

Challenges for Querying Big Data

Computer Science

f(x)

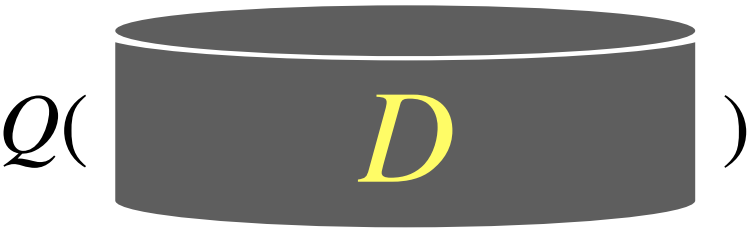
the computation of function

is the topic about

query answering

QED

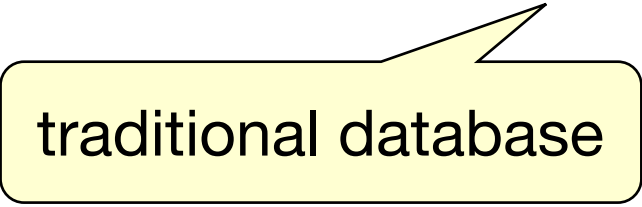




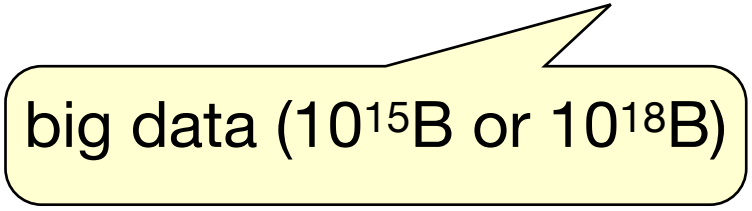
$Q($



)



traditional database



big data (10^{15} B or 10^{18} B)



Any fundamental challenges introduced by querying big data?

Challenges for Querying Big Data

Query answering is the topic about

the computation of function $Q(D)$



Any fundamental challenges introduced by querying big data?

A Graph Search query (Facebook)

find all my friends who have online update records from UK

- `friend(uid, fid)`
- `update(id, uid, country, date, post, ...)`

friend	
uid	fid
1 uid0	uid18
2 uid1	uid11
3 uid1	uid18
...	...

update					
id	uid	country	date	post	...
1 001	uid18	US	20160103	post#1	...
2 002	uid11	UK	20150103	post#2	...
3 003	uid11	UK	20170103	photo#3	...
...

```
SELECT fid
FROM   friend AS f, update AS u
WHERE  f.uid= uid1 AND f.fid=u.uid AND u.country=UK
```

my uid