
    - *But it's not always true*

- Other people can fix bugs for me

- Everyone else is doing it!
- Looks good on a résumé / recognition
- Attract talent to business
- Feels good to give back

Open Source Misses the Point

Open Source Perpetuates the Void

Conformity Bias / "Groupthink"

================================

Which line is as long as the first?

(1)   ==============================

(2)   ================================

(3)   ============================

Solomon Asch, "Opinions and Social Pressure"

People Follow Their Community and Leaders

Don't open source anything that represents core business value.

— Tom Preston-Werner, GitHub Founder
"Open Source (Almost) Everything"

92% Americans Satisfied With Own Moral Character

[18]

75–80% Think They're More Ethical Than Peers

Moral Myopia

Difficult for ethical issues to come into focus

Ethical Fading

Distancing self from unethical implications

Moral Disengagement

Creating another reality to rationalize actions

Don't Be Judged By Your Inaction

Framework Code of Ethics: Be Mindful

Be mindful of issues that give rise to consequences in violation of these principles and act in good faith to mitigate those issues

- Continuous education (self and corporate)
- Make ethics part of your development process
- Ask yourself: "Am I behaving ethically?"

Framework Code of Ethics: Empower Others, Recursively

Impart your knowledge, skills, and experience to empower others, recursively.

- Teach others how to apply these principles
- Teach others how to teach others
- Advocate for what is important to you

Framework Code of Ethics

0. **Serve the user**, not oneself

1. **Transparency** in data collection; transfer; use; and methodology, with a clear and fair procedure to inspect and amend those data, both raw and derived

2. **Explicit consent** to collection, transfer, and use of both PII and data not offered by the user

3. **Be mindful** of issues that give rise to consequences in violation of these principles and act in good faith to mitigate those issues

4. Impart your knowledge, skills, and experience to **empower others**, recursively

Pragmatic Ethics

Societial norms and morals evolve as a result of inquiry

"We"

Free Software Advocates

Educators

You.

Mike Gerwitz
`mtg@gnu.org`

Slides Available Online
`https://mikegerwitz.com/talks/ethics-void`

More Information: The Surreptitious Assault on Privacy,
Security, and Freedom
`https://mikegerwitz.com/talks/sapsf`

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