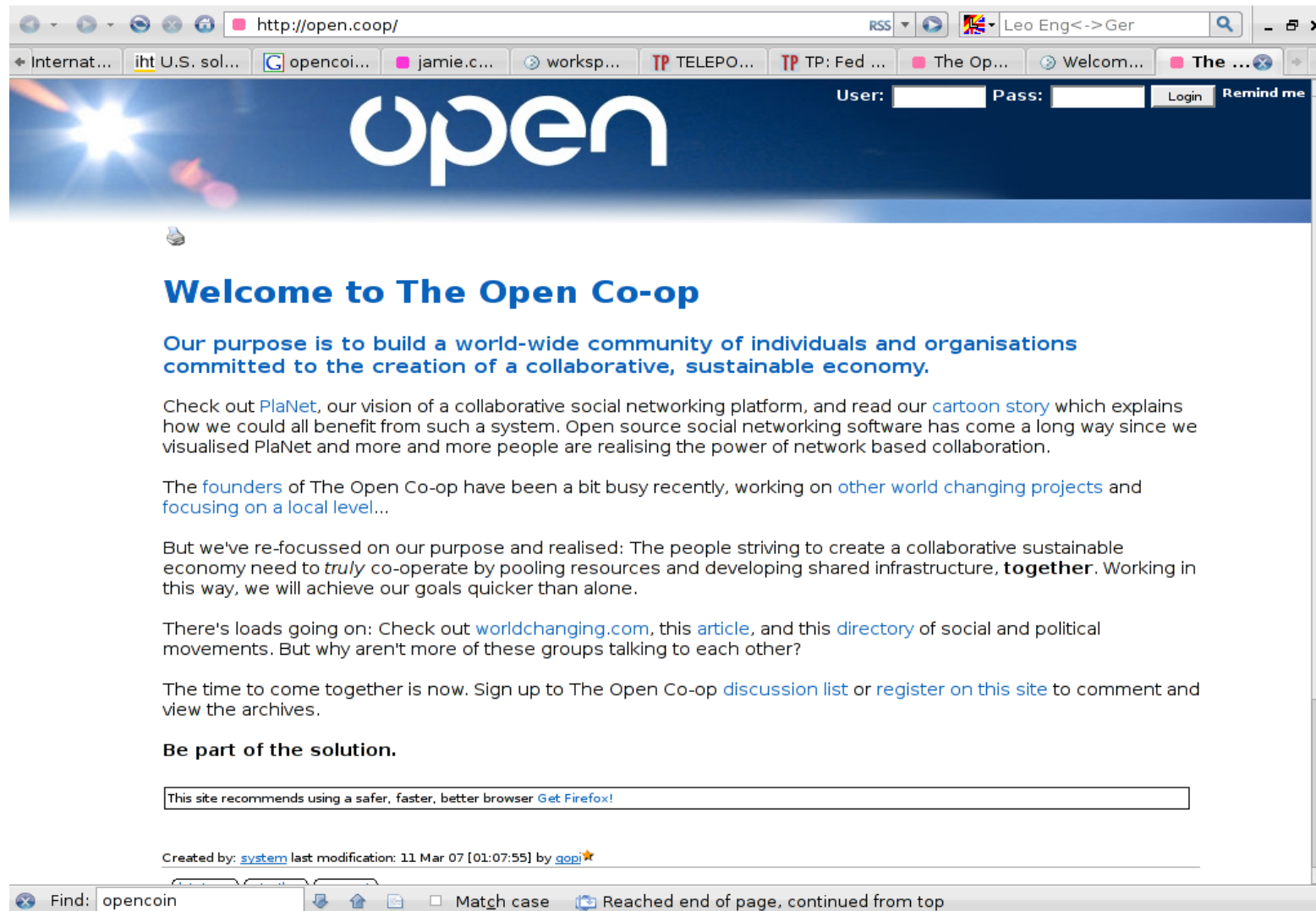


**opencoin**

opencoin.org

Joerg Baach  
jhb@open.coop



opencoin @ open knowledge

opencoin.org

## **open.coop**

„Our purpose is to build a world-wide community of individuals and organisations committed to the creation of a collaborative, sustainable economy.“

- open.coop is a llp
- open.coop runs the opencoin project

# **opencoin**

free and open source system

for

electronic tokens, coins  
vouchers and payments

## **opencoin** allows

- peer 2 peer transfer of tokens
- non traceable transactions
- micropayments

in the beginning was....

**copycan**

# • author gets paid

Logged in as ['bruder'](#) / [logout](#)

## User Bruder



Hi, I am Bruder.

I am a musician, being involved in different projects, e.g [p-pack.de](#). Please go there for more information on me.

Balance: 100.0

**Projects:**

[runnin](#)  
state: finished

• **everybody can access content**

Preview (321827 Bytes, audio/mpeg)

Data (5632128 Bytes, audio/mpeg)



## **idea of copycan**

- authors should be paid for their initial publication
- free license against hard cash
- copycan acts as escrow

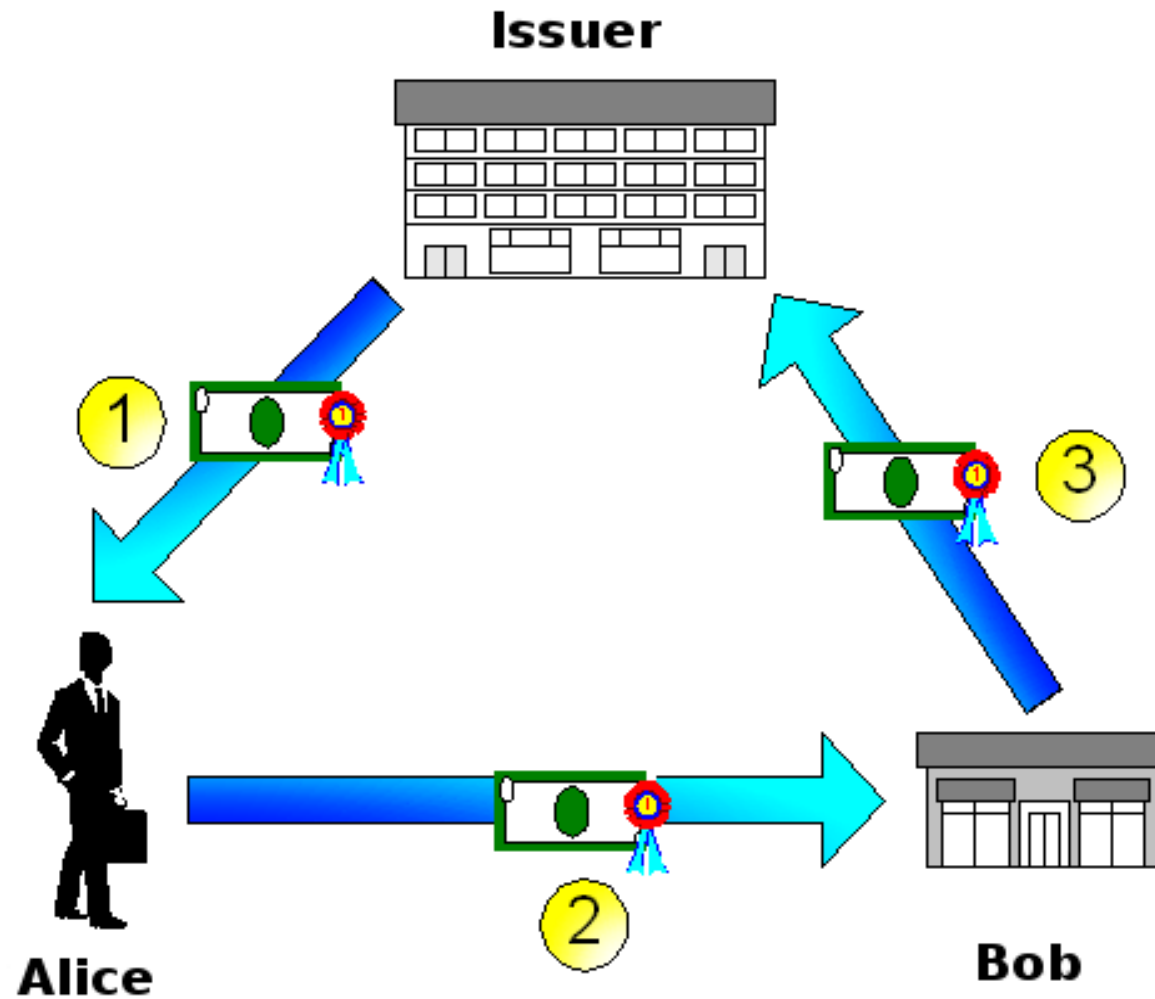
## **problem for copycan:**

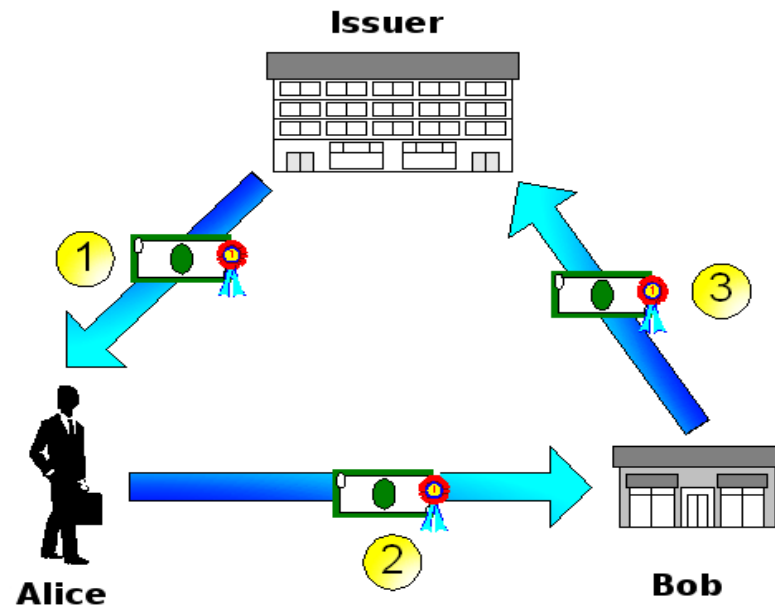
- cost of payment
- getting money to copycan  
(lots of small transactions)
- repaying money if project fails  
(lots more)

## **Idea for opencoin:**

- diy money transfer
- building on david chaums invention
- pilot run by Deutsche Bank in 90s

# ecash





- 1 Alice goes to issuer, gets 10 tokens for 10 GBP
- 2 Alice sends tokens to Bob
- 3 Bob goes to issuer and gets 10 GBP for 10 tokens

- **works like cash**

## **opencoin project**

- 50% funded by the LDA,  
with the help of Angle plc
- 50% by open.coop and  
developers (in-kind contributions)
- partnering with academics
- started Dec 2007, finishes Mar 2008

# Developers

- Andy Nicholson – **wallet software**
- Frank Linnenschmidt – **design**
- Joerg Baach – **architecture** and coordination
- Josef Davies-Coates – **money** consulting
- Mathew Ryden – **issuer software** and **protocol**
- Nils Toedtmann – **protocol** and **cryptography**
- Tom Salfield – code review + **money**

# **Crypto academics** from Royal Holloway

- Dr. Alex Dent
- Prof. Kenny Paterson
- Prof. Peter Wild and

helping with the **protocols** and **crypto**

## **Legal academics** from Queen Mary

- Prof. Chris Reed – **internet law**
- Prof. George Walker – **banking and financial law**

# Development results

- Protocol version 0.1
- describes working of the system
- communication between issuers and wallets

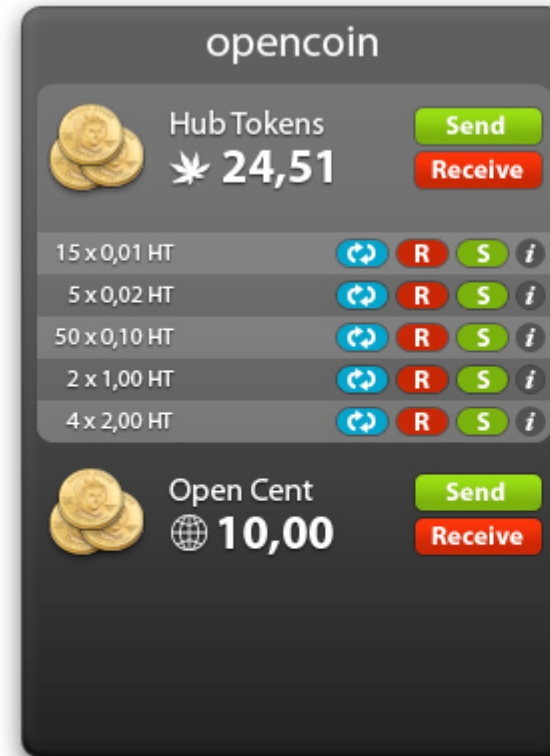
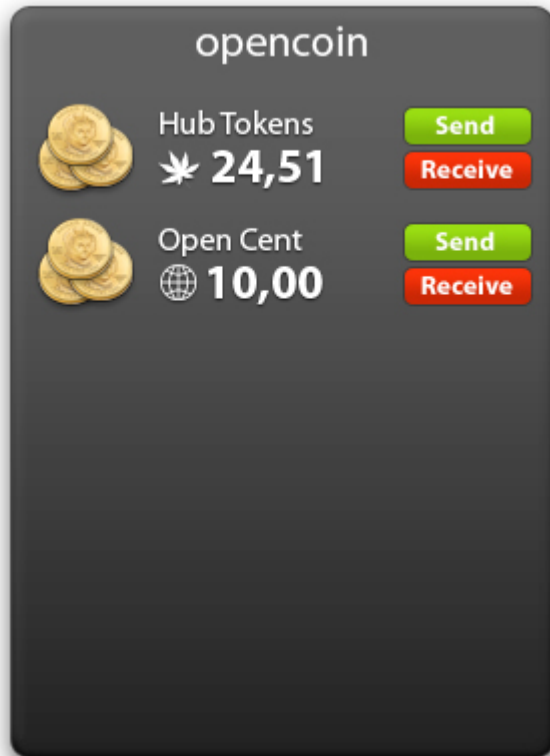
## **more dev results**

- pyopencoin – first implementation
- crypto stuff - working
- protocol implementation 95%
- issuer and wallet libraries 95%

## **even more dev results**

- issuer software
- working on finishing server
  
- wallet software
- designs
- pc software experiments
- mobile phone proof of concept

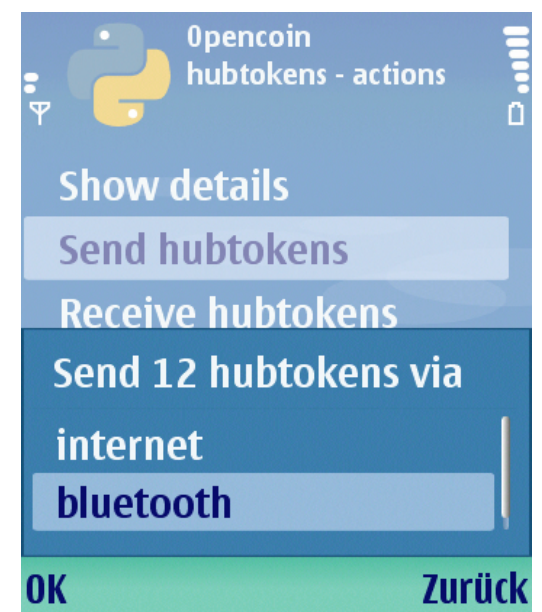
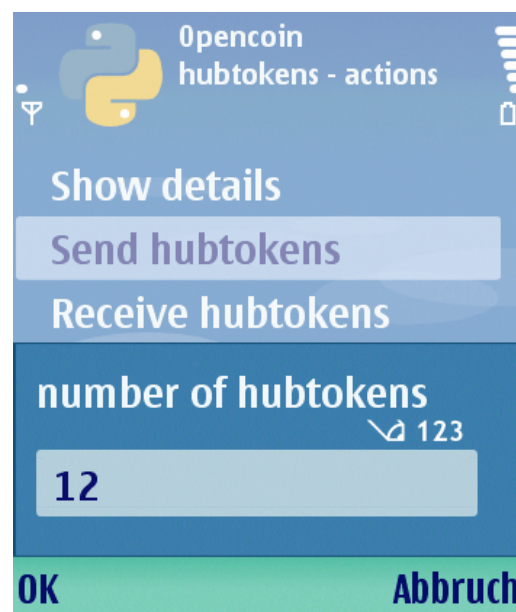
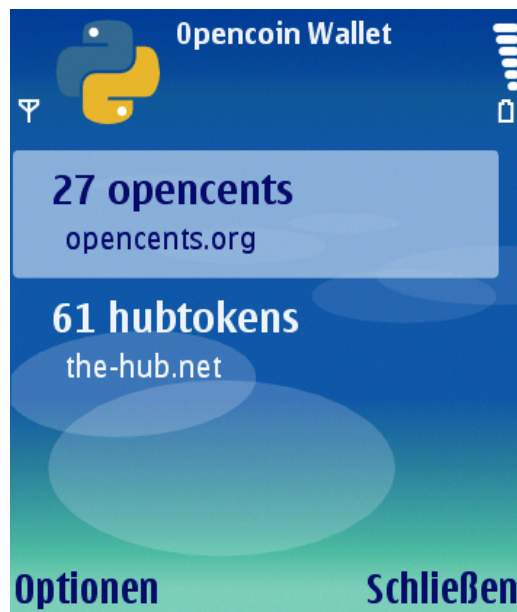
# wallet view and currency details



# wallet send tokens dialog



# mobile phone proof of concept



**opencoin @ open knowledge**

**opencoin.org**

# **crypto academics**

„we did not fall off our chairs laughing“

- Two reports on our protocol and extension ideas

## **legal academics**

- How can we use the opencoin software in the UK in a legal way, avoiding „fines and jail“
- voucher systems are not problematic e.g. electronic book vouchers

# redeeming for money

- e-money regulation
- small issuer exemption
  - no more than 50 GBP token size
  - no more than 5 Million of liabilities
- or not more than 100 participants
- money laundry regulation
  - applies mostly to businesses

We have a detailed legal report,  
to published soon

# **opencoin vs. opencent**

- opencoin is the software (gpl) and the findings
- opencent would be a system using the software
- everybody can use the software
- wallet handles multiple 'currencies'

# **we welcome help**

- polishing of protocols
- working on the software
- building a slick user friendly wallet software

## **future application**

- voucher system for the-hub.net
- electronic vouchers to buy
  - work space
  - meeting space
  - products from the hub store

## ideas to evolve to **e-money**

- redeem vouchers for money
- apply for exemption to the FSA
- ethical cheap payments

**Thanks a lot!**

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jhb@open.coop