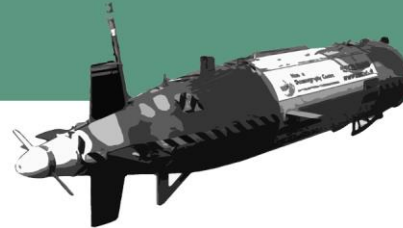
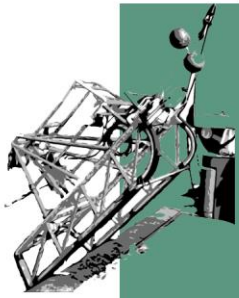


THE BIG PICTURE II

Benthic Imagery Workshop 2021



TheBigPicture@jncc.gov.uk

Benthic imagery catalogues

Graeme Duncan
03 March 2021



Image catalogues

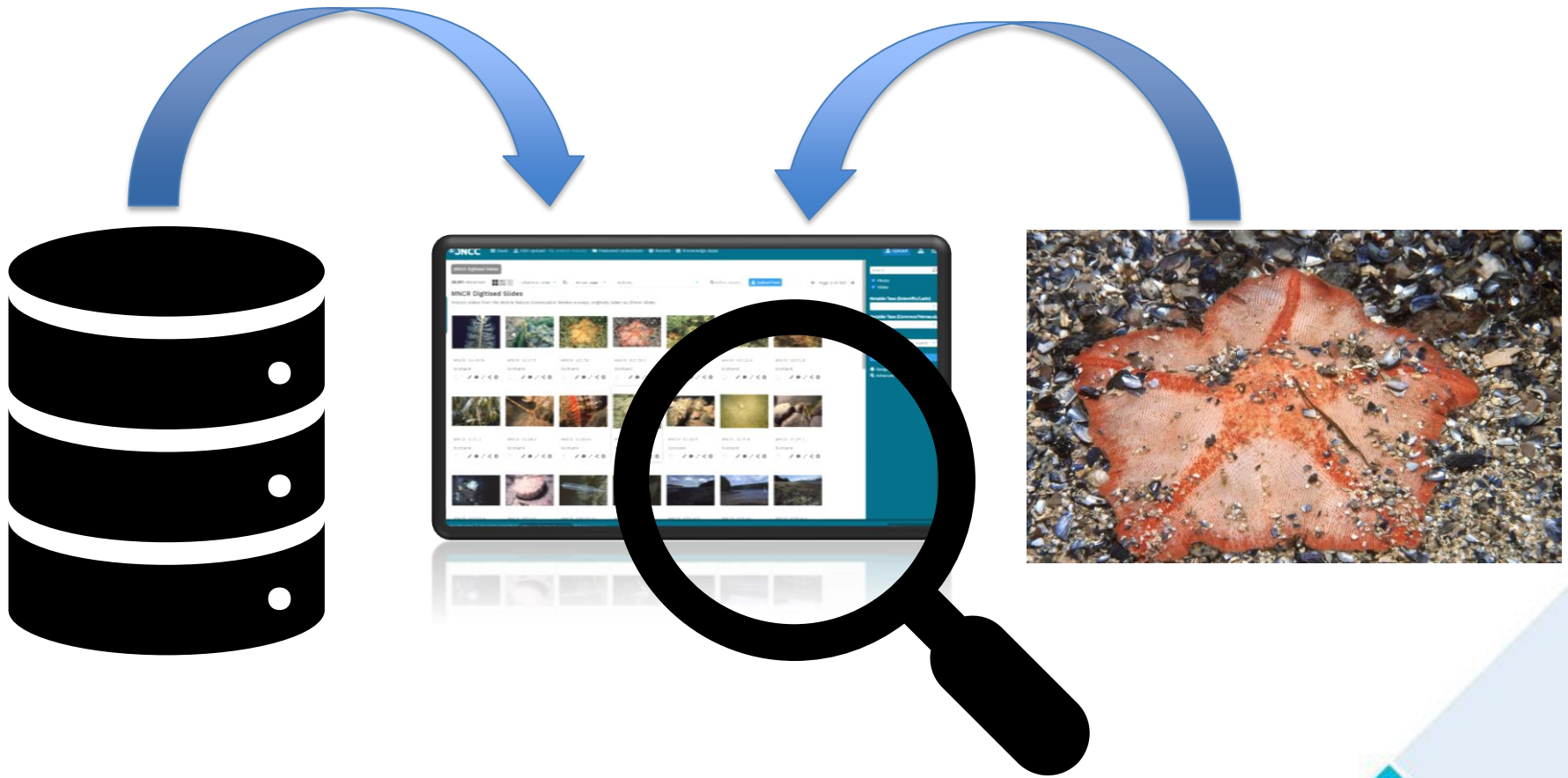
The screenshot displays the JNCC (Joint Nature Conservation Committee) image catalogue interface. The top navigation bar includes links for Dash, CSV upload, Search results, Featured collections, Recent, and Knowledge Base. A search bar is located on the right side of the header.

The main content area is titled "MNCR Digitised Slides" and shows a grid of 21 image thumbnails. Each thumbnail is accompanied by a label indicating the collection (e.g., MNCR: S3.49.19) and the location (Scotland). Below each image is a set of icons for actions like download, share, and zoom.

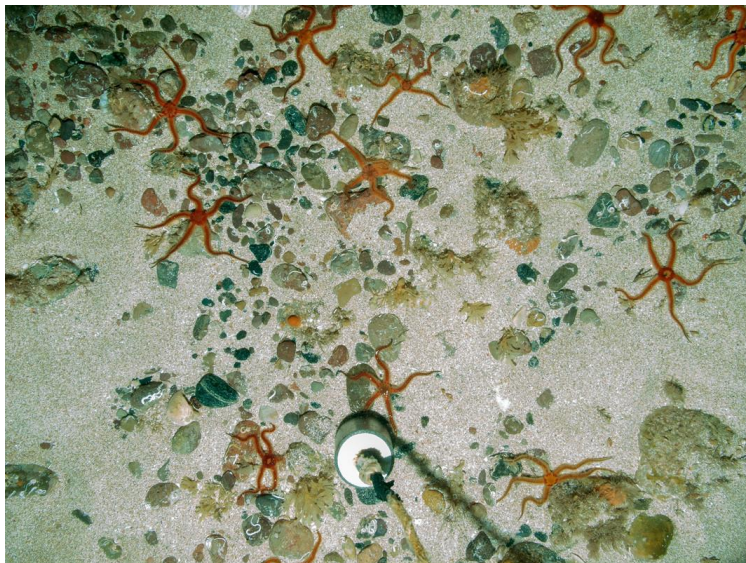
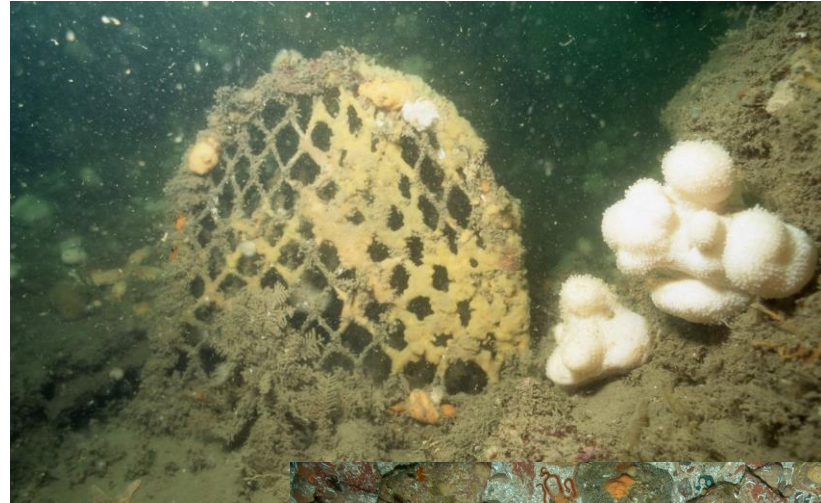
On the right side, there is a sidebar with search filters. It includes a search bar, checkboxes for "Photo" and "Video", dropdown menus for "Notable Taxa (Scientific/Latin)" and "Notable Taxa (Common/Vernacular)", and a "By date" section with "Any year" and "Any month" options. There are also buttons for "Clear" and "Search", and links for "Geographic search" and "Advanced search".

At the bottom of the interface, there is a footer bar with the text "Show thumbs | Current collection: Offshore Benthic Survey | 0 items" and an "Actions..." dropdown menu.

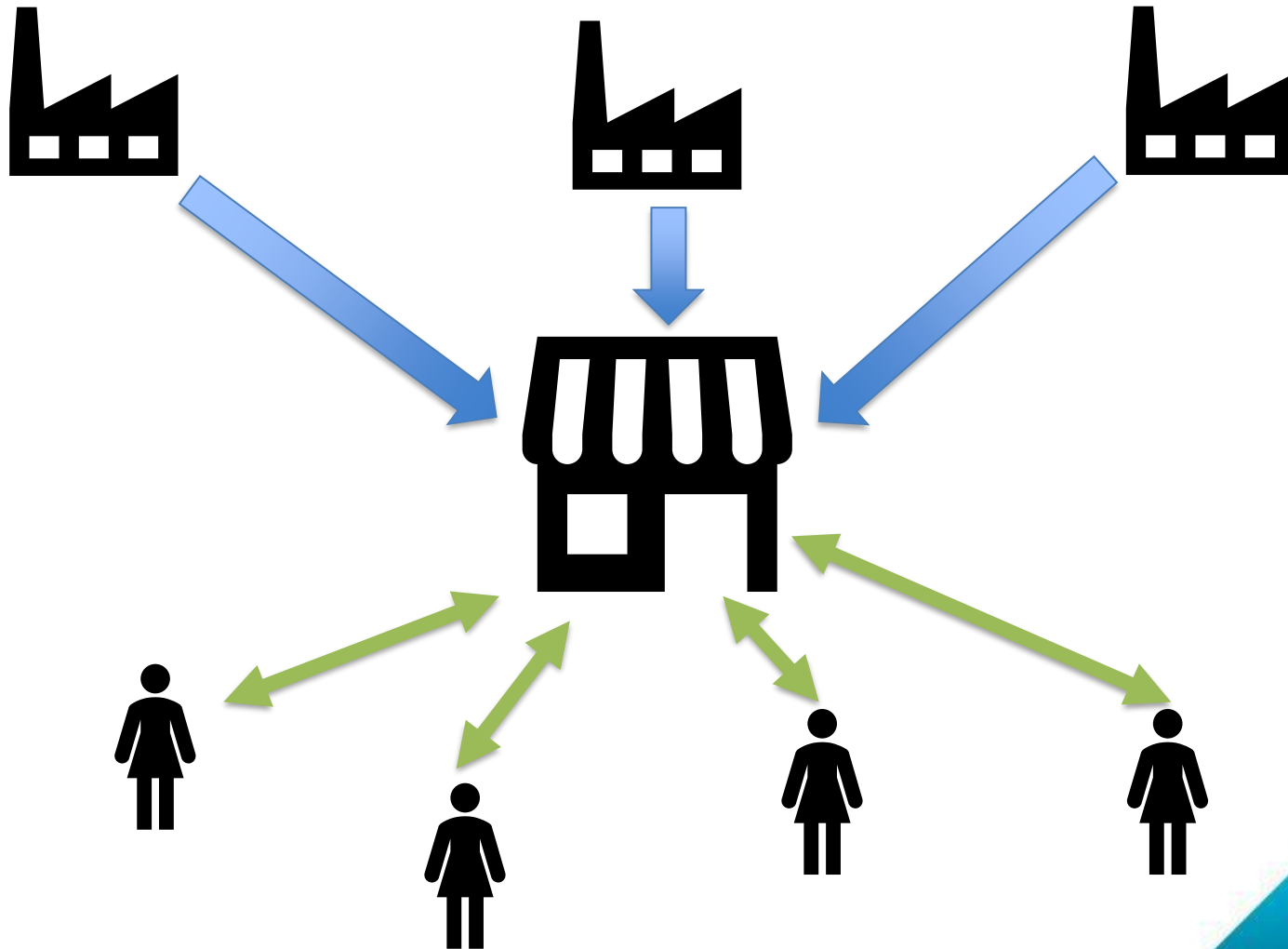
Image catalogues



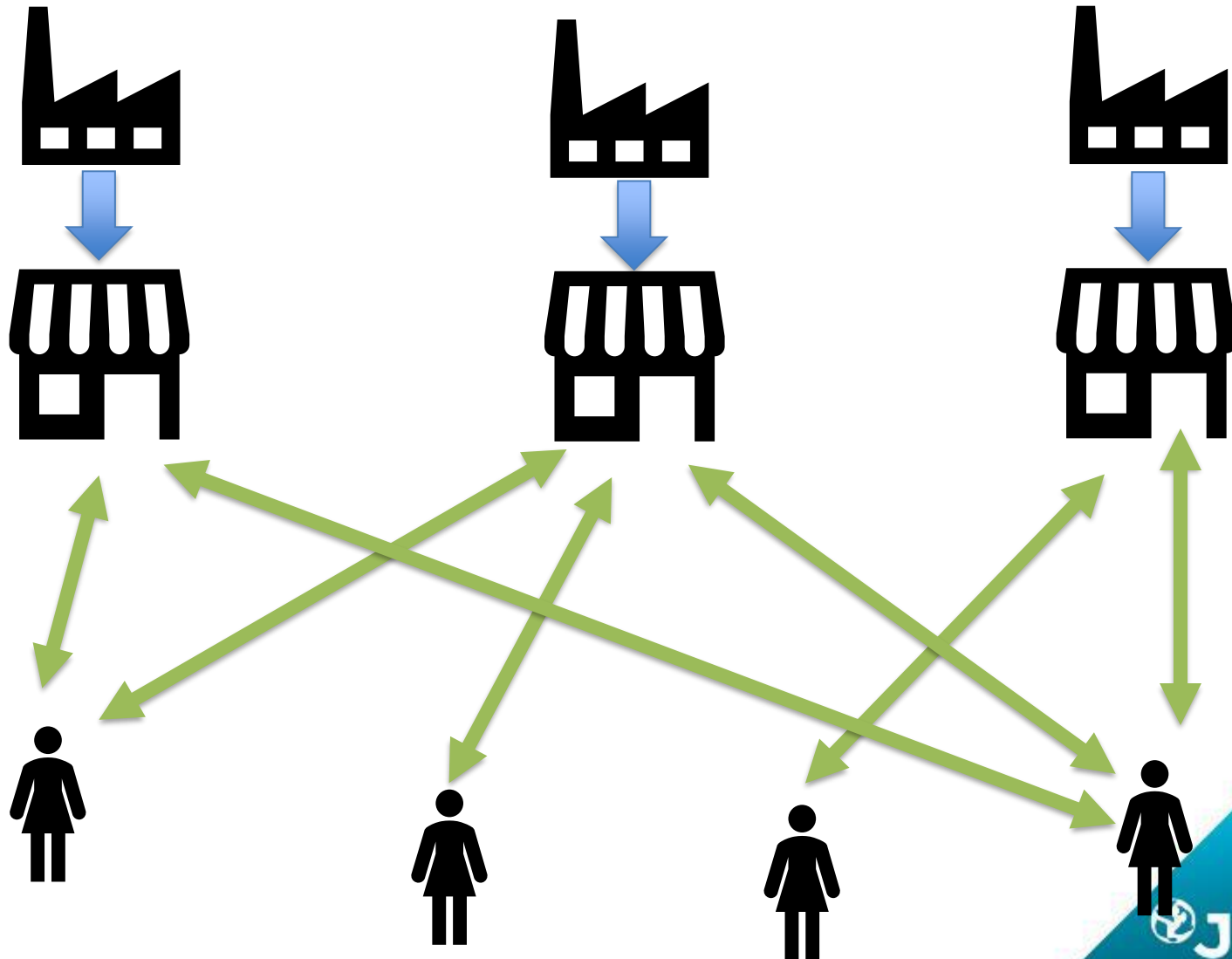
How do we structure this?



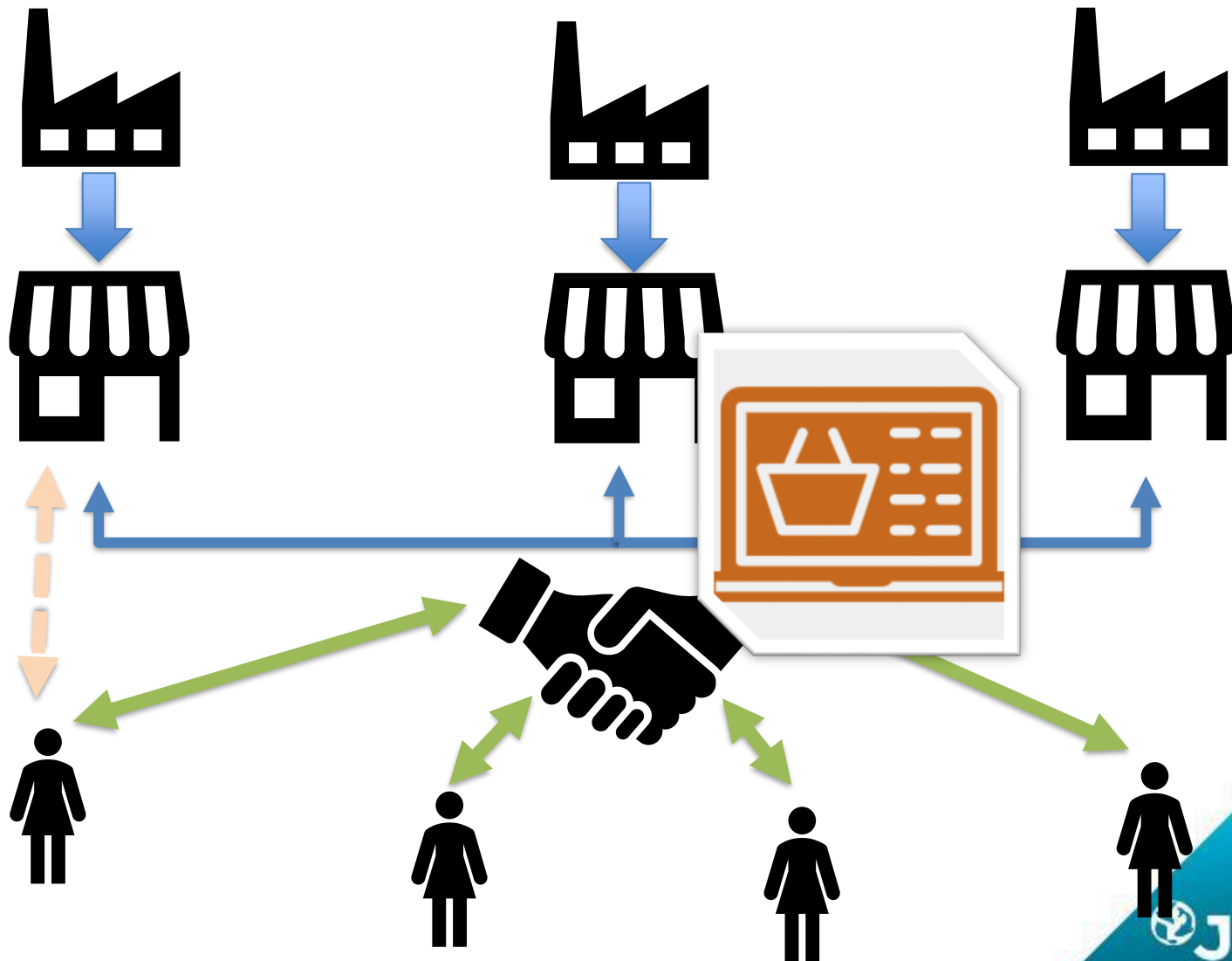
Centralisation vs Distributed



Centralisation vs Distributed



Centralisation vs Distributed



Centralisation vs Distributed



- Simpler management
- Simpler setup
- Easier to quality control
- Takes control from the providers
- Less flexible
- Catalogues already exist
 - Duplicate or shutdown?
- Scale vertically
- Can move processing TO the data

THOUGHTS?



- More complex
- Everything needs to talk
- Harder to control from the top
- More control from the providers
- More flexible
- Scale horizontally?

Annotations



Annotations

2. Web Annotation Principles

3. EXAMPLE 15: Motivation and Purpose

```
3.1 {
3.2   {
3.2.1     "@context": "http://www.w3.org/ns/anno.jsonld",
3.2.2     "id": "http://example.org/anno15",
3.2.3     "type": "Annotation",
3.2.4     "motivation": "bookmarking",
3.2.5     "body": [
3.2.6       {
3.2.7         {
3.3           "type": "TextualBody",
3.3.1           "value": "readme",
3.3.2           "purpose": "tagging"
3.3.3         },
3.3.4         {
3.3.5           "type": "TextualBody",
3.3.6           "value": "A good description of the topic that bears further investigation",
3.3.7           "purpose": "describing"
3.4         }
3.5       ],
3.6     "target": "http://example.com/page1"
3.7   }
4.1 }
4.2 }
4.2.1 }
4.2.2 }
4.2.3 }
4.2.4 }
4.2.5 }
```



Annotations

Again, bridges the gap between “data” and “images”

Should they be part of an image, or “their own thing” (i.e. data) that simply references an image?

Image catalogues vs reference catalogues

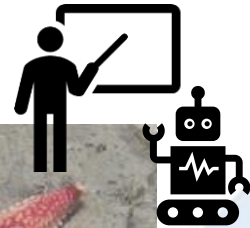
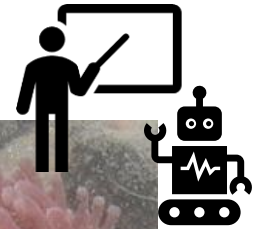
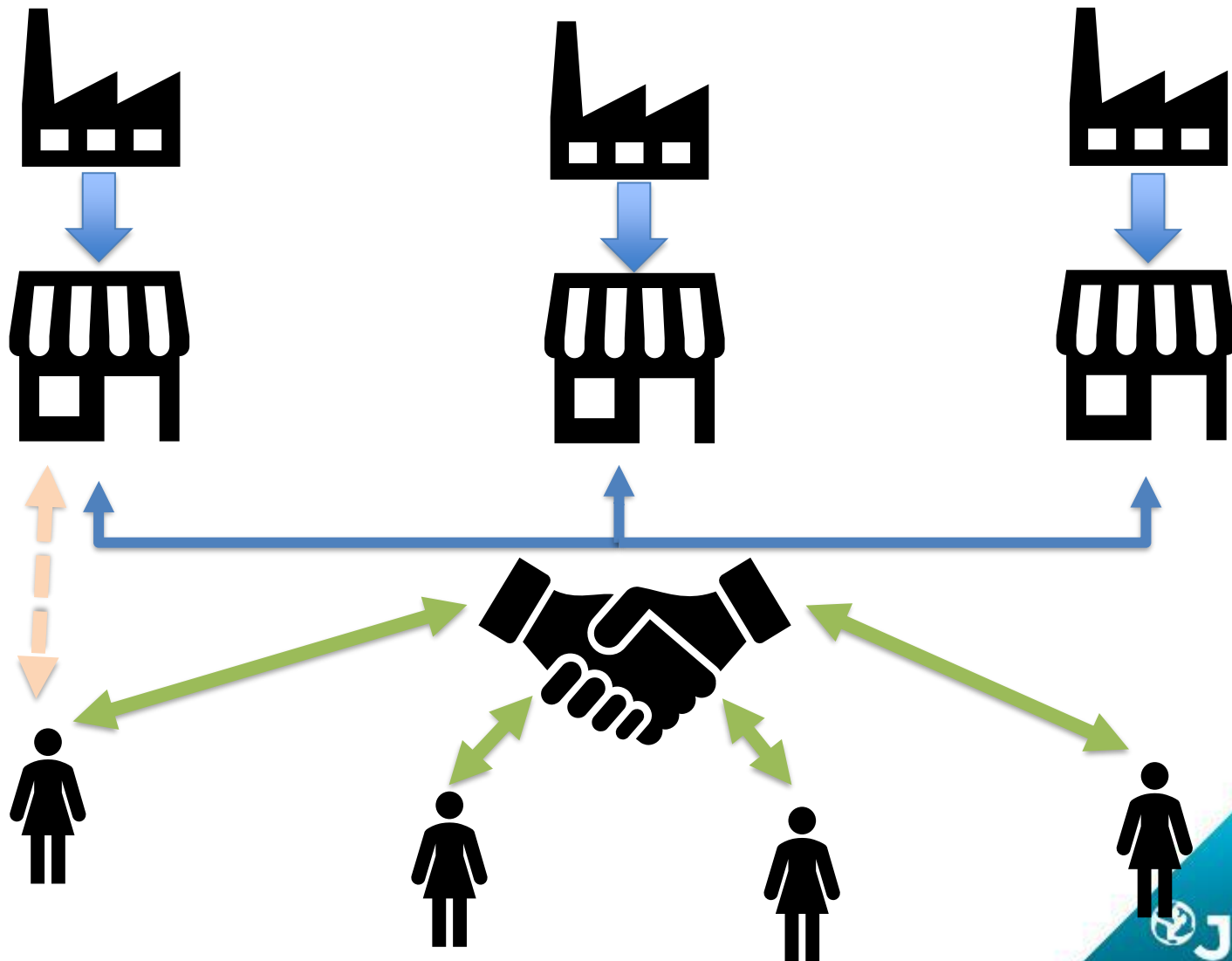


Image catalogues vs reference catalogues

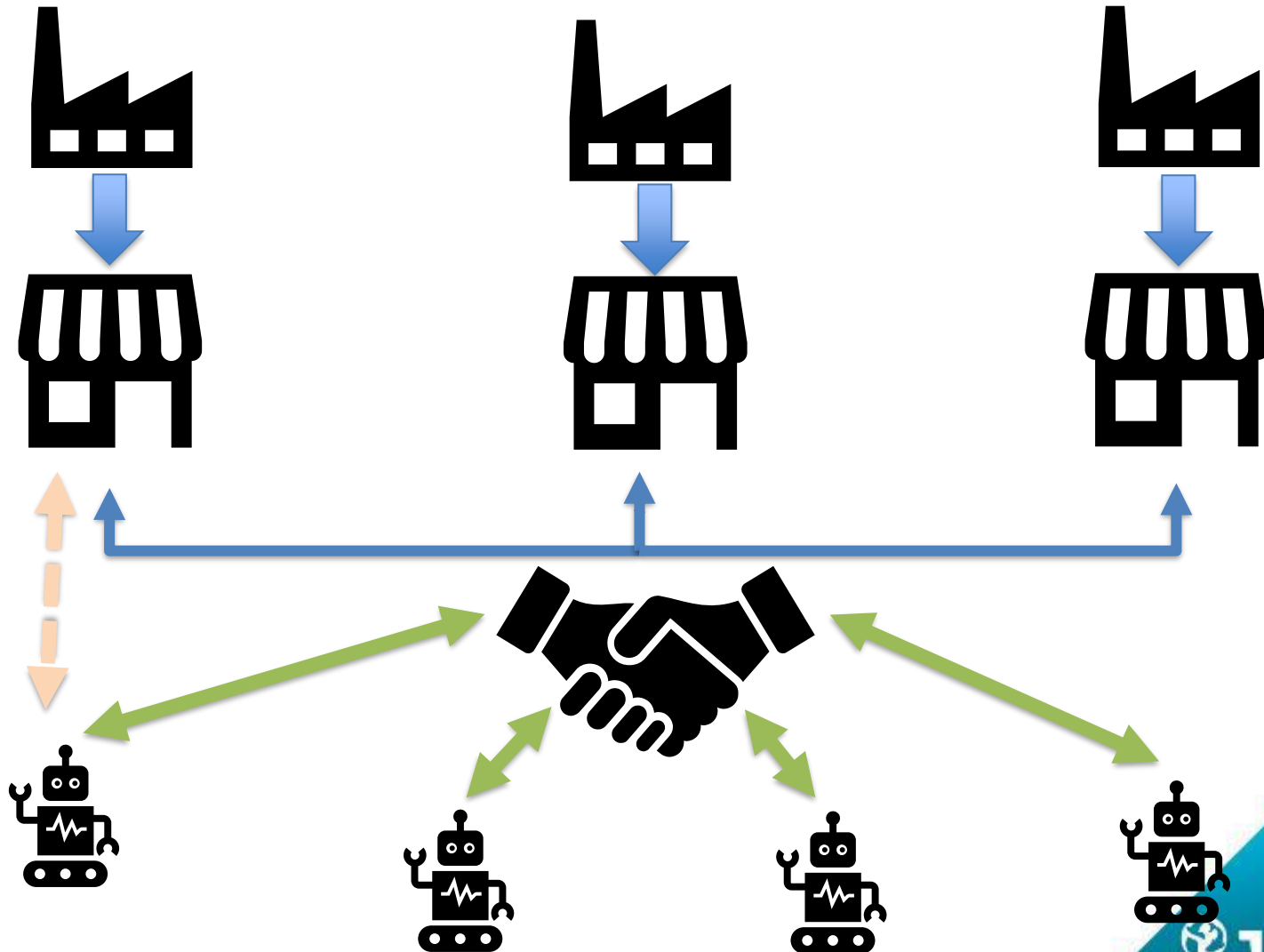
Are reference catalogues simply reference annotations?



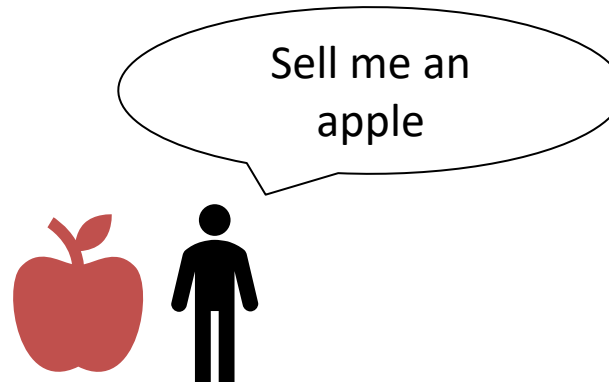
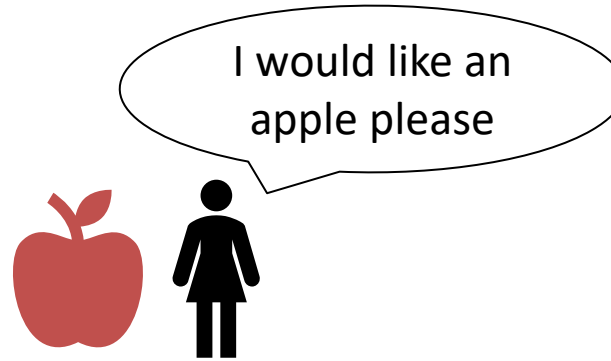
Machine-accessible infrastructures



Machine-accessible infrastructures

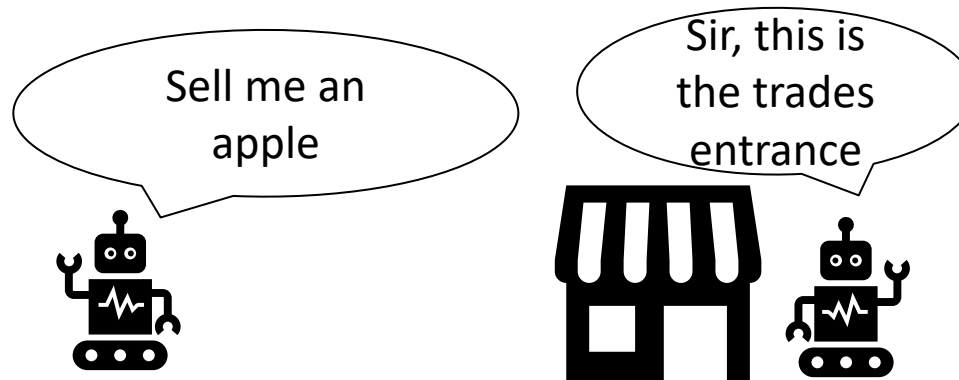


Machine-accessible infrastructures

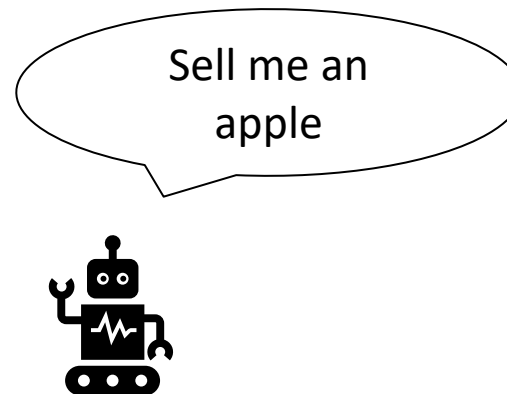
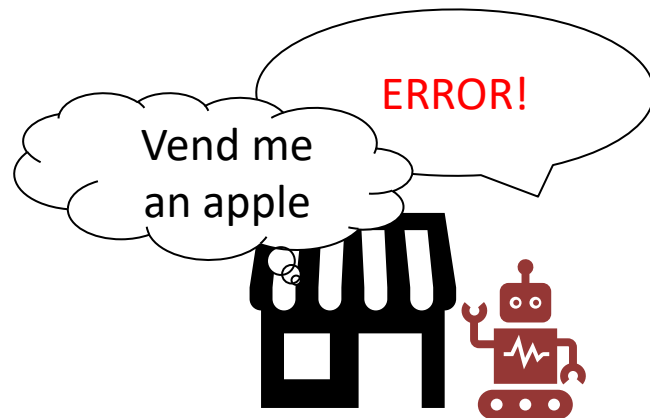
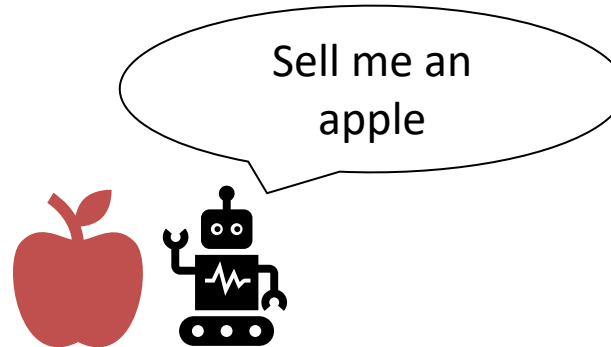


Machine-accessible infrastructures

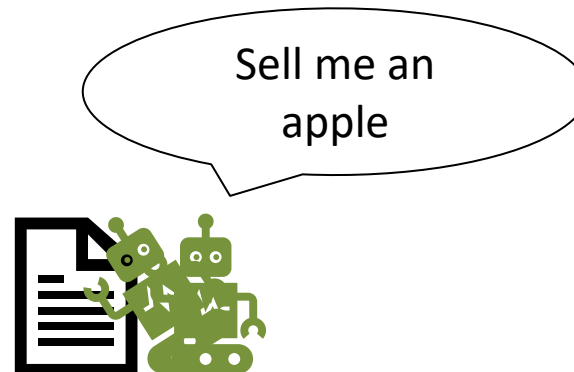
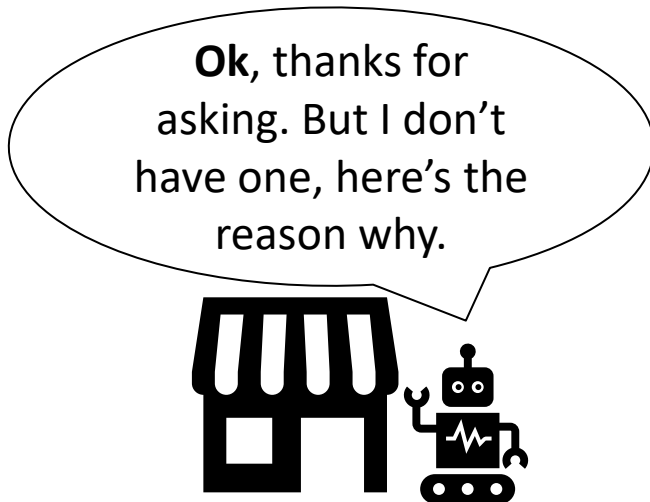
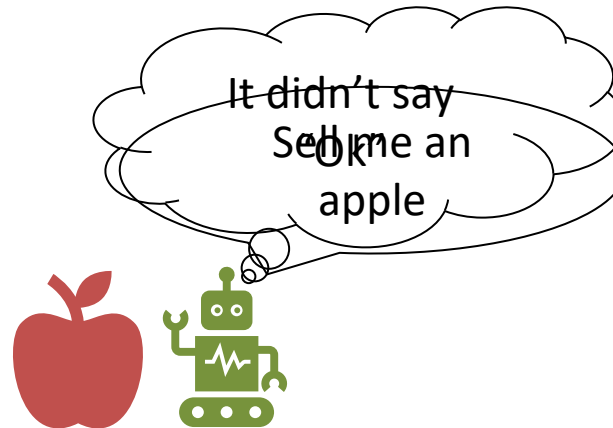
Computers can be incredibly good at specific tasks...
...But they're also very naive



Machine-accessible infrastructures



Machine-accessible infrastructures



Machine-accessible infrastructures

- The solution needs to hold the computer's hand as much as possible to guide it to asking for the correct information, and understanding the information it gets
- Interoperability
 - “Knowing how to interact”
- Standards
 - “Knowing what you'll get”

Interoperability

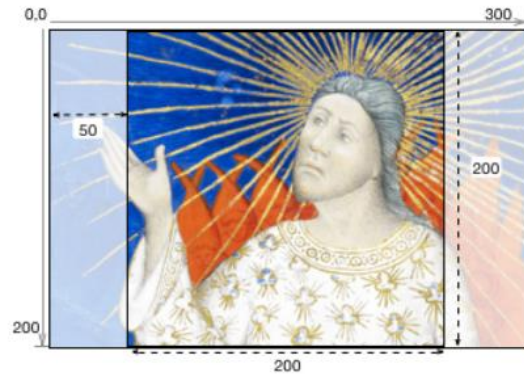


International
Image



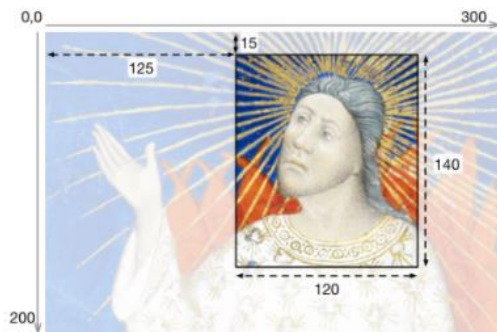
1 region=full

<https://example.org/image-service/1234/full/max/0/default.jpg>



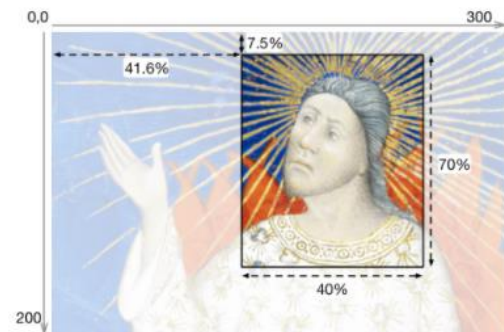
2 region=square

<https://example.org/image-service/1234/square/max/0/default.jpg>



3 region=125,15,120,140

<https://example.org/image-service/1234/125,15,120,140/max/0/default.jpg>



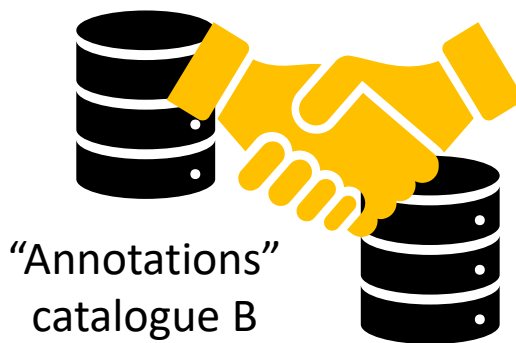
4 region=pct:41.6,7.5,40,70

<https://example.org/image-service/1234/pct:41.6,7.5,40,70/max/0/default.jpg>

So how does it all connect?

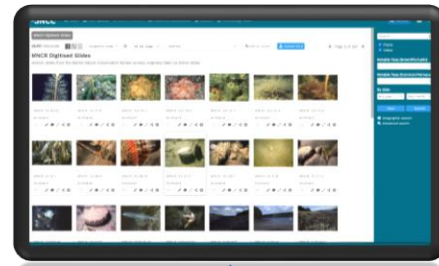


Reference
catalogue B



"Annotations"
catalogue A

So (how) does it all connect?



"Annotations"
catalogue



Reference
catalogue

Pilot study?

Moving forward

- Determine each item's "niche" in the ecosystem
- Fill in the missing gaps in the network
- Adapt or develop standards for our own purposes
 - Imagery metadata
 - **Annotation**
- Work towards a pilot framework or ecosystem for image catalogues
 - Images
 - Annotations
 - Reference collections
 -*Data?*
- Keeping machine learning as a key "customer" and test case

