Design for cryptokitty for indiatoday websites.

Cryptokitty - growth and replication is based on lot of parameters such as -

1)Emotion persona ( based on 4 quadrants of emotions)

2)IAB Segments Engagement Time Threshold

3)Topic Engagement Time Threshold

4)Geography parameters

5)Device parameters

6)Income level parameters

7)Comments

8)Impression / Click Activity of users.

9)Domain of the website

10)User data in SSO.

Frequency and time decay Algorithms for above parameters also govern growth and replication of cryptokitty.

Application of this algorithm is to generate feedback loop to get engagement time of a users above a certain threshold with high probability score.

**Part 2**

I have also added lot of modifications for bit torrent protocol (Logging framework, ML model based optimisation (for peer fetch, tracker selection) based on lot of parameters such as

and integration of p2p layers in some standard systems like Google Drive as well as general p2p layer design.

1)<https://github.com/suhasagg/BlockchainPrototype>

2)<https://github.com/suhasagg/P2PGoogleDrive>

3)<https://github.com/suhasagg/P2PDistributedHashTable>

4)<https://github.com/suhasagg/CustomP2PLayerDevelopment>

5)<https://github.com/suhasagg/bittorrent-protocol-modified-rain>

1)

Publish / subscribe hub support based on web sockets (peer, peer subgroup communication/data exchange)

2)a)

1)Torrent session (Download session, upload session)

2)System parameters for download session, upload session serialised to embedded key value store (bolt db) for checkpointing and resumption.

b)Different hubs used in p2p (torrent protocol) - publish/subscribe system

Torrent Session Hub.

File Metadata Hub.

Synchronisation of file metadata of a peers across peer set.

File category centric Hub

c)

**For peer priority Algorithm**

1) System Property Hub of Peer

2)System information of peers synchronised across other peers set

3)Third party databases to get device information

4)Properties which are determined based on IP Addresses using Maxmind Databases

ISP provider, Organisation

5)Download/Upload speed for a peer, (Parameter is available from peer benchmark data store)

Download/Upload graph of peers over time.

All these data points derived from p2p system can be used to train ML model (which can be used for certain category of predictions)

Inputs for ML model -

1)Hour of the day

2)Average Download Speed

3)Average Upload Speed

4)IP Address derived properties using Maxmind - ISP, City, zip code, Lat long,

5)Hardware Properties of the peer - OS, Device Type, Detailed Machine Information using wurfl.

6)Requests made to the trackers (udp, http, secure web socket)

7)File category

**Goal of ML model -**

a)Goal to derive most optimum peer (Least Download latencies) according to the time of day from a peer lat long

b)trackers to use according to time of the day from a peer lat long

Sample tracker urls -

udp://[tracker.coppersurfer.tk:6969/announce](http://tracker.coppersurfer.tk:6969/announce)

udp://[tracker.opentrackr.org:1337/announce](http://tracker.opentrackr.org:1337/announce)

wss://[tracker.openwebtorrent.com](http://tracker.openwebtorrent.com/)

c)Dashboard for visualising (data points) logs generated by p2p system

**Transactions supported by Aajtak coin on layer 2 side chain for high tps.**

1)

Use: "transfer [address] [amount]",

Short: "Transfer aajtakcoins to another account",

2)

Use: "transfer\_from [from\_address] [to\_address] [amount]",

Short: "Transfer aajtakcoins from a specified address to another",

3)

Use: "approve [address] [amount]",

Short: "Approve the transfer of aajtakcoins to another account",

4)

Use: "balance [address]",

Short: "Fetch the balance of a aajtakcoin account".

**Applications of aajtak - coin**

Awarded on performing following actions (Amount of aajtak coins can be awarded according to aajtak weight) -

1)In case of user comment - social network activity

2)In case of news digest subscription points

3)login points

4)In case of comments reaches a certain threshold

5)Newsletter subscription

6)Article views

7)Engagement Time above a threshold (Article page, videos)

8)Other parameters in User 360 profile

Two types of entities with aajtak coin currency -

1)website (Minted amount)

2)user (For user activity on the website in above domain, aajtak coins will be transferred from website to the user)

Aajtak coin currency is interoperable across different chains - ethereum, tron, binance.

**Aajtak Data currency also works the similar way -**

Awarded on performing following actions (Amount of persona coins can be awarded according to weight) -

1)In case of comment - social network activity

2)In case of news digest subscription points

3)login points

4)In case of comments reaches a certain threshold

5)Newsletter subscription

6)Article views

7)Engagement Time

8)User 360 profile

9)New,Loyal,Returning users - in each segment in different domains persona (according to taxonomy)

i)Geographic Persona

ii))Device Persona

iii)Emotion Persona

iv)Income Level Persona

Aajtak data smart contract will have initial minted supply of persona coins.

In case of threshold activity in above domain, persona weight in different domains/segments exceed a certain threshold, in that case certain amount of persona coins will be transferred from website to the user

All the transactions, events of chain can be viewed in grafana.