

Figure 1: data-nodes around a context domain space (mind's eye)

ACTIVE-MEMORY

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2012

Short Description

Procreating data, under fitness consideration, in form of **semantic** micro-structures within a conceptional domain. controlled by a human users request.

Active-Memory

The focus is on data-nodes which are organisation, in a context domain space. Goal is to facilitate procreation in a genetic fashion. Desired result of all efforts is to make better data from data by default.

It also has very interesting organisational properties, each structure is bound on a concept or more.

Side effect of the genetic fitness evaluation is that all root nodes and end nodes are known upfront reducing query distance as each end-node is same distance. It enables us to work kind of parallel.

New Terms

micro-structure

a micro-structure is a abstract entity describing **any concept**
the information is obtained via **WORD-NET**

key-stone

a key-stone is the root of a micro-structure

example:

a micro-structure with the key-stone existence

```
<existence>
- Cosmos
- Unit
- Universe
- Physical_entity
- Object
- Physical_object
```

- Nature
- Macrocosm
- Natural_order
- World
- Whole
- Natural_object
- Closed_universe
- Existence
- Creation
- Entity

0.1 combining to a complex entity

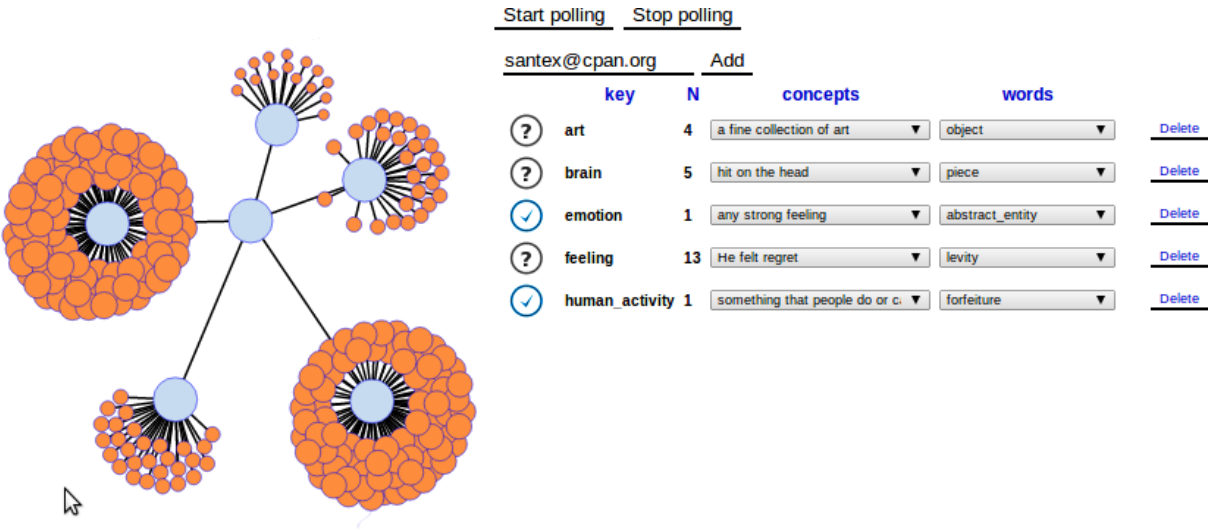


Figure 2: making micro-structures

concept art	4 sub-concepts	27 key-words
concept brain	5 sub-concepts	16 key-words
concept emotion	1 sub-concept	28 key-words
concept feeling	13 sub-concepts	76 key-words
concept human-activity	1 sub-concepts	83 key-words

The core node is my user-name

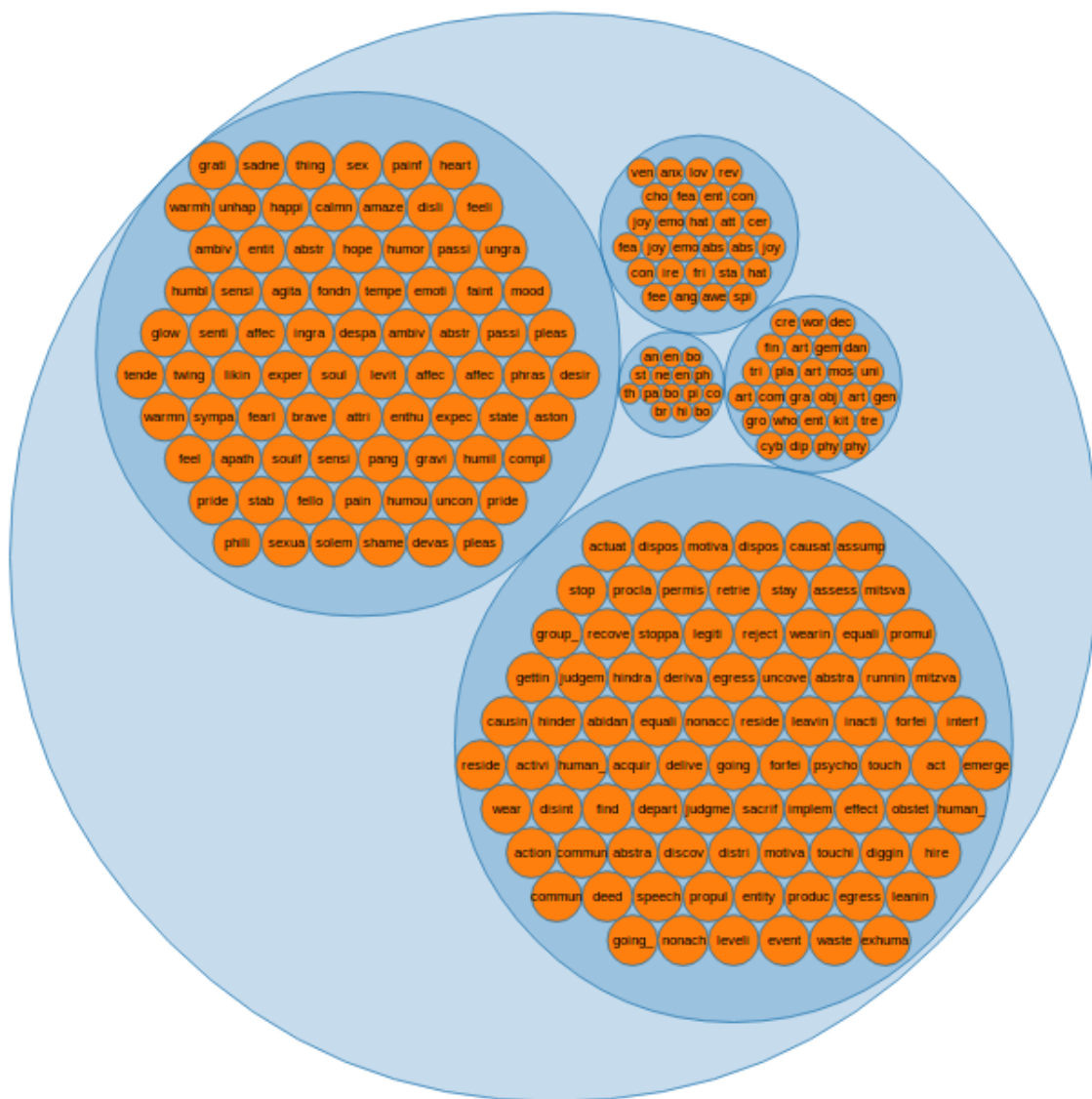


Figure 3: pack of concepts

0.2 micro-structure properties

- a micro-structure lives as a perl module (\$micro new existence)
- most human concepts available
- combine modular
- access via terminal
- micro-structure have access to the data-plugin's (wiki, google, torrent)
- the micro-structure is used as permanent query to scan for data.

0.3 active-memory plug-ins

- plug-ins are like feeds to just compatible to micro-structure's
- currently in use wiki plug-in (google planed)

1 Fitness

Variables \rightarrow

- C-total Word-net concept sum
- C-established used concept sum
- generation
- spawning links sum **in individual**

- tag-number sum **in individual**
- tag-ratios across total data population in micro-structure
- tag-density across total data population in micro-structure
- media items ratio (**links/amount media items**) (ogg, image, pdf)
- special items ratio (**links/amount special items**) (category, list)
- amount non linking/spawning individuals/

2 continuum of concepts within a micro-structure

- → **object**
- natural object—physical object—celestial body—heavenly body
- planet
- outer planet
- jovian planet
- superior planet
- major planet
- gas giant
- jupiter
- Iapetus
- moon
- satellite
- heavenly body—celestial body—physical object—natural object
- → **object**;

3 Project code structure

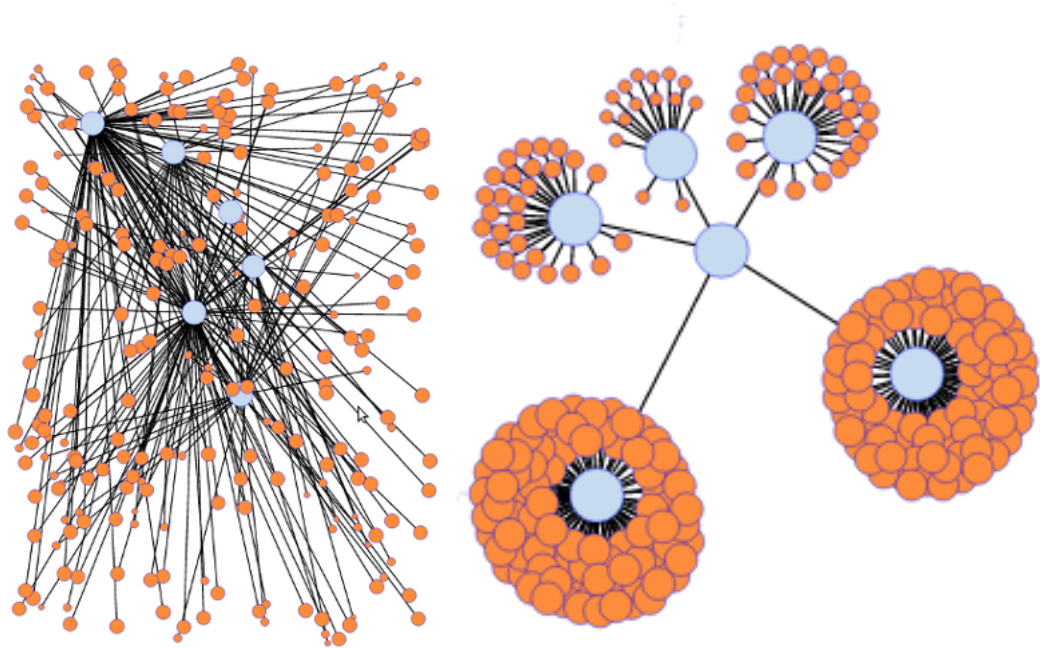
- → perl module
- → memcache
- → couchdb
- → wordnet

4 experimental Implementation

- → ui: <http://www.quantup.com>
- → data-base: <http://algoservice.com:5984/wikilist/>
- → git: <https://github.com/santex/active-memory>

5 Network

Data in disorganised data network The same network as micro-structure



Data in disorganised data network — The same network as micro-structure

6 A sample

```
hagen@sante12:~$ micro new hacker;  
hagen@sante12:~$ micro hacker  
physical_object  
hagen@sante12:~$ micro hacker  
person  
hagen@sante12:~$ micro hacker  
computer_user  
hagen@sante12:~$ micro hacker  
programmer  
hagen@sante12:~$ micro hacker  
someone  
hagen@sante12:~$ micro hacker  
organism  
hagen@sante12:~$ micro hacker  
engineer
```

```
now use > $ micro hacker 20  
animate_thing  
programmer  
object  
coder  
computer_programmer  
physical_object  
living_thing  
entity  
software_engineer  
physical_entity  
engineer  
cause  
individual  
applied_scientist  
being  
hacker  
somebody  
technologist  
causal_agent  
whole
```


7 A sample with data

```
$ micro new constellation;  
$ micro constellation 103;
```

```
andromeda  
antlia  
apus  
aquarius  
aquila  
ara  
argo  
aries  
auriga  
bootes  
caelum  
cancer  
canis_major  
canis_minor  
capricorn  
capricornus  
carina  
cassiopeia  
centaur  
centaurus  
cepheus  
cetus  
chamaeleon  
chameleon  
charioteer  
circinus  
columba  
coma_berenices  
constellation  
corona_borealis  
corvus  
crane  
crater  
crow  
crux  
crux_australis  
cygnus
```

delphinus
dorado
dove
draco
dragon
entity
eridanus
fornax
gemini
great_bear
great_dog
grus
hercules
hunter
hydra
hydrus
indus
leo
lepus
libra
little_bear
little_dog
lupus
lyra
mensa
microscopium
musca
natural_object
norma
object
octans
ophiuchus
orion
pavo
pegasus
perseus
phoenix
physical_entity
physical_object
pictor
pisces
puppis
pyxis
reticulum
sagitta
sagittarius

```

scorpio
scorpius
sculptor
serpens
snake
southern_cross
southern_triangle
taurus
telescopium
triangle
triangulum
triangulum_australe
tucana
unit
ursa_major
ursa_minor
vela
virgo
volans
vulpecula

```

get data this shell script only to balance load regular command
(micro-wiki virgo)

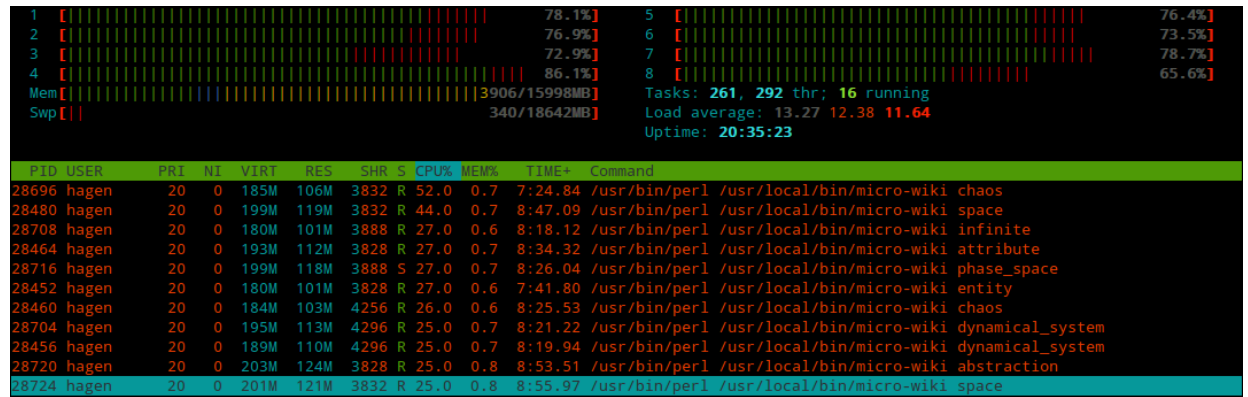
```

#!/bin/bash
IFS_BAK=$IFS;
IFS=$'\n';
array=( $(micro constallation 105) );
n=0;
for item in ${array[@]}
do
var=$(ps aux | grep -c perl);
if [ 80 -lt $var ];
then
echo $n;
sleep 10;
else
micro-wiki $item &
fi
let n+=1
done;
echo $n;

```

IFS=\$IFS_BAK;

downloading



sample out images (actually the image results are times 5)

