who can you trust

?

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about: me

free IT Consultant, Teacher and Free Software Developer, Germany

knowledge in Software development, Computer engineering
and social sciences

specialized on
- Free Software
- Wireless Mesh Community Networks

interested in
- adaptation of IT solutions to existing scenarios
- role of Free Software for bridging the digital divide
- privacy issues and social responsible IT usage

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menu

about trust

how to create a trustworthy eSolution

who can you trust ?

about trust

Trust

"Trust is one of the most important and essential features of the modern world. Without it, most human activities - from interpersonal relationships and mailing letters to boarding aircraft and taking medicines-would grind to a halt like machines drained of oil. Many institutions, from science to religion, have been shaken recently by controversies involving trust. Yet trust is difficult to examine in a comprehensive and systematic way."
Trust Institute at Stony Brook University,
http://www.stonybrook.edu/trust/

Lucas Cranach, Adam and Eve, 1526
img-source http://www.courtauld.ac.uk

Trust

Trust is

- neurophysiological reaction
- **triggered by** hormone **Oxytocin** (acts as a neurotransmitter in the brain) Kosfeld M et al. 2005. Oxytocin increases trust in humans. Nature 435:673-676

- we can trust anybody with the right amount of Oxytocin
  - (yet to be proved)
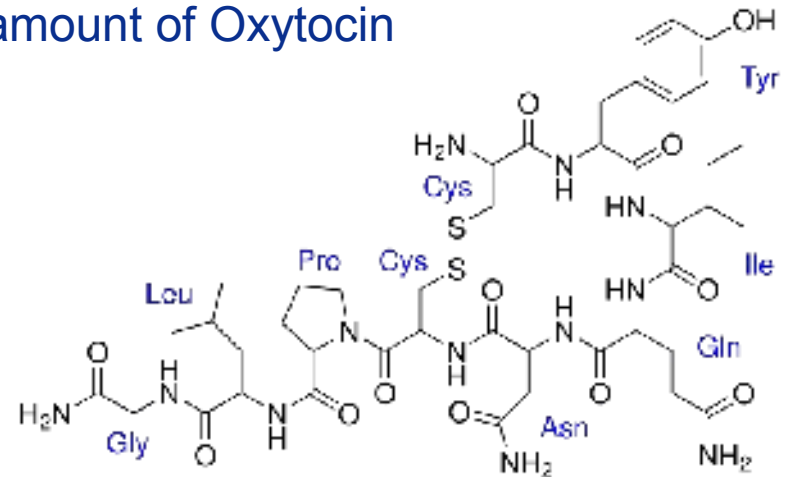
gladly other definitions available…

img-source http://www.wikipedia.org

Trust

Trust is

- a mechanism to reduce social complexity (Luhmann)
- required if rational reasoning is not possible
- **enables reasoning by intuition**

Trust is

- **belief** in honesty, benevolence and competence
- no external measurement possible

Trust is

- hard to claim and **easy to loose**
- if competence was the reason to loose the trust, its easiest to recover

img-source http://www.h4x3d.com
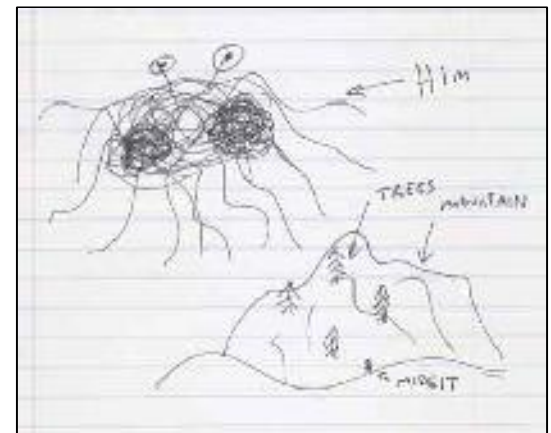
Trust

in this concept,

- can we trust computers, eSolutions, non-humans, non-living artifacts?

trust in the creators of those artifacts

- **computer**: **trust the company-employees**, the manufacturers, engineers, the marketing division, the software engineers who created the running software etc.

- stone: trust the flying spaghetti monster (or whatever we like)

    … some only trust the spaghetti monster

img-source http://www.wikipedia.org

Why we trust computers?

they often **don't do what we expect** them to do

shouldn't we stop trusting the people who create those things?
- at problems they mostly clame the reason was
    - between your desk and your chair
    - cause of conflicting/malicious third-party software
    - last, a problem on their side they didn't knew about before, sorry
- we believe that, cause we are incompetent ourselves

it's easy for 'them' to gain our trust again, cause it was lost based on their missing competence (so they say)
- we have **often no choice** to not use 'their' solutions, so it's better if we trust them (also if we know better, we just ignore the reality)

img-source http://www.cs.scranton.edu

Trust

has a lot of implications related to

- Security
- Privacy
- Freedom
- …

you have to trust your eSolutions,
    else you will loose

- Security
- Privacy
- Freedom
- …

but how to establish a trustworthy eSolution?

call ++1 503 619-0562.

img-source http://midnightjester.files.wordpress.com

Trusted Computing Group

started by AMD, Hewlett-Packard, IBM, Infineon, Intel, Microsoft, and Sun Microsystems (now many more)

- TPM (Trusted Privacy Module)-chip on your computer
- operating system might ensure that **only 'safe' (signed) software** is able to run

Trusted computing? Treacherous computing!

- who should your computer take its orders from?
- TPM might stop your computer from functioning as a general-purpose computer
- DRM (Digital Restrictions Management)-solutions not only for music, for all kind of software, of documents etc.
  see http://www.gnu.org/philosophy/can-you-trust.html for more details

img-source http://www.wikipedia.org

how to create a trustworthy eSolution

getting interested in an eSolution

how come?

- marketing
- founding
- peer pressure

but maybe you are fine with the current solution

- you understand the process,
  so you know who to trust
- might give you and your clients
  more freedom and confidentiality
- might be cheaper

Don't trust the eHype!

"… you can turn it on remotely via the net. You can even monitor the wash cycle, diagnose faults and download new washing programmes from the dedicated website."

text and img-source http://www.lginternetfamily.co.uk

establishing an eSolution

you have to find a provider for your solution

- but you don't know what you really want / need

- it's hard to get what you want
    - 83% of all eSolutions **don't work** as expected
    - 67% of all eSolutions **won't get ready in time**
    - 78% of all eSolutions **cost more** than expected
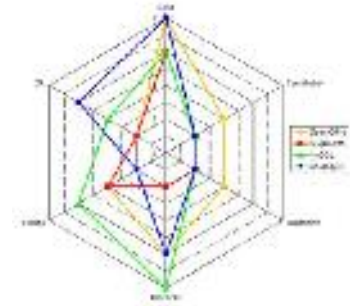
you have to trust that the solution **provider really cares more about you** than about his interests / his margin

- that's an illusion

img-source http://blog.snaplogic.org
data-source http://not.to.be.trusted

establishing an eSolution

Who can you trust?

- Microsoft (evil) ?
  - transfers information about your computer to Redmond, changes licenses of your software with automated security updates
- Gmail / Google (not evil) ?
  - scans all your emails to give you nice advertisements
- JAP - Anonymizer (fight against the evil) ?
  - had a built-in backdoor in one release
- yourself ?
  - you know that you don't know enough

Help needed!

- **consultancy** is required, if not trusted, than at least **independent**
- use **free software** with **open standards**, to change the supplier later

img-source http://www.copyblogger.com

using an eSolution

Trust, that

- **the solution does what she claimed**
- the solution doesn't interfere with your required workflow
- you got a solid solution
  - databases should be kept consistent
  - backups are made
  - ...
- there are no hidden functionalities, backdoors, leaks

or you use **free software and open standards**

- **independent developers** are able to look into the code
- you **might change the solution** if standards are public

img-source http://www.pchell.com
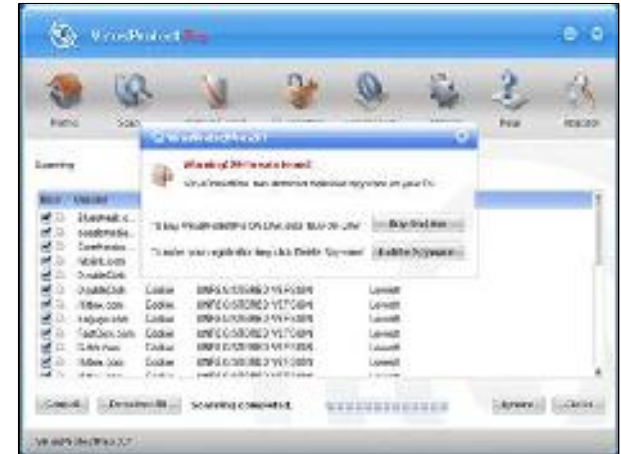
maintaining an eSolution

Trust, that

- **the solution provider cares about (your) problems**
    - security updates available
    - early announcements of problems are public

- you have to trust your (local/remote) adminstrator
    - he has the power to change/control everything
    - he can become the most powerful person in your organisation
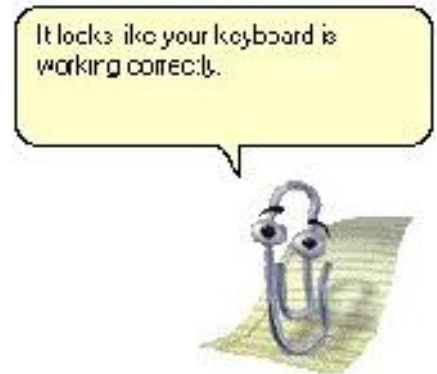
check if there is good **costumer support** available

- search for information about the solution, costumer-forums etc.

use software, which gives you the chance to change your administrator

img-source http://www.gizmodo.de

who can you trust ?

who can you trust?

… remember the good old times when we were
used to use snail-mail

you had to trust
- your pen
- your paper
- your letter-envelope
- the institution you give the letter
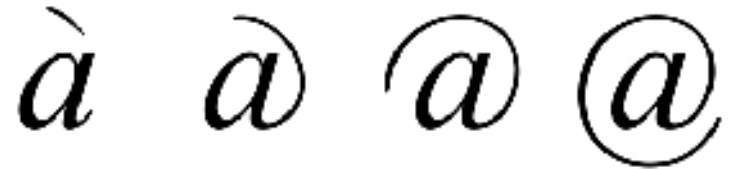- the law enforcement agencies,
the secret services, …

at all a "small" (local) trust-chain

39
cents

"It gots to go were
it gots to go"

D.O.O.P mail

img-source http://worth1000.com
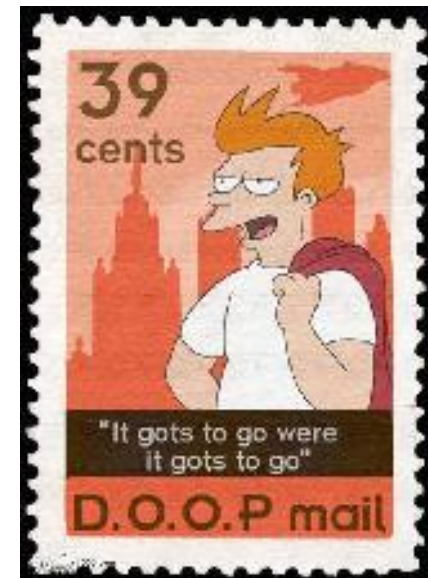
who can you trust?

sending an eMail is far more complex …

you have to trust
- the operation system/software provider
- your local (third-party, hidden) software installations
- your email client program
- your local administrator, he is able to read everything you write

once you send the mail you have to trust
- every possible service provider in the world
- every possible law enforcement agency in the world

you have no idea which ways you mail goes, so how to trust?

img-source http://www.wikipedia.org

email encryption

enable people to use encryption if they like to communicate with you!

gnupg, pgp
- **gnupg is a free software solution**
- frontends for Linux/MacOs/Windows available
- privat/public key pair, symmetric encryption

local mailclient
- http://gnupg.org/
- http://winpt.sourceforge.net/
- http://enigmail.mozdev.org

webmail
- http://firegpg.tuxfamily.org/
- http://www.freenigma.com/
  trustworthy?, see http://www.links.org/?p=130

img-source http://old.linux.kiev.ua

How to trust your eSolutions?

stop blindly trusting people who sell you a product

- especially don't believe they are incompetent if something is not working the way it should

what can you do?

- **use free software** as much as you can
- **use open standards** as much as you can
- **encrypt** as much as you can
  - offer your clients to communicate encrypted with you

don't establish eSolutions if you can't trust them

- think twice before doing the wrong first step
- use non-e-Solutions if you can

img-source http://www.h4x3d.com

Thank you !

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