Continuously Updated Data And The Registry

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- Two use cases
- Temporal coverage
- Declaring updates

What are we talking about, anyway? Resources to which data is continuously added, such as VOEvent streams, archives of active observatories, scanning projects while they are running. . . Let's call them CU resources here.

Two Use Cases

Coverage. A user wants to locate data for a certain point in time, probably long after a CU resource has been registered.

Mutability. A user does an all-VO query and gets some result from a resource. They would now like to know whether a future query will yield the same result; ideally, they would even get an idea when they ought to revisit the CU resource

The Coverage Use Case

How do we arrange for

```
... NATURAL JOIN rr.stc_temporal
WHERE 1=ivo_interval_overlaps(
  <last_week>, <today>, time_start, time_end)
```

to be true four years after initial registration?

Let's not require operators to come back every time they add new data to update the upper limit of their temporal coverage.
Let's instead ask them to put in the *prospective* end of their instrument as the upper time limit.
Fallback: write "10 years from now" and have an internal plan to update that value every five years.

The Mutability Use Case

How do we arrange for

```
... NATURAL JOIN rr.res_date
WHERE value_role='updated'
  AND date_value > (last-time-i-tried)
```

to yield CU resources that (may) have updated their data since (last-time-i-tried)?

Again let's not ask data providers to upload a new resource record every time they do update their data holdings. Let's instead ask them to have a

```xml
<curation>
  <publisher>IMCCE</publisher>
  <creator>
    <name>CHIME/FRB Collaboration</name>
  </creator>
  <date role="updated"
    >2035-05-01T00:00:00Z</date>
```

Homework?

What I think we should say is

Let T be the time your resource will stop adding data, or now+10 years, whatever is earlier. Then put T as MJD into coverage/temporal and as a DALI date into a date[@role='updated']. Schedule to revisit these two places in five years or when your data addition stops, whatever is earlier.

I think this ought to be said in VODataService.

Does anyone see a problem with that? Should I get going?