The State of Free Software for Healthcare

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GNUHealth CON 2019

What is 'Free Software'?

Free of Charge
Gratis

...but not Free
(as in Freedom)

A Matter of Trust

If you dont know anything, you have to believe everything

Your privacy and the protection of your data is important for us

We treat your data in accordance to GDPR

A Matter of Trust – the reality

Vivy App, Electronic Health Record (closed source, gratis)
- more than 100.000 installations

- severe security issues detected one day after launch

- shares personal data with 3rd party tracking tools
  (mixpanel, crashlytics)

- promoted (and paid for) by 16 german health insurances

Summary: https://www.heise.de/security/meldung/Vivy-Gravierende-Sicherheitsmaengel-in-Krankenkassen-App-aufgedeckt-4207260.html

A Matter of Trust – the reality

Ada Health App (closed source, gratis)

- more than 5.000.000 installations

- unique tracking ID

- shares personal data and symptoms with 3rd party tracker

- shares health insurance with Facebook

Source: https://www.heise.de/select/ct/2019/22/1572017015632233

Once the data is in the wild.....

Personal Tech

Google brings its secret health data stockpiling systems to the US

Remember the UK DeepMind scandal? No?

By Kieren McCarthy in San Francisco 12 Nov 2019 at 00:28   45 💬   SHARE ▼

Updated Google is at it again: storing and analyzing the health data of millions of patients without seeking their consent - and claiming it doesn't need their consent either.

Google has data of millions of americans across 21 states

Neither patients nor doctors have been told about the project and have not given their consent to Google being given access to their health data.

Source: https://www.theregister.co.uk/2019/11/12/google_health_data_stockpiling_us/
        https://www.bbc.co.uk/news/health-36723486

And on the desktop?

The data protection officers of the german federal and state governments …..

….see little options to use Microsoft's Windows 10 operating system in a legally compliant manner.

Hacker Magnet Healthcare

COMPUTERWOCHE
VOICE OF DIGITAL

Security

Gesundheitsdaten gefährdet

Hacker-Magnet Healthcare-Branche

09.12.2019   Von   Rüdiger Weyrauch (Experte) ▾   FOLGEN   IDG EXPERTEN NETZWERK

- Healthcare is part of critical infrastructure

- Every device on the network is a target

- monetarize patient and health data

- Research results

- large datasets (clinical studies)

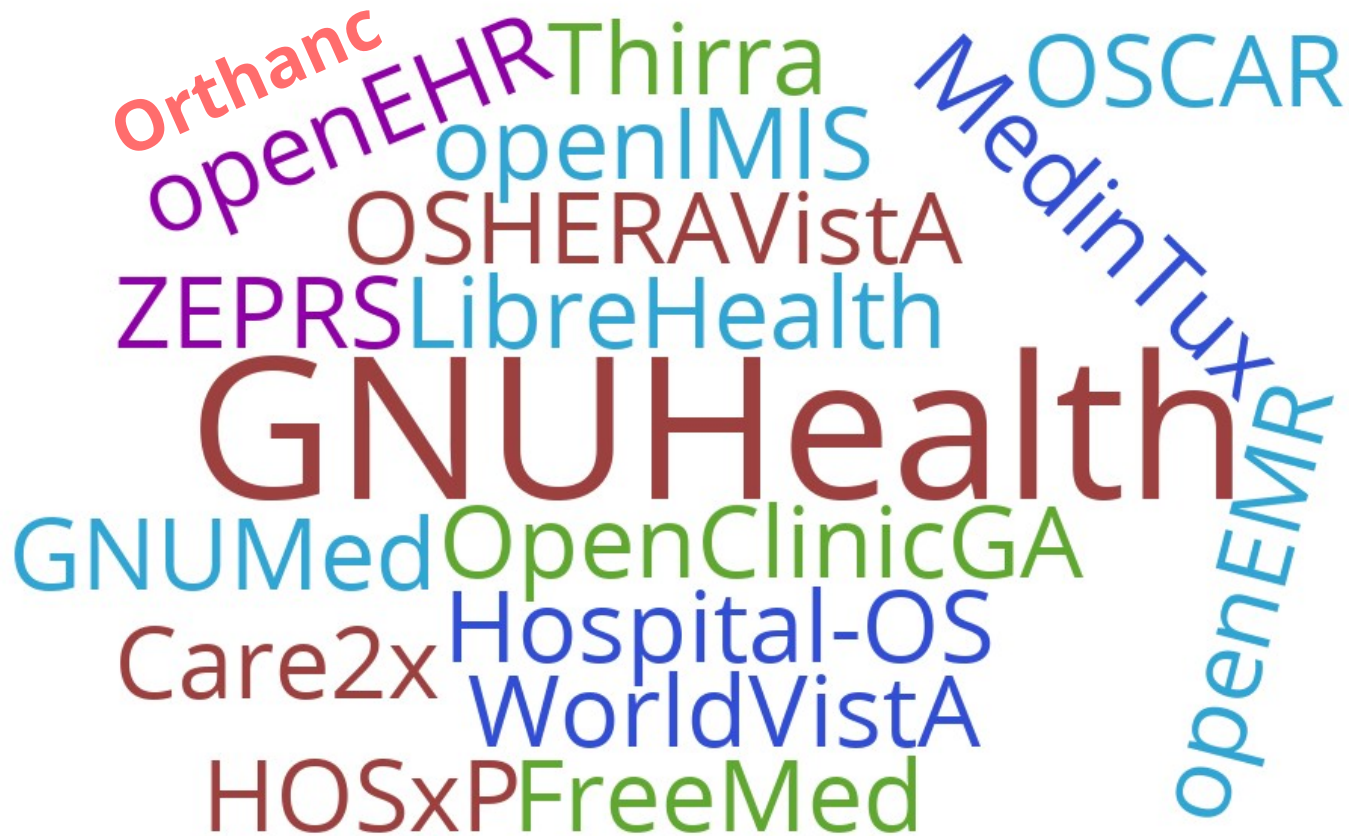**Security by obscurity is not an option!**

https://www.computerwoche.de/a/hacker-magnet-healthcare-branche,3624044

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Digital Sovereignty

In order to have digital sovereignty,

you need full control over your software stack

(and ideally over your hardware as well)

Run

Distribute

Study&Change

Distribute with changes

"Free" Software for Healthcare

"Open" is not always free

- builds on top of proprietary technology

- hidden locks, e.g. at time of upgrade

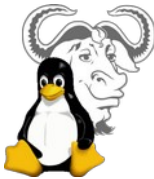https://www.gnu.org/philosophy/when-free-depends-on-nonfree.html

GNU Health - a full, free software stack

Official GNU Package, from the Free Software Foundation

Open Documentation

Relies on free technology

Friendly community

Free vs. proprietary software development

Typical Closed Source Model

- Over-engineered software
- Lobbying. Slow.
- Up front license fees
- Maintenance based on licences
- High TCO

It's all about –
VENDOR REVENUE

Business Open Source Model

- Proven, extensible enterprise software
- Collaborative. Fast.
- NO license fees
- Annual subscription for what you use
- Lower TCO

It's all about –
THE CUSTOMER

FUD spread by ....

Free Software is coded by nerds in back rooms

The quality of code is bad

Anyone can change anything

There is no support

Free Software is unsecure

Free software has less features

You not get fired for buying (IBM | Microsoft | SAP|...)

Push vs. Pull

- Proprietary Software is pushed into your organization

- Free Software needs to be pulled in

- Lack of understanding

Summary

- Medical data require highest security standards

- Proprietary Solutions may not be trustworthy

- Full control over software stack is the basis for Security and Freedom

Thank you!

Questions?