

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/271485318>

# ebarts – democratic money

CONFERENCE PAPER · APRIL 2014

---

READS

29

3 AUTHORS, INCLUDING:



[Cornelia Boldyreff](#)

University of Greenwich

**112** PUBLICATIONS **827** CITATIONS

SEE PROFILE

---

# ebarts – democratic money

**Yasmine Arafa**

ebartex Ltd.  
1 Plough Place  
London, EC4A 1DE, UK  
yasmine.arafa@ebarts.com

**Miriam Joy Morris**

ebartex Ltd.  
1 Plough Place  
London, EC4A 1DE, UK  
miriamjoy Morris@ebarts.com

**Cornelia Boldyreff**

ebartex Ltd.  
1 Plough Place  
London, EC4A 1DE, UK  
cornelia.boldyreff@ebarts.com

**Abstract**

Conventional money depends upon scarcity to maintain its value and for this reason there will never be enough CM to do all the things that we need to do, for example provide education, care and opportunities. To do this, a new kind of money is needed. ebarts is a multi-platform, global digital currency. ebarts is based on barter, and is created by the users as they buy and sell from one another. It is a system of transferrable IOUs. Because ebarts is created by the users, there will always be enough currency to facilitate exchange, potentially opening up a new social economy. ebarts is the basis of democratic money.

**Author Keywords**

Digital Currency; Complementary Currency; Virtual Currency; ebarter; ebarts.

License: The author(s) retain copyright, but ACM receives an exclusive publication license.

**ACM Classification Keywords**

H.3.5. Online Information Services (Web-based services ); K.4.4. Electronic Commerce (Digital cash).

**Introduction**

Conventional money (CM) fulfils three functions: a store of value, a unit of account, and a medium of exchange [1]. Because it is a store of value, money is prone to hoarding. 2012 estimates show companies are hoarding \$3.2tn [2], and 1% of the world population holds 50% of its money [3]. Moreover, money relies on scarcity to maintain its value, and this explains why there is not enough in circulation to provide an effective medium for exchange within everyone's reach.

More problematically, CM is created by banks issuing credit, so all money has to be paid back with interest. For this reason money needs to make a quick return, and cannot facilitate activities such as care or education for all. Between 1998 and 2008 the money supply in the UK doubled but only 20% of it went into the 'real' economy, 80% went on assets such as property and financial speculation both of which command a higher and quicker return [1].

Consequently there is never enough money to provide for basic needs. The problem is a lack of money, not a lack of resources. Within every community there are many wasted and unemployed resources: talent, strength, ideas, skills, ambition, time, possessions, energy, wasteland, empty buildings, landfill and so on. There are many people and communities excluded from

productive economic activity simply because CM is not able to facilitate the exchange of goods and services.

### **Digital Money**

Conventional Money is no longer backed by gold. It is fiat money – ‘a promise to pay the bearer’. It has no intrinsic value; it is just an IOU from a Central Bank, which is backed that nation’s tax-payers. Money is simply information, and most of it is digital. Only 3% of money is cash, the rest is just digital data.

Consequently, technology enables us to create new digital currencies. Many of these currencies are bought with CM (Facebook Credits (FB) [4], iMoney [5]). Others are issued and redeemed by large organisations (airmiles, reward points).

Bitcoin has demonstrated the potential of a peer-to-peer currency, but like CM its value is based on scarcity. Bitcoin is based on the model of gold [6]. Immense fluctuations in value caused by speculative buying and selling of bitcoin have occurred, similar to the gold market.

A new type of democratic digital currency is required. It needs to be complementary to CM. It will be democratic because it is created by the users, and draws its value from the enormous untapped resources within our communities.

### **Barter and Exchange**

In times of economic crisis people turn to bartering. During the 1930s a barter currency was set up in Switzerland to enable businesses to keep trading. Today the WIR is used by over 60,000 businesses and is credited with having stabilised the Swiss economy

[7]. When Argentina defaulted in 2001, hundreds of barter clubs sprung up, where people could go to exchange goods and services [8]. At the height of the crisis over two million people were dependent upon them for their survival.

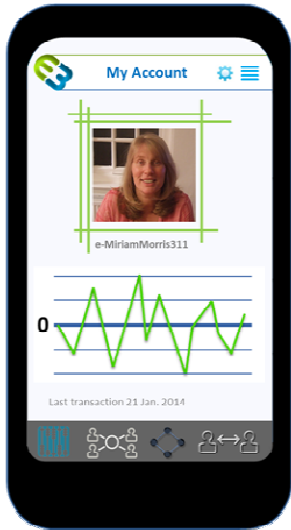
All over the world local exchange schemes, time-banks and local currencies have been set up to encourage local trade and the reuse and sharing of resources [9 10, 11]. These have been very successful at supporting the elderly, keeping local businesses open, creating a sense of community, and rewarding volunteering.

Barter currencies are not just for the desperate, nor the worthy. Business to Business Barter is now well established; in 2009 it was worth \$12bn in the US, and growing rapidly [12]. However, by their nature barter currencies are exclusive and inflexible, and therefore limited. Unlike CM they do not have a standardised measure of value. They are only tradable within closed groups. What is required is a common, global barter currency.

### **ebarts**

ebarts is a new global digital barter currency with the potential to be as secure, useful and ubiquitous as CM. ebarts aims to enable a thriving, global, barter economy by providing a common currency for use across the existing barter and exchange sector. It will open the barter sector to new people, groups and businesses.

ebarts is a multi-platform currency designed to supplement CM by enabling economic activities which CM cannot. ebarts can help to stabilise economies because it is counter-cyclical.



## How eBarts Work

A set of eBarts apps are being developed to demonstrate eBarts to potential user communities. It will be possible for eBarts users to trade via their mobile phones and the web. A web plug-in is also being developed to allow other trading websites to allow the use of eBarts. A user-centred design approach has meant that early on use cases and user-interface screen shots have already been developed.

Users will open an eBarts account. Each account is opened with the promise that 'I will give back what I take'. Individuals, businesses and community groups can open accounts. Accounts start on zero, and a trading limit is set. This is like an overdraft limit, but it also restricts the amount of credit in an account. This is in order to keep the eBarts circulating.

Traders set the price of goods and services exchanged. Transactions in eBarts are made by debiting the buyer's account and crediting the seller's account by the same amount. Every debt is balanced by a credit, making the sum total of all eBarts accounts zero.

Account-holders do not have to earn eBarts before they spend them, they can go into 'debt'. When they spend they are creating an IOU: a promise to repay their debt to the system. This is the way currency is created. A healthy eBarts account will have a high throughput and fluctuate regularly either side of zero. The sidebar screen shots show how this is represented. eBarts is simply a 'medium of exchange'. There is no point hoarding or saving eBarts.

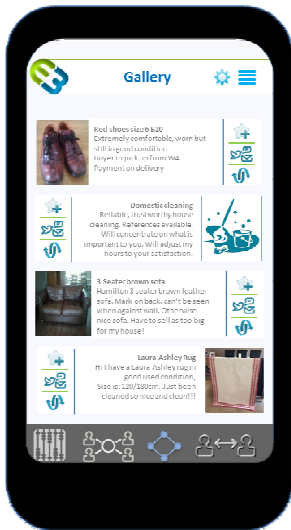
Account-holders will also have a 'credit rating' generated by their trading history, expressed as a

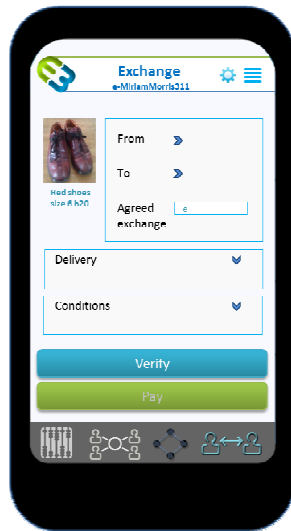
percentage. The eBarts system employs machine learning to assess the frequency, value, customer feedback and interconnectivity (how many trading partners) of each account-holder to update their credit rating. This in turn will be used to alter the account-holder's trading limit – increasing it in accordance with their previous use of eBarts.

eBarts is based on trust, and the system is transparent and self-regulating. The user's graphic 'heart-beat' and credit rating will be visible to all other account-holders. Furthermore, all transactions must be confirmed by both buyer and seller, or the donor and recipient. There is no obligation to trade with someone; transactions can be turned down if there is doubt.

Every account-holder will have a profile on eBarts.com where they can advertise what they have to offer and what they want. Account holders can also trade on participating websites through an eBarts plug-in. eBarts will also be tradable in shops, markets and face to face between traders via mobiles and hand-held devices. Many transactions will be dual currency, as eBarts is used by local retailers and businesses as part-payment for goods and services. Businesses and individuals can donate to Community Groups, who in turn can use eBarts to pay 'volunteers'.

eBarts has no value outside the system. It is not underwritten or backed by the platform provider, its value lies entirely in the mutual trust between traders. Because of no one is compelled to trade, along with the transparency of trading in the system, and the fact that every credit is linked to a debit, the opportunities and incentives for fraud are limited.





If a trader spends with no intention of providing goods and services in the future, they are limited by the trading limit on their account. Those with whom they trade will still receive credit for the goods and services provided. Furthermore, their dishonest trading will have created currency to circulate within the system. Unusual trading behaviour will be identified, and accounts can be frozen if necessary.

### Conclusion

Collaborative consumption and social networking are growing. ebarts will build on this success, and create new trusted networks of exchange. ebarts has been designed to:

- enable people to trade without CM,
  - reduce waste and energy consumption by encouraging local trade, and the sharing and re-use of resources,
  - and, bring social networks to life, in real communities, unleashing the potential of people's natural entrepreneurship and individual talents.
- ebarts provides a new means of exchange and has the potential to enable a new social economy, which brings social networks to life in local communities. ebarts provides a basis for democratic money.

### Acknowledgements

We thank all at the Bethnal Green Ventures Accelerator programme for providing ebartex Ltd with funding and mentoring while our first demonstrator of ebarts is built. Miriam Joy Morris had the original idea of developing ebarts™ which is a trademark of ebartex Ltd.

### References

- [1] Greenham, Tony and Ryan-Collins, Josh. Where Does Money Come From? NEF (2011)
- [2] Sakoui, Anousha. Pressure mounts for corporates' cash piles to be put to work. Financial Times, (21/01/2014) <http://www.ft.com/cms/s/2/1e1b9952-794f-11e3-91ac-00144feabdc0.html#axzz2rhx>
- [3] Fuentes-Nieva, Ricardo and Galasso, Nick. Oxfam International. (2014). <http://www.oxfam.org/en/policyworking-for-the-few-economic-inequality>
- [4] Facebook Credits. [http://www.theregister.co.uk/2009/06/03/facebook\\_payments/](http://www.theregister.co.uk/2009/06/03/facebook_payments/)

[5] iMoney. <http://www.coindesk.com/apple-to-create-virtual-currency-imoney/>

[6] Bitcoin. <http://bitcoincharts.com/>

[7] Allen, Matthew. Cash substitute greases business wheels. (2009) [http://www.swissinfo.ch/eng/business/Cash\\_substitute\\_greases\\_business\\_wheels.html?cid=7613810](http://www.swissinfo.ch/eng/business/Cash_substitute_greases_business_wheels.html?cid=7613810)

[8] Pearson, Ruth. Argentina's Barter Network: New Currency for New Times. *Bulletin of Latin American Research*, 22, 2 (2003), 214-230.

[9] LETS Schemes. <http://www.letslinkuk.net/>

[10] Timebanking. <http://www.timebanking.org/>

[11] Bristol Pound. <http://bristolpound.org/>

[12] Barker, Simon. Bartering for Business. SMEWeb (06/12/2013) [http://www.smeweb.com/index.php?option=com\\_content&view=article&id=4580:bartering-for-business&catid=55:features&Itemid=90](http://www.smeweb.com/index.php?option=com_content&view=article&id=4580:bartering-for-business&catid=55:features&Itemid=90)