Money

Money is a communication medium, one of the oldest and most important information systems known to us. Even writing has supposedly been invented for bookkeeping

With money we can measure the value of things: instead of exchanging things directly – say, three liters of milk for six eggs –, the value of milk and eggs can be expressed with money. Because of this translation, it is no longer necessary to exchange goods with other goods, we can directly pay with money, even though money itself has no value at all. Having this abstract *unit of account* lets us store it for the future:

«Geld ist […] nicht nur erstarrte Substanz, sondern auch erstarrte Zeit. Jeder Geldschein, der nicht in diesem Moment ausgegeben wird, stellt einen Wechsel auf die Zukunft dar.» – K. P. Liessmann

Trust and Reputation

Trust is a mechanism to reduce social complexity. Normally, when we meet a stranger, we have to be distrustful and constantly evaluate, whether the actions of this person reflect our expectations. If – over time – our expectations are constantly fulfilled, we can start to trust this person, we take a calculated risk making our relationship less complex.

Because trust takes so long to build up, we often rely on intuition, making a quick -- and possibly risky -- decision to trust a stranger to a certain degree. On the Internet, we rarely have any information available to make intiuitive decisions or the information could be fake.

Reputation is a social metric for predicting a person's future behavior – their trustworthiness. It takes a very long time to build up and only very few incidents to damage it. On the Internet, reputation is a currency: if a person can present us proof of a good reputation, this saves both parties time and energy.

Privacy

«Imagine a world where 24/7 everything you do is recorded, available to be looked up by anyone. That would undoubtedly change one's behavior in all sorts of ways. […] You can control people if you know something they don't want anyone to know.» – G. P. Stone

When we sit in a restaurant and talk to our vis-à-vis, our neighbors can listen to whatever we're saying. They don't know us, and thus – more importantly – can't leak information to our social circle, we are in control of the context.

But by the time a piece of information is on the Internet, it will probably stay there forever – the Internet does not forget. These stupid comments you left ten years ago in a forum may be connected to you, connections you would have never thought to make. There is also the risk of identity theft, where someone gathers all this information and pretends to be you.

Privacy should be handled with care:

«Making something that is public more public is a violation of privacy.» – danah boyd

Data Minimization

The best way to protect privacy is to avoid the unnecessary propagation of identity information through data minimization.

A web platform does not need to know the exact date of our birth, only whether we are old enough to use its services. Such a *derived claim* thus only says «yes, older than 16». If someone wants to prove he is employed, the party he reveals this fact to doesn't need to know where he works, nor does his employer need to know who he tells this to. How can this work?

Through the use of certificates, the receiver can be sure that the information is valid. Instead of an all-or-nothing situation, the owner can fine-tune access to his data. Because the data is encrypted, it cannot be tampered with. If the information is stolen, it matters less, because only a minimum of anonymous data is included.