# AstroDAbis:
# tagging neighbours remotely through TAP and LOD

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Astronomers are better at sharing data than sharing knowledge
AstroDAbis is about sharing knowledge through annotation

Annotations:
information about single objects, in the form of user–supplied tags
the results of, or raw information for, cross–matching, in the form of co–identifications or neighbour tables

Data is available in archives
Access to data is mediated by the VO
But that's data, not interpretation/knowledge

ADS (and the journals in general) have knowledge
...and links to NED & SIMBAD (sim CDS links with A&A)
And see Alberto's talk about data links & ADS
But machines can't read journals (yet)
...and nothing from the data to the literature

# "give me all the sources in this catalogue that have been identified as quasars"

this limits the effective exploitation of these archives,
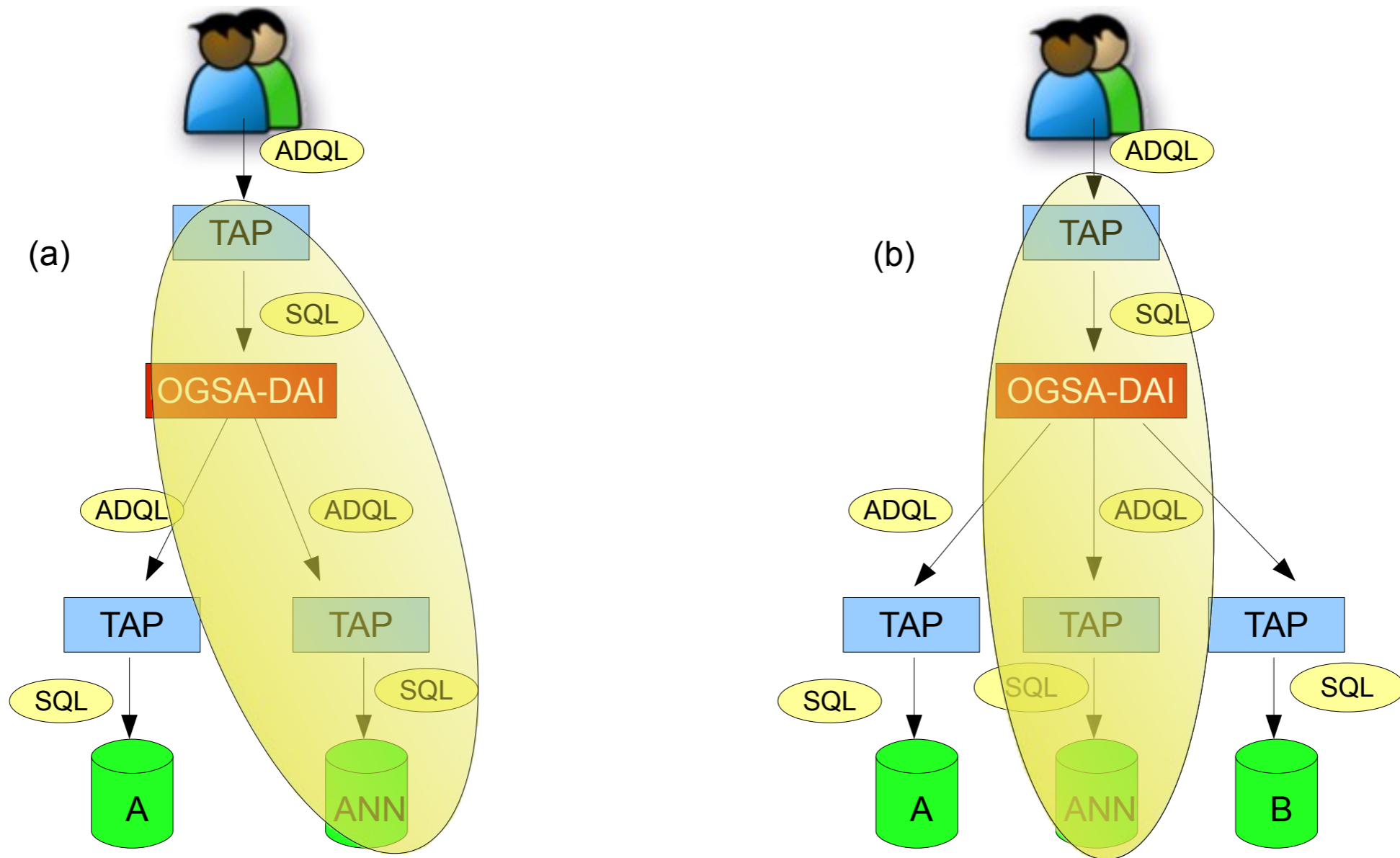– the user of an archive has no direct means of taking advantage of the existing knowledge

Cross-match or neighbour tables are archive-specific

...and not shared

...and can't be inter-archive

AstroDAS system: Bose, Mann & Prina-Ricotti (2006) adapted DAS to OpenSkyQuery

BioDAS: biology community has a system which allows for distributed annotation of genetic sequences

TAP service provides the federated schema that allows people to make distributed queries in the VO for the first time (in a standards-compliant way - i.e. SkyQuery was great, but wasn't implementing IVOA standards).

# Binary relations...

| ident | subjcol | subjid | objcol | objid | rel |
|-------|---------|--------|--------|-------|-----|
| 123 | cat1 | 'abcd' | cat2 | 'efgh' | 'contain' |

| ident | subjcol | subjid | tag |
|-------|---------|--------|-----|
| 123 | cat1 | 'abcd' | quasar |

...and unary relations

```
<http://example3.org/foo/123>
  tagged [
    tag "quasar";
    tagger <http://astrodabis/u/99> ];
  hasNeighbour [
    obj <http://example4.org/bar/456>;
    sepArcsec "10";
    tagger <http://astrodabis/u/99> ];
  inPaper <http://ads/2001bibcode>.

<http://example1.org/messier/31>
  owl:sameAs <http://example2.org/ngc/224>.
```

(schema TBC)

Schema still provisional
Illustrated as Linked Data; stress available through TAP
Built to be extensible – links to SIMBAD & dbpedia?
Don't have to be in same catalogue
We expect this to be deployed at ROE