# Fun and games with Bitcoin and SmileyCoin crypto251.0 Cryptocurrency and the Smileycoin

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## Puzzles, poetry, bounties etc etc

The Bitcoin blockchain has been used for many things other than transferring funds.

Some examples of puzzles in the blockchain:

https://en.bitcoin.it/wiki/Script#Transaction\_puzzle

Poetry and other text has also been inserted into the chain

The blockchain also contains bounties: They are automatically paid out to anyone who can solve a specified task. Similar to generic puzzles, a bounty can also serve a purpose. See below for bounties to find sha collisions.

# Sticking data into the blockchain: the data field

The OP\_RETURN operator can be used to insert data into a transaction. This is done using the data field of the createrawtransaction command.

#### Blockchain elections

A cryptocurrency can be used for elections

A voter receives a special colored coin as a ballot

The voter sends the coin to a preferred address corresponding to voting for that address

Special attention needs to be given to anonymity

### Bounties: Reporting hash collisions

Taken from https://en.bitcoin.it/wiki/Script#Incentivized\_findi

#### On-chain services

The OP-return field can be used to define new services

The field can be freely used so a language can be defined to describe a new service

SmileyCoin includes

\* On-chain registries of organisations, for donations/tips/payments \* On-chain registration of coupons etc \* UBI recipients

Once registered on-line, wallets can be modified to show the organisations Bots can be set up to automatically donate or pay UBI

## Protocol layers, USDT etc

The Onmi Layer is a layer on top of bitcoin, to allow extended functionality One important application was to run the USDT stablecoin on top of the bitcoin blockchain

Omni Lite is a corresponding addition to Litecoin

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