**Outline**

# Infnote: A Decentralized Information Sharing Platform Based on Blockchain

## Abstract

## 1. Introduction 0.8 Page

The reason why we choose this topic.
What infnote can do. (Discussion forum, blog, information sharing without Internet)
Why use blockchain (non-erasable)
Why use P2P network (no single failure)

## 2.Internet censorship  1.5 Page

1. Overview  (current situations around the world)
2. Censorship Methods (technical and non-technical)
3. Categories of Internet censorship (technical point of view)
    1. Little or None Internet Censorship
    2. Selective censorship  (block small portion of contents)
    3. Substantial censorship  (block large portion of contents, using black list)
    4. Pervasive censorship (using white list, for example Iran, impossible to use VPN)
    5. No internet (For example, North Korea)

## 3.Circumvention Technologies  2.5 Pages

Analysis each method in 5 categories of censorship.
Define the centralization/decentralization. Analyze each of the methods.

1. Accessing Information
    1. Cached pages
    2. Changing IP address and domain names
    3. Changing Alternative DNS server
    4. Web Proxy
    5. VPN
    6. P2P (two example, blockchain and BT)
    7. Sneakernets
2. Distributing Information
    1. Mirror and archive sites
    2. Web-to-email services
    3. P2P
    4. Sneakernets
3. Similar work (the work that closely related to ours)

    1. IPFS
    2. ZeroNet

## 4. Blockchain  2 Pages

1. Overview
2. Consensus Mechanisms (discuss which infnote should use)
    1. Proof of work
    2. Proof of stake
    3. Delegated proof of stake
    4. Proof of Authority
    5. Delegated Byzantine Fault Tolerance
3. Blockchain systems (analysis of building a discussion forum on top of those platforms below)
    1. Bitcoin
    2. Ethereum
    3. EOS
    4. Hyperledger
    5. Tendermint
    6. Origin Protocol
4. Incentive of blockchain system (currency)

## Design and implementation 2.5 Pages

1. Cryptography (Digital Signature Scheme, Hashing function)
2. Multi chains structure (define owners, ID chain)
3. Proof of authority (Reputation in reality/Anonymous world)
4. Protocol of P2P network (random port will be used)
5. Encrypted transmission (avoid censorship)
6. Full node and light node
7. Connecting to first peer
    1. Hard-coded nodes
    2. Addresses database
    3. From other nodes
    4. DNS
    5. User Specified address (QR Code)
8. Anonymity
    1. Tor
    2. I2P

## Evaluation and 0.7 page (plus conclusion)

## Conclusion

Public blockchain in which anybody is allowed to participate