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#STRANGELOOP 2013

SEPTEMBER IXX, MMXIII

associative memory and thinking



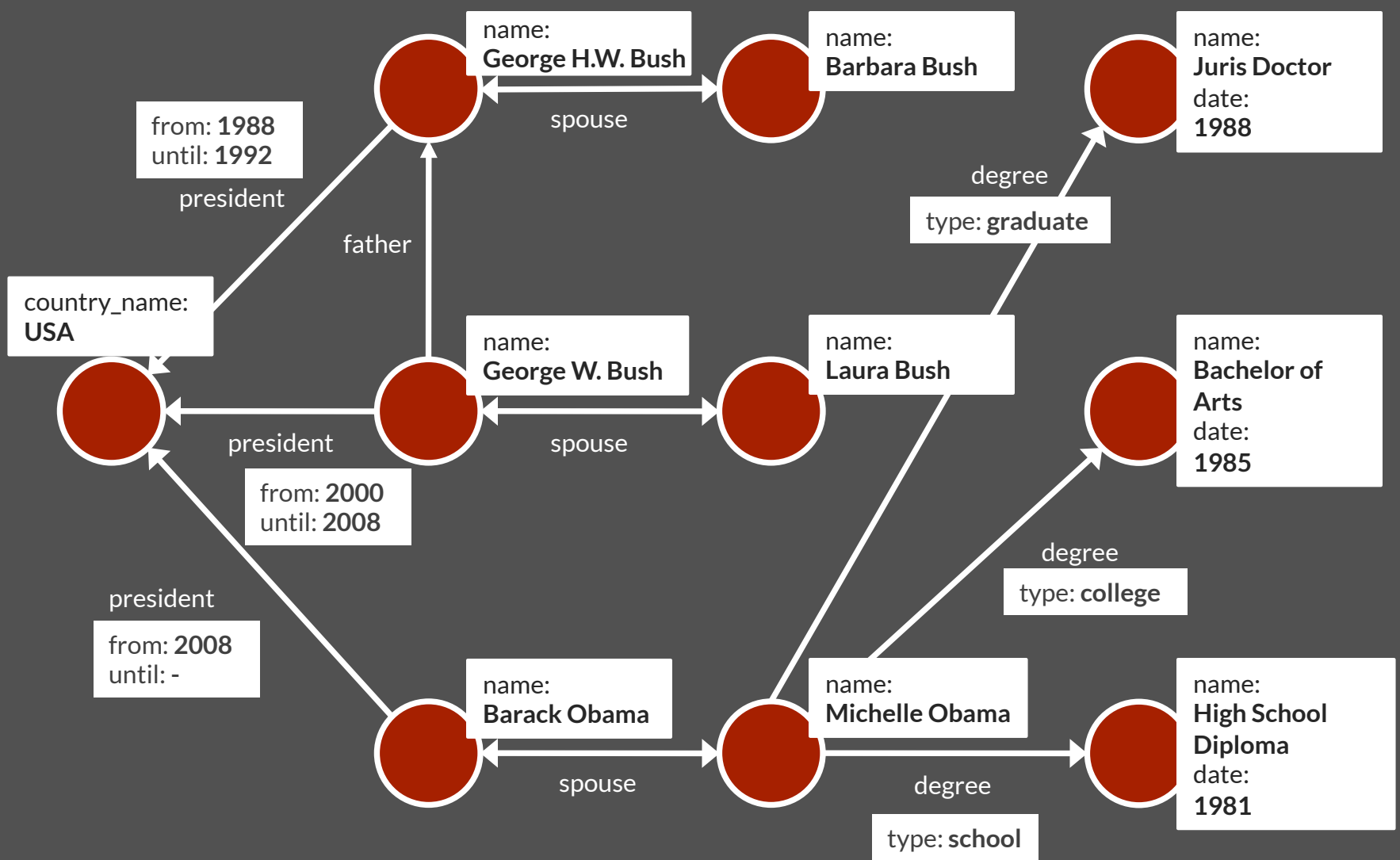
Enabling Humans

What is the name of and highest degree earned by the wife of the current president of the US?

```
SELECT People.name, DegreeEarned.name
FROM DegreeEarned
INNER JOIN People ON DegreeEarned.personid=People.personid
INNER JOIN Spouse ON People.personid=Spouse.wifeid
INNER JOIN President ON President.personid=Spouse.husbandid
INNER JOIN Country ON President.countryid=Country.countryid
WHERE Country.name='USA' AND President.until=NULL
ORDER BY DegreeEarned.type LIMIT 1
```

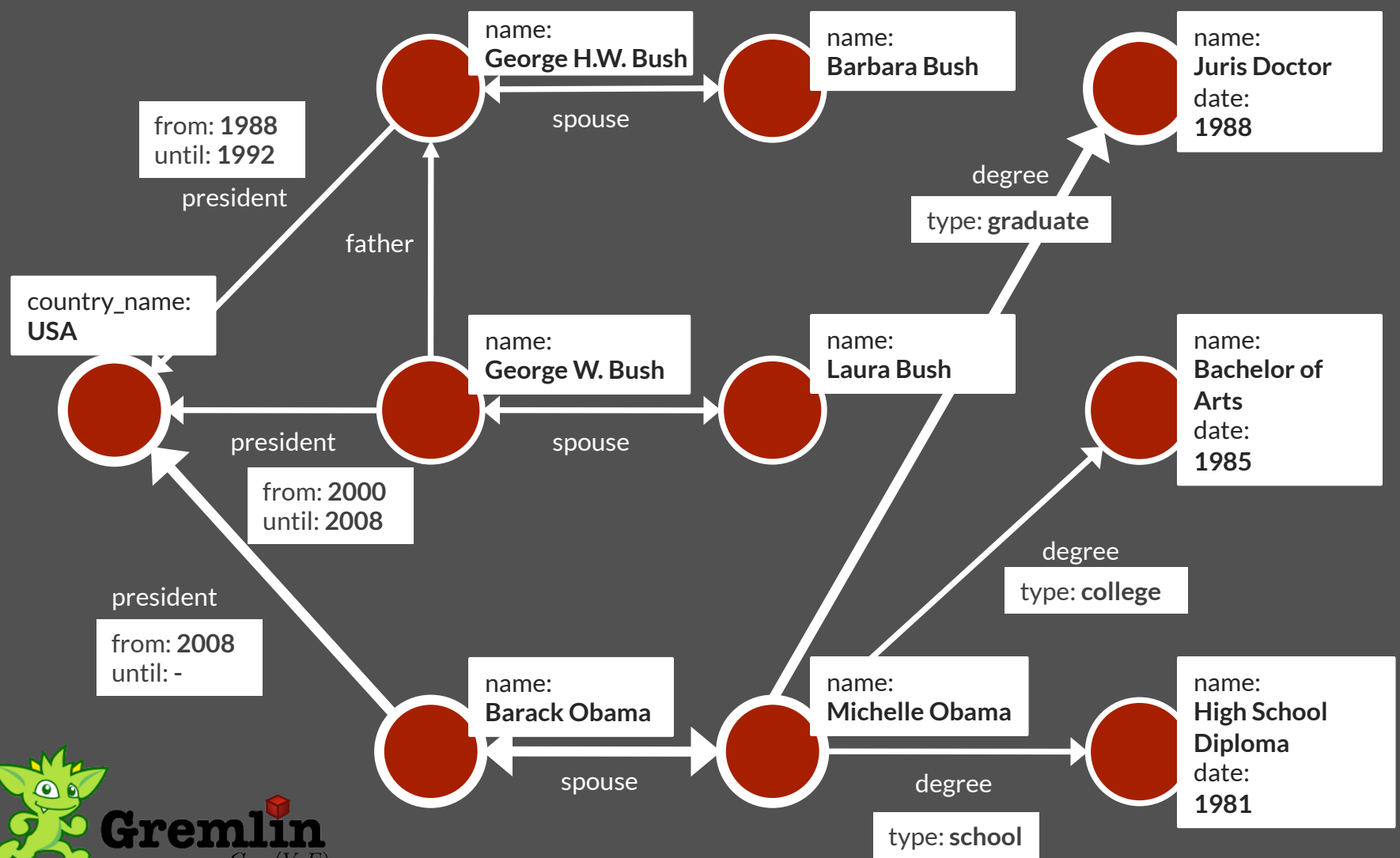
What is the average term length of those presidents of the US that took office in the 1980s or later?

```
SELECT Avg(President.term_length)
FROM President
INNER JOIN Country ON President.countryid=Country.countryid
WHERE Country.name='USA' AND President.from>1980
```





```
g.V('country_name',
'USA').inE('president').hasNot('until').outV
.out('spouse').as('x')
.out('degree')[0].as('y').select{it.name}
```



associative memory and thinking



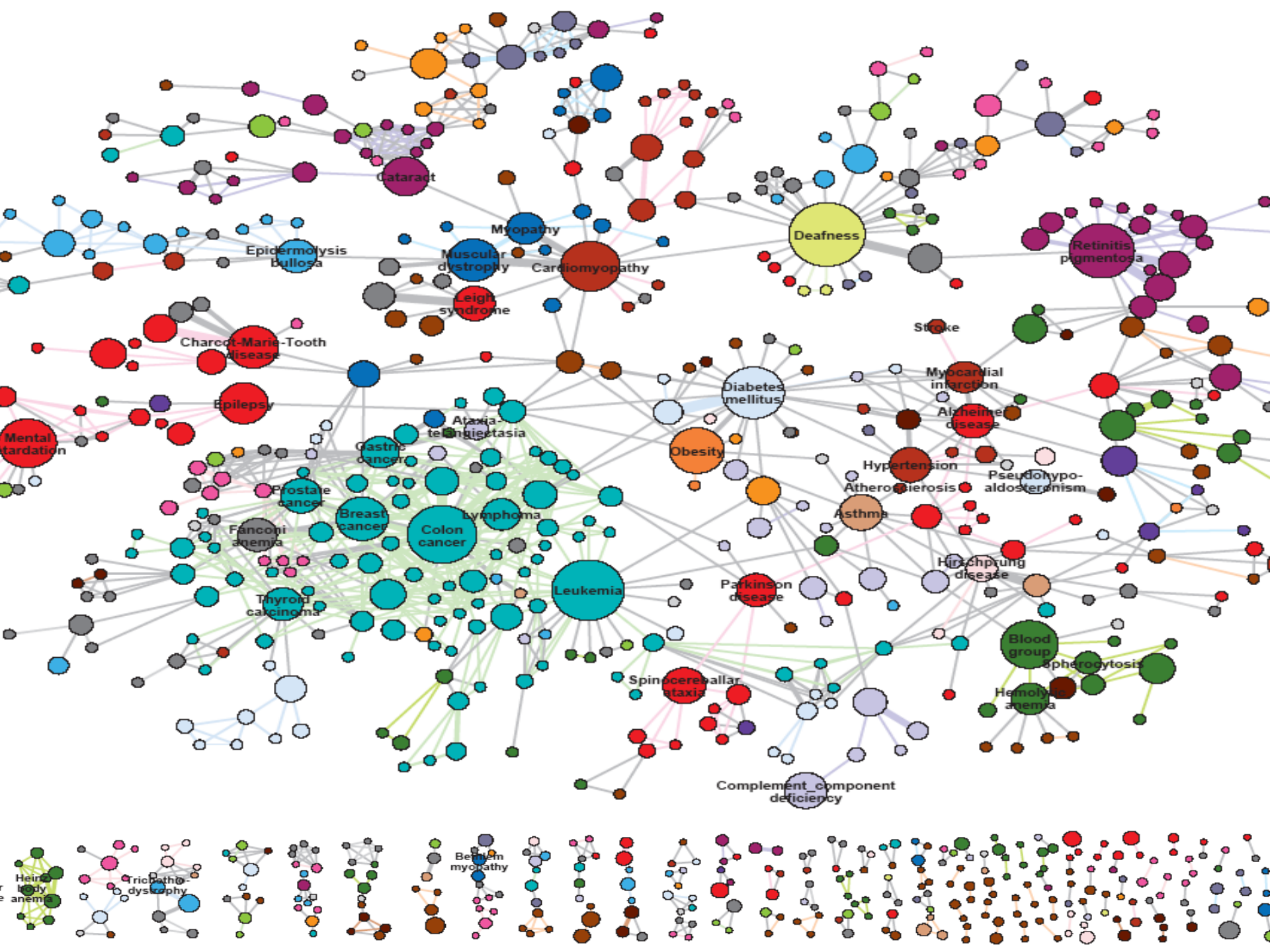
Enabling Humans

Complex Systems



made of many non identical elements
connected by diverse interactions





st. **ANDREW ROSS SORKIN**



RESEARCH BY MICHAEL DE LA MERCEDES; GRAPHIC BY GILBERT GATES FOR THE NEW YORK TIMES

associative memory and thinking



Enabling Humans

to analyze

Complex Systems



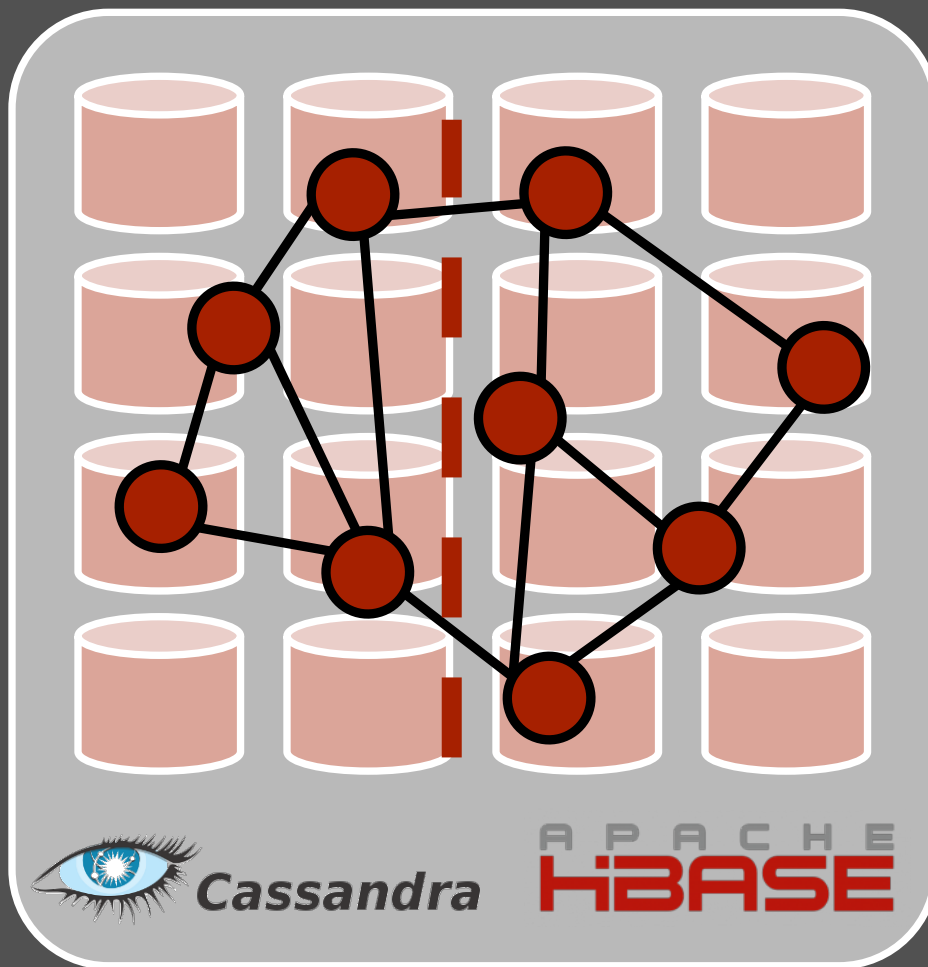
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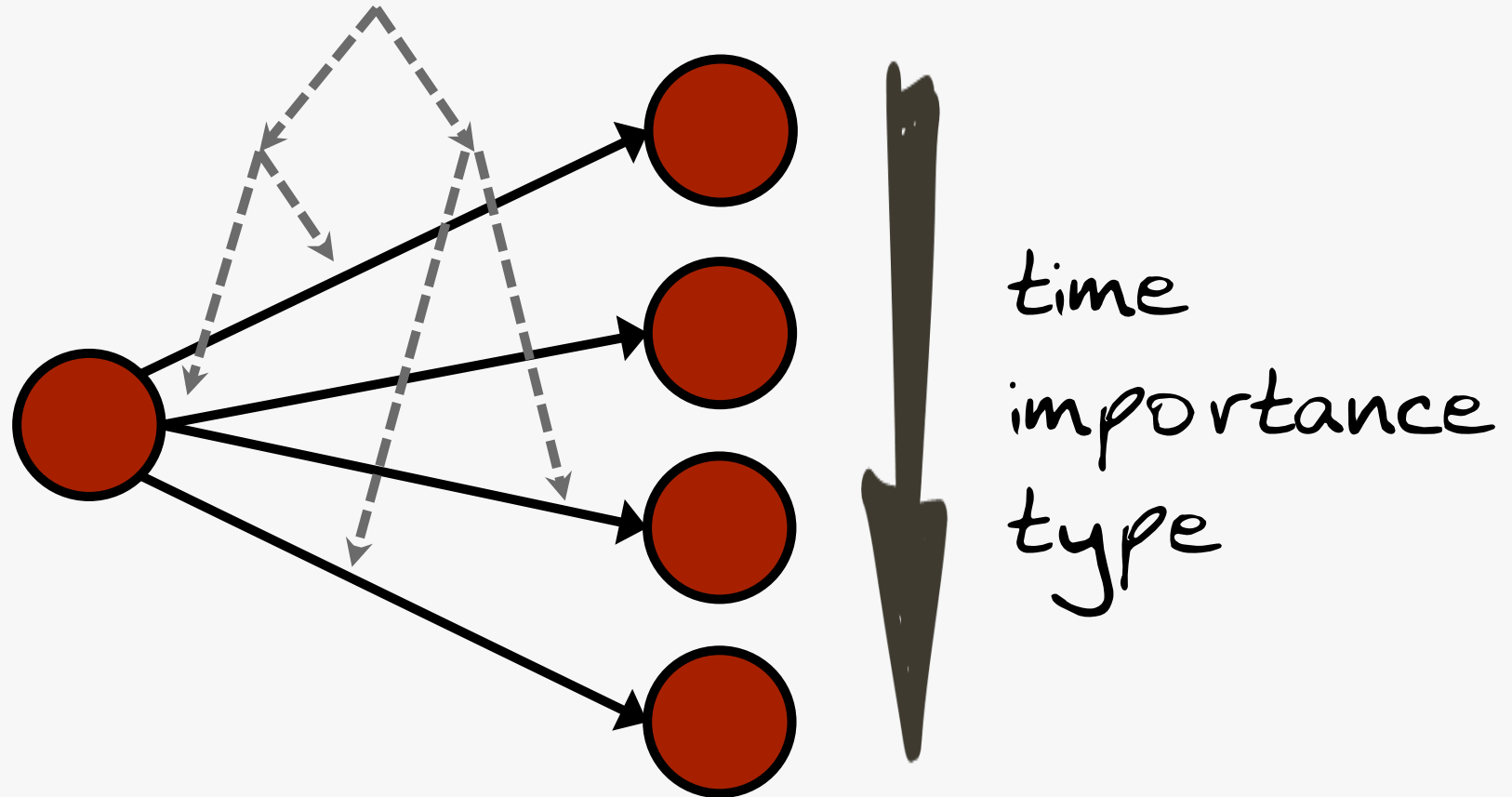
TITAN

DISTRIBUTED GRAPH COMPUTING AT SCALE

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Vertex-Centric Index

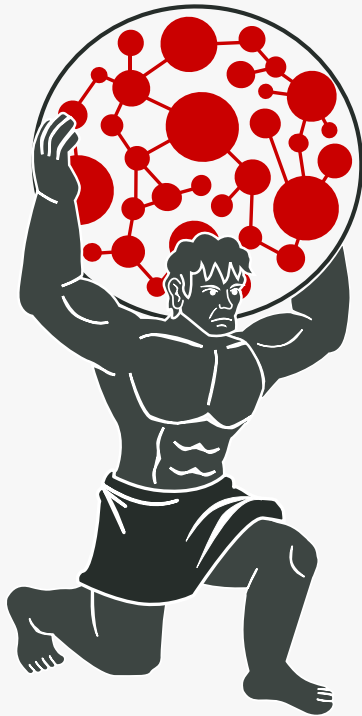


AURELIUS GRAPH CLUSTER

APACHE 2

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OLTP

`g.v(101).out`

Hadoop
MapReduce



OLAP

`g.V.label.groupCount`

Analysis results
back into Titan



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