

Doing Money Differently + Cclite2 SMS Demo

Doing Money Differently

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Bit of Bio here: <https://www.horizon.ac.uk/working-with-the-mema-3-0-project/>

This talk is based on a talk already given at LARC in 2019 and a tech one given at London Perl Workshop:

<https://hughbarnard.org/doing-money-differently/>

All the new slides will go on my website, so don't worry about making notes for the references, at least. Hopefully 20 minutes for talk 10 minutes for questions.

HEALTH WARNING: This is a short talk so not deep or complete, either for money or Cclite2

Outline of Talk

Talk is divided into two parts:

- Skip through types of conventional money, manifestations and problems
- Some of the alternatives and complementary type of ‘money’ + directions/innovations

What we’re up to and (possible) demo of SMS on Cclite2:

<https://forestgatenorth.org/mobile-help> for doc (will complain about the cert but I look honest don’t I?)

Orthodox Money

Monetary orthodoxy has four functions of money:

- **Measure of value** : The value (! see digression) of something is measured in a specific currency as units
- **Medium of exchange**: Widely accepted token which can be exchanged for goods and services
- **Deferred Payment**: It is the function of being a widely accepted way to value a debt
- **Store of value** : A store of value is the function of an asset that can be saved retrieved and exchanged at a later time and be predictably useful when retrieved.
- Other visions: See Graeber (especially on birth of credit vs barter), Gessell (demurrage), CH Douglas (mutual social credit) too.

Types of Money

- **Commodity backed:** tokens can be exchanged with the issuer for gold, compost (yes! Bangkok project), energy etc. I haven't done 'pure commodity' gold coins, large round stones etc. Clearly some arguments about utility of the base commodity, can't eat gold.
- **Pure fiat:** This is money because 'we (! who we?) say it is' (enforced by state violence, if you want to be extreme)
- **Fiduciary Money:** The value of a fiduciary currency depends on the confidence that it will be generally accepted as a medium of exchange. Unlike fiat currency, it is not declared legal tender by the government, which means people are not required by law to accept it as a means of payment, cheques, if you remember those?
- **Commercial Bank Money:** Money issued as debt bearing by commercial banks. This is about 97% of issuance in the UK hence a huge democratic deficit. One could roll that up into the fiat category because it arrives out of 'nowhere'.
- **Tokens:** Limited in scope, remember book tokens, supermarket points etc.

Digression

- Philosophically there's a lot of difficulty about the nature of money, for example see: Social ontology of money (Stanford Encyclopedia): <https://plato.stanford.edu/entries/money-finance/>
- See also value theory: <https://plato.stanford.edu/entries/value-theory/> **I'm with Amartya Sen** value doesn't look like this {1}, it looks more like this {1,16,eggs,53,nice-colour)
- I'm also taking the view of a 'humane technologist' here. That we can design money-something(s) that give us better results for a wider population or revisit existing money-somethings.
- So my view is somewhat artifactual, 'we' (who we?) (or the state, for example) made it up and we can make it up again

We never step back and think about, it's like old wallpaper that we got used to. In the case of my home, the carpet.

Other Expressions of 'Money'

More precisely these are mechanisms of exchange in some cases:

- Local and regional currencies (Brixton Pound etc.), backed/unbacked convertible to national/or not
- Cryptocurrencies (ugh!)
- Specialised, (Loyalty points), Wellness, Torekes, a whole new talk in itself
- Timebanks (basically propping up charities and usually require a lot of conventional finance)
- Regional and business exchanges (SARDEX Sardinia, WIR Switzerland, Red Global de Trueque (RGT) Argentina)
- Mutual social credit, LETs and related, this is the area where I concentrate

Let's Analyse

Let's put some of these on the couch:

- **Locals and regionals** (Brixton, Totnes, both failed) are probably fiduciary since they can be changed back into national currency. Cryptos too?
- **Specialised tokens** usually have limited purchasing power, flights, hotels etc.
- **Timebanks** could be considered as locked down mutual social credit (hours, enforced equality) oriented towards 'volunteers' within 'charities' (Tempo, for example)
- Sardex/WIR **business to business** networks and currencies:
<https://www.ft.com/content/cf875d9a-5be6-11e5-a28b-50226830d644> Successful.
- **Mutual social credit** and LETS. 'Value' created at point of activity (orthogonal but hybrids possible) Biggest is CES:
<https://www.community-exchange.org/home/cen-statistics/>

Let's also note that all of these are *complementary not alternative*, they live alongside national currencies.

What does 'success' need?

Here are some partial 'successes':

- Sardex: <https://wiki.p2pfoundation.net/Sardex>
- WIR: https://en.wikipedia.org/wiki/WIR_Bank
- Ithaca Hours (1990s-2010 but now defunct)
https://en.wikipedia.org/wiki/Ithaca_Hours
- Worgl (much examined by academia):
https://en.wikipedia.org/wiki/W%C3%B6rgl#The_W%C3%B6rgl_Experiment

A few things that 'help' towards 'success'

- Business credit clearing seems to 'work'
- Valid for local taxes (Worgl, Bristol) sometimes works
- Economic depression and 'scarce' national money
- Convenience, as convenient as national? NFC, SMS, Web, Apps (ugh!)

Infrastructure, Innovation, and the Future

- Why do the ‘pounds’ (and other systems) fail so often?
- Limited offer for software (some renewal taking place, CES Rewrite (?), my own, Taler: <https://www.taler.net/en/ngi-taler.html>)
- Equivalent convenience to national currencies and ‘contactless’, low friction
- Alternative energy backed currencies
- Maslow mix within groups, usually plenty of crystal healers, no plumbers
- Government and Institution ambivalence: loss of control (timebanks)

Over to You

- There's space in the UK for thinking/acting in this space, even if it's less sexy than AI. Better get there before Central Bank Digital Currency (CBDC) Too
- Using the middle ground between neighbours and strangers: Boroughs/Areas?
- Physical space required: the 'head office'/community space, lesson of Stratford timebank
- Tech innovation: Making (double coincidence of wants?) matching better, reducing transactional friction, reliable/simple infrastructure
- Give it a spin: 07356 234041 and <https://forestgatenorth.org/mobile-help> (ignore complaints about the cert, the set up is a bit 'provisional').

Endpiece Money: Thank You!

“...you and Harlow were shipwrecked on a desert island, and you saved nothing from the wreck but a bag containing a thousand sovereigns, and he had a tin of biscuits and a bottle of water...Who would be the richer man you or Harlow?” (From Robert Tressell’s *The Ragged Trousered Philanthropists*)

How Cclite Started: 1998 -2007

- What is it all about: https://en.wikipedia.org/wiki/Local_currency
- 1998: The Encyclopedia of Social Inventions
- 2003: [Michael Linton](#) in London
- 2005: Vague Beginnings: Linton, [Lietaer](#), Fee, Walsh, Limehouse
- 2005: [WSFII](#) and the Lime
- 2007: First Versions of Cclite (the first one):
<https://sourceforge.net/projects/cclite/>

The Middle Bit: 2007 - 2014

- Community Currency Summer (Totnes, Brixton, Bristol)
- LETS groups and systems
- Currency controversies and Currency design
- Community Currency winter (failure of Totnes, Brixton and Bristol)
- Stagnation of LETs

Cclite2: Musings and Design Choices

- Second system effect. Cclite had (github, sourceforge) about 10k downloads, but only tens of installs/groups using. Bit rot and old tech beckons
- Stagnation of LETs
- Modern world is multimodal, screens, phones, sms (and currently NFC see later)
- Cclite was/is multilingual, this was to be maintained/improved
- An engine as well as an application with visible interfaces (API accessible)
- Some Cclite code and ideas ported forwards, especially DB work
- Mobile HTML templates

Mojolicious Arrives

- First release in 2008, good levels of maturity in 2010 approx
- I'd worked with Catalyst (Lovefilm, BBC?) and wanted something 'a little more' than Dancer, less than Catalyst
- Cpan still has 'libraries for everything'

Template organisation

- All the main folders are html, mobile and text, I've chosen to open the text because there are 'only' three languages currently, in total about 18 possible in the others
- How to translate? Cclite (original) big ugly (my fault) parser based on HTML::TokeParser and (boo!) Azure translate
- Now Python html.parser and DeepL translate, 160 approx lines. Experimenting with Libretranslate to be completely open but not quite 'there'.

Postgres + DBIX for data

- Schema roughly from old application Mariadb database: some ideas from 1998
- SQLFairy + manual edits → Postgres schema
- DBIx::Class::Schema::Loader to make the Perl modules
- Wrangling! Not a DB person, not a Postgresql person

Now: Example Mobile Template

- Wireframe mobile template, no 'apps': detect via browser string

Cclite Mobile Web

Login Pay Balance

Date

To

Currency

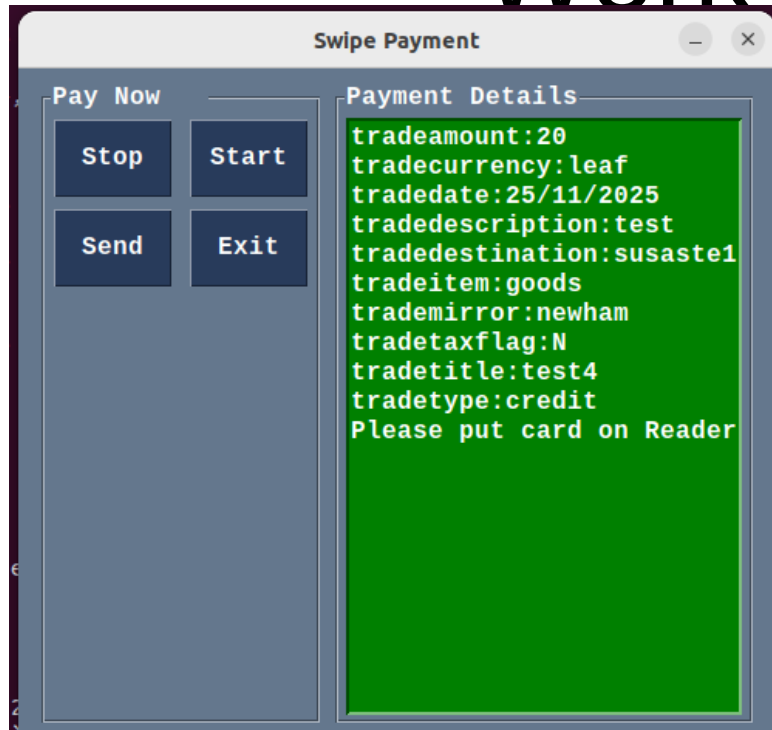
Item Type

Item Title

Item Description

Cclite 2003-2025 © Hugh Barnard

Work in Progress



- NFC via ACR1252
- Waiting for general mobile browser NFC

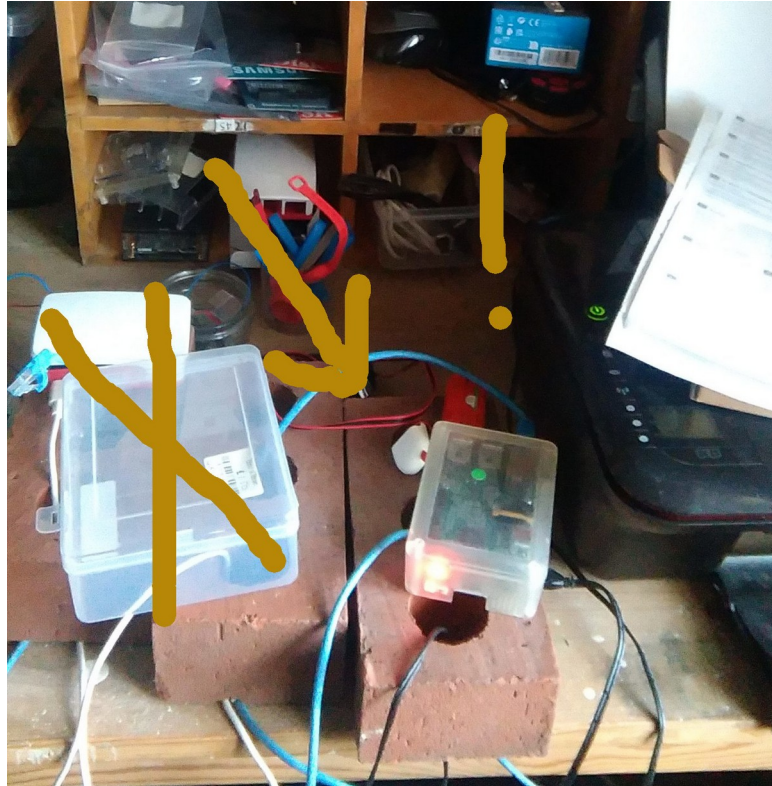
Crude HTTP handshakes with Mojolicious router at present: # FIXME: these need to be under the /api with jwt tokens? Get working first!

```
$r->post('/present/payme')-
>to('cclite#pay_me', {'object'
=> 'payme'});
```

- Python smartcard library etc.

Here's the Test Server

One on the right
Raspberry Pi 4B



The 'learnings' (ugh, aka lessons)/future

- Currency/currency design, controversy, feeds into technical design, demmorage, sms sponsorship etc., relationship to nationals/'backed by' concepts
- Multilingual from outset, so second language folks can more easily mess around with it
- Convenience (mobile/sms/web/nfc + short sequences), reaching down to use
- Want an 'easy' core install, currently experimental: `sudo apt install`
- Some pivoting from cpan towards apt perl-xxx but...
- #Permacomputing/reduced ambition/pure 'open'
- Documentation badly behind, cclite had/has a manual
- Why do this at all? It's quixotic isn't it?! (non funded/grant supported **demonstrators**, for example)

That's all folks.

- Thanks!
- Here's the (as usual almost) current code:
<https://sourceforge.net/p/cclite2/code/ci/master/tree/>
- hugh.barnard@protonmail.com and <https://hughbarnard.org>
- <https://big-wave-heuristics.com> too...