THE BIG PICTURE II

Benthic Imagery Workshop 2021

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Benthic imagery catalogues

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03 March 2021

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Image catalogues

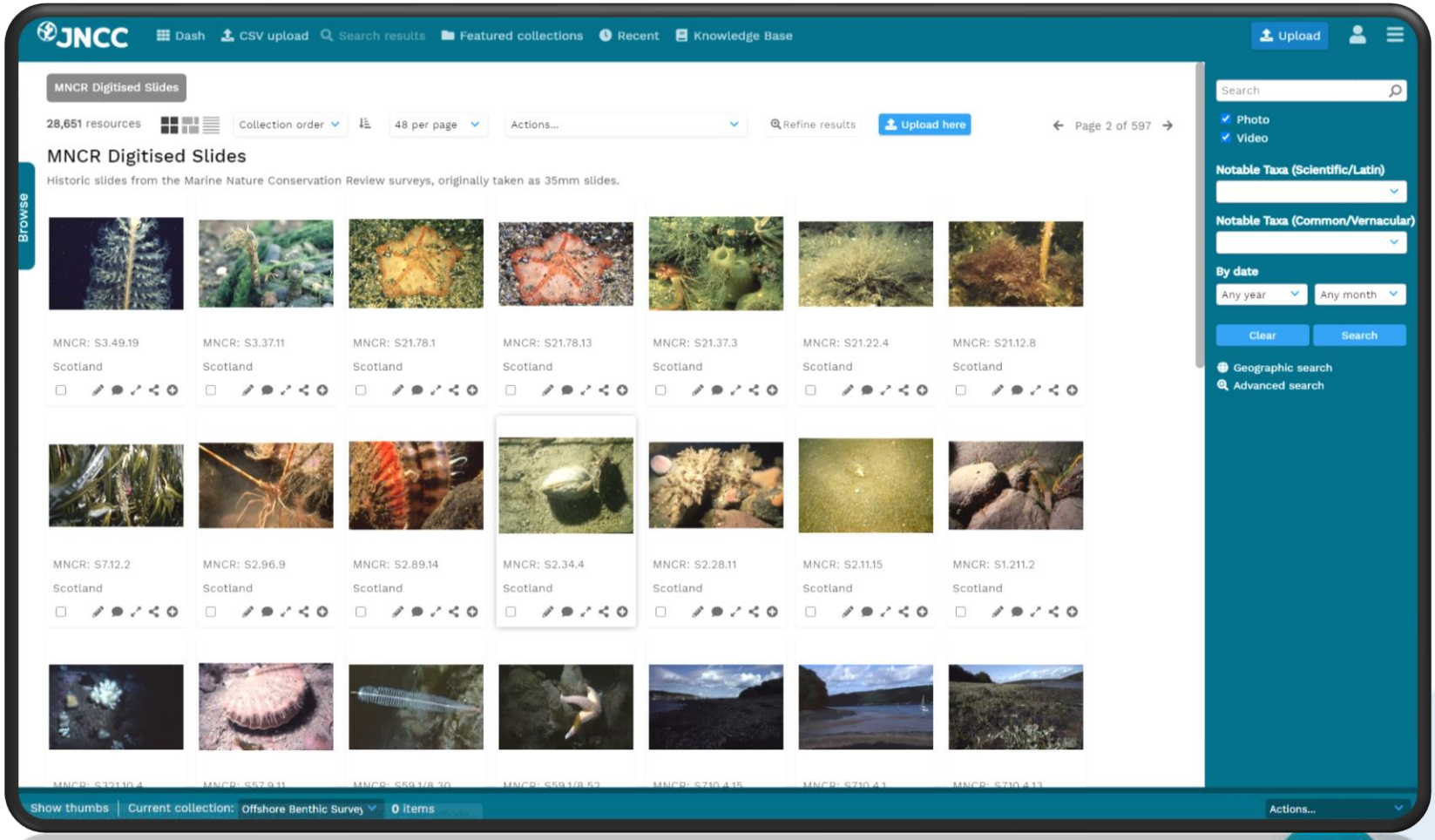
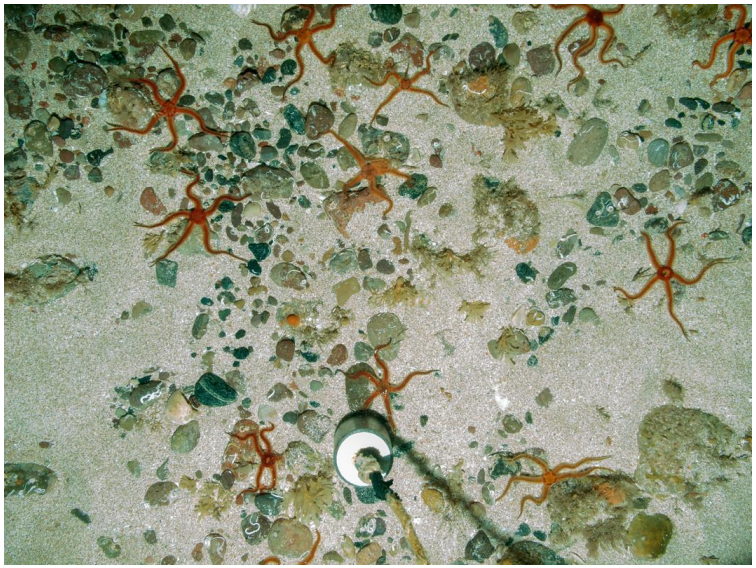


Image catalogues

How do we structure this?



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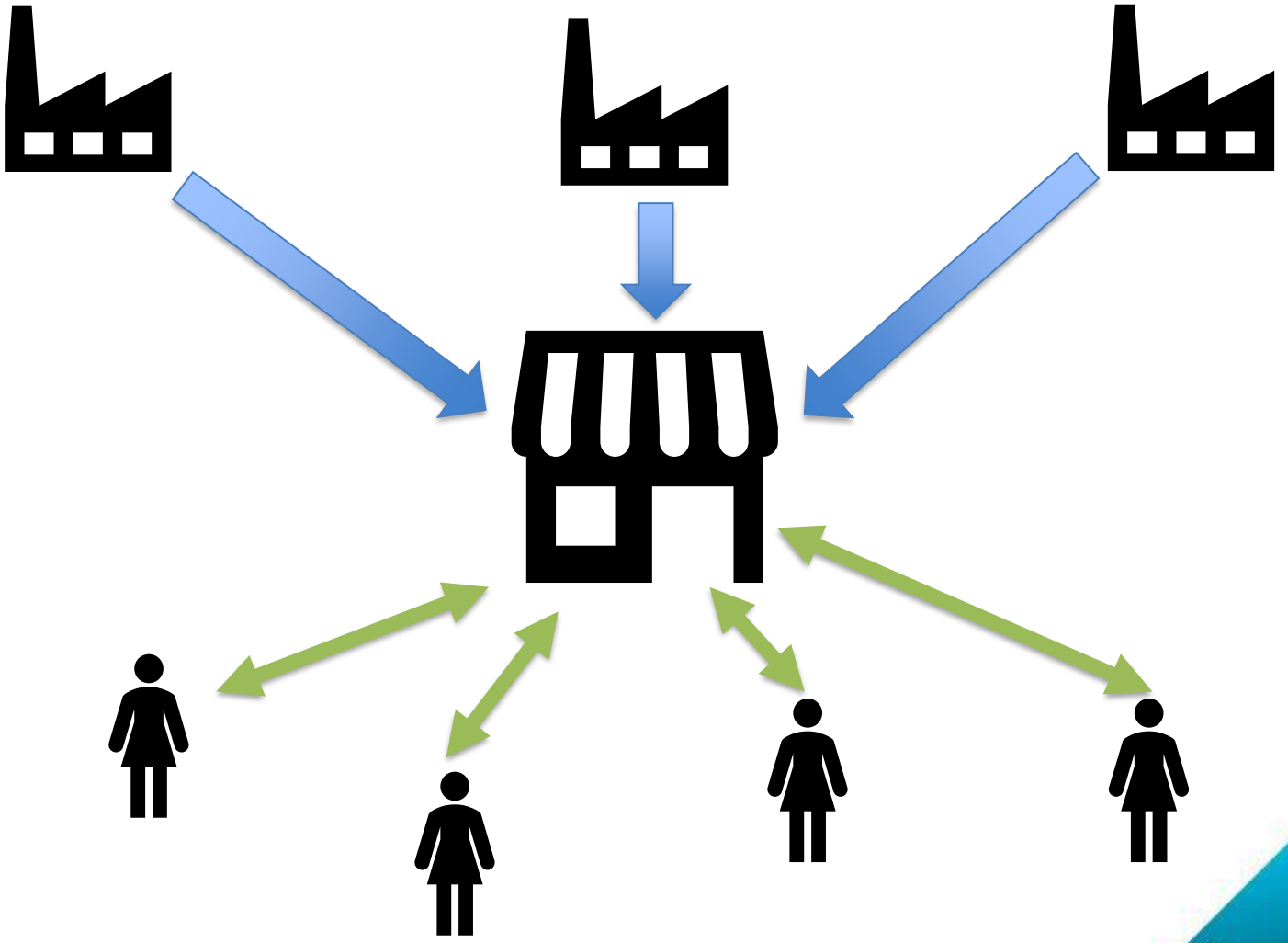
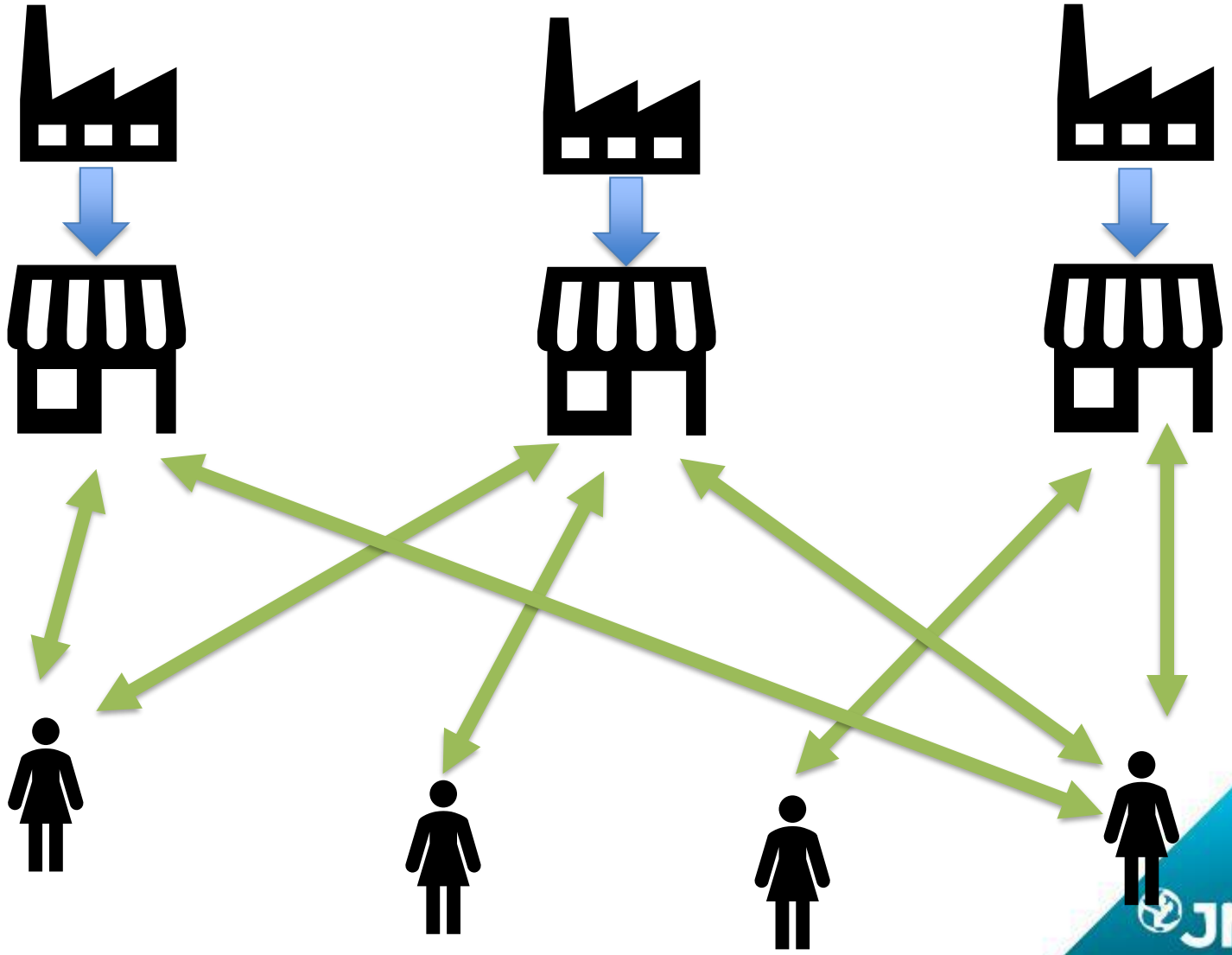
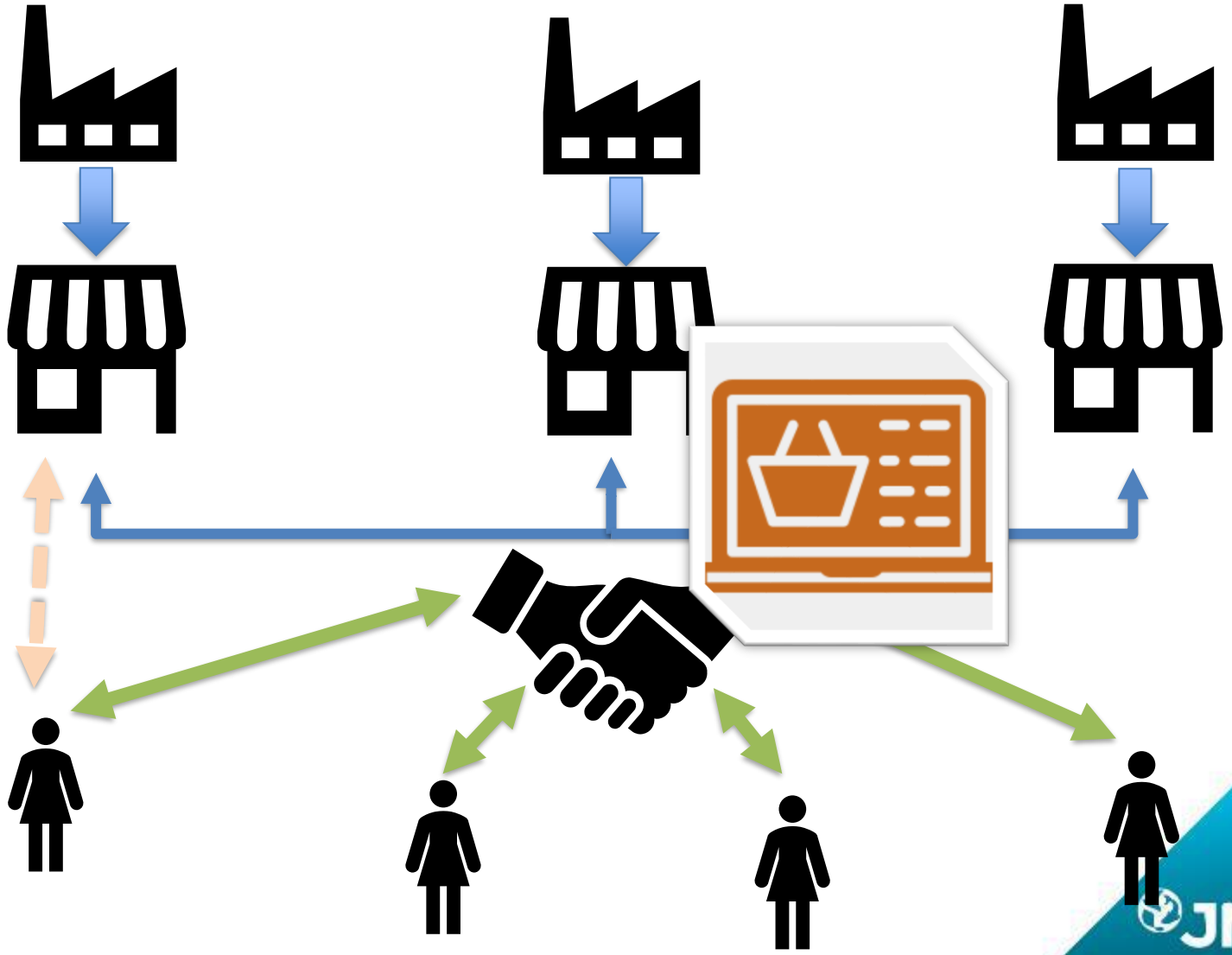
Centralisation vs Distributed



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?

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Annotations

Annotations

W3C Recommendation

2. Web Annotation Principles

3.
3.1
3.2
3.2.1
3.2.2
3.2.3
3.2.4
3.2.5
3.2.6
3.2.7
3.3
3.3.1
3.3.2
3.3.3
3.3.4
3.3.5
3.3.6
3.3.7

4.
4.1
4.2
4.2.1
4.2.2
4.2.3
4.2.4
4.2.5 Text Position Selector

EXAMPLE 15: Motivation and Purpose

```
{
  "@context": "http://www.w3.org/ns/anno.jsonld",
  "id": "http://example.org/anno15",
  "type": "Annotation",
  "motivation": "bookmarking",
  "body": [
    {
      "type": "TextualBody",
      "value": "readme",
      "purpose": "tagging"
    },
    {
      "type": "TextualBody",
      "value": "A good description of the topic that bears further investigation",
      "purpose": "describing"
    }
  ],
  "target": "http://example.com/page1"
}
```

The English version of this specification is the only normative version. Non-normative translations may also be

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

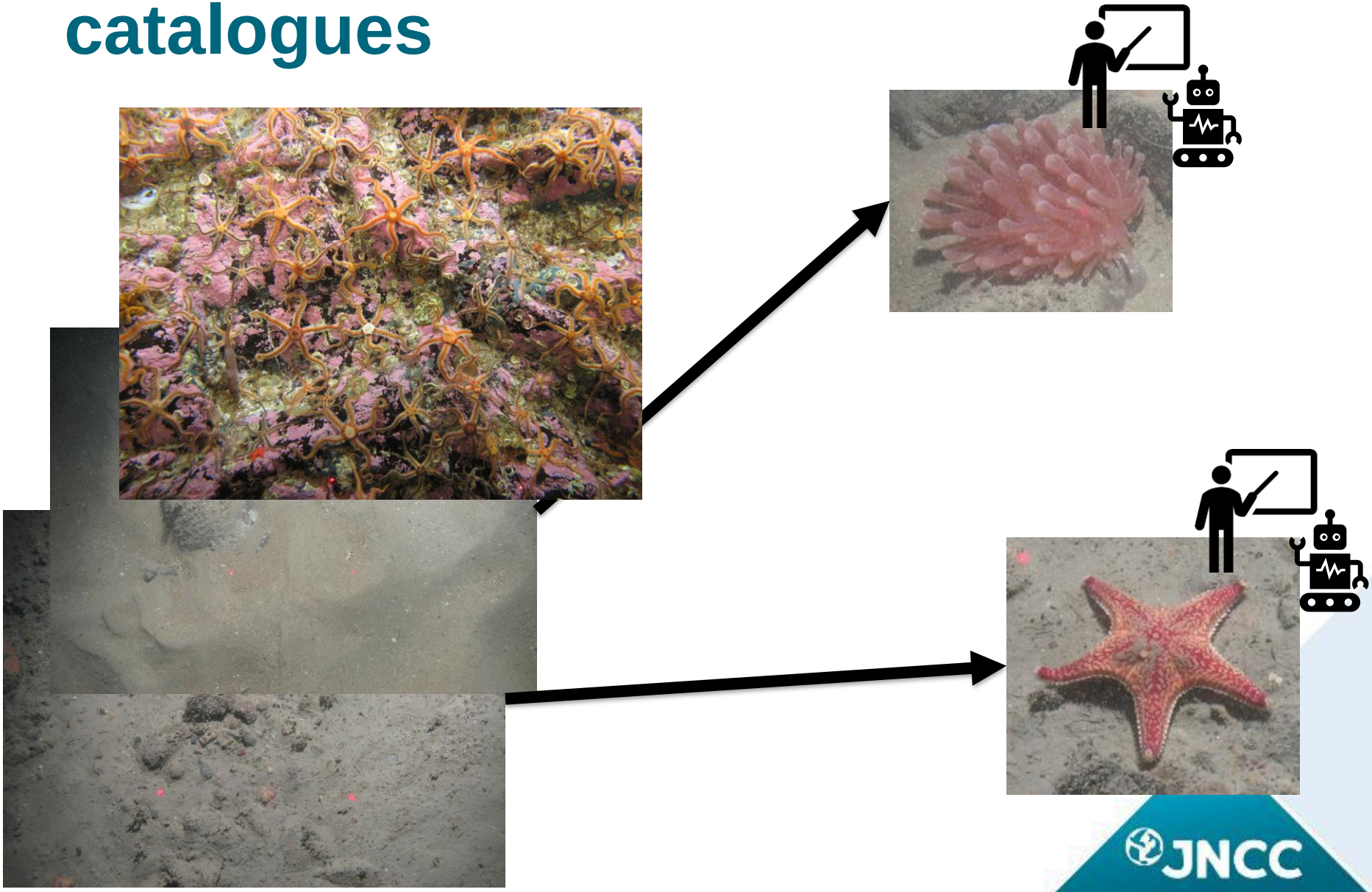
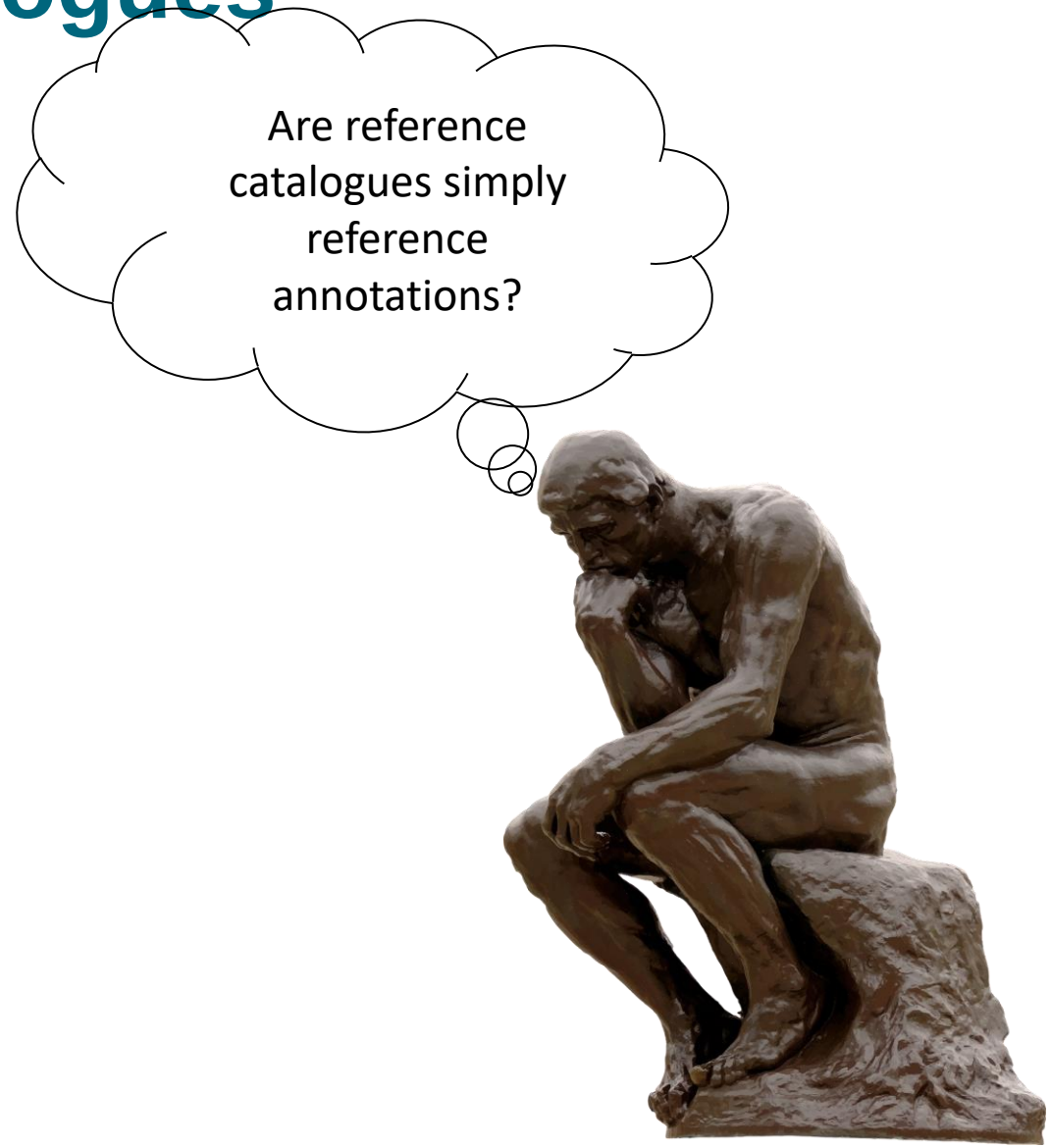
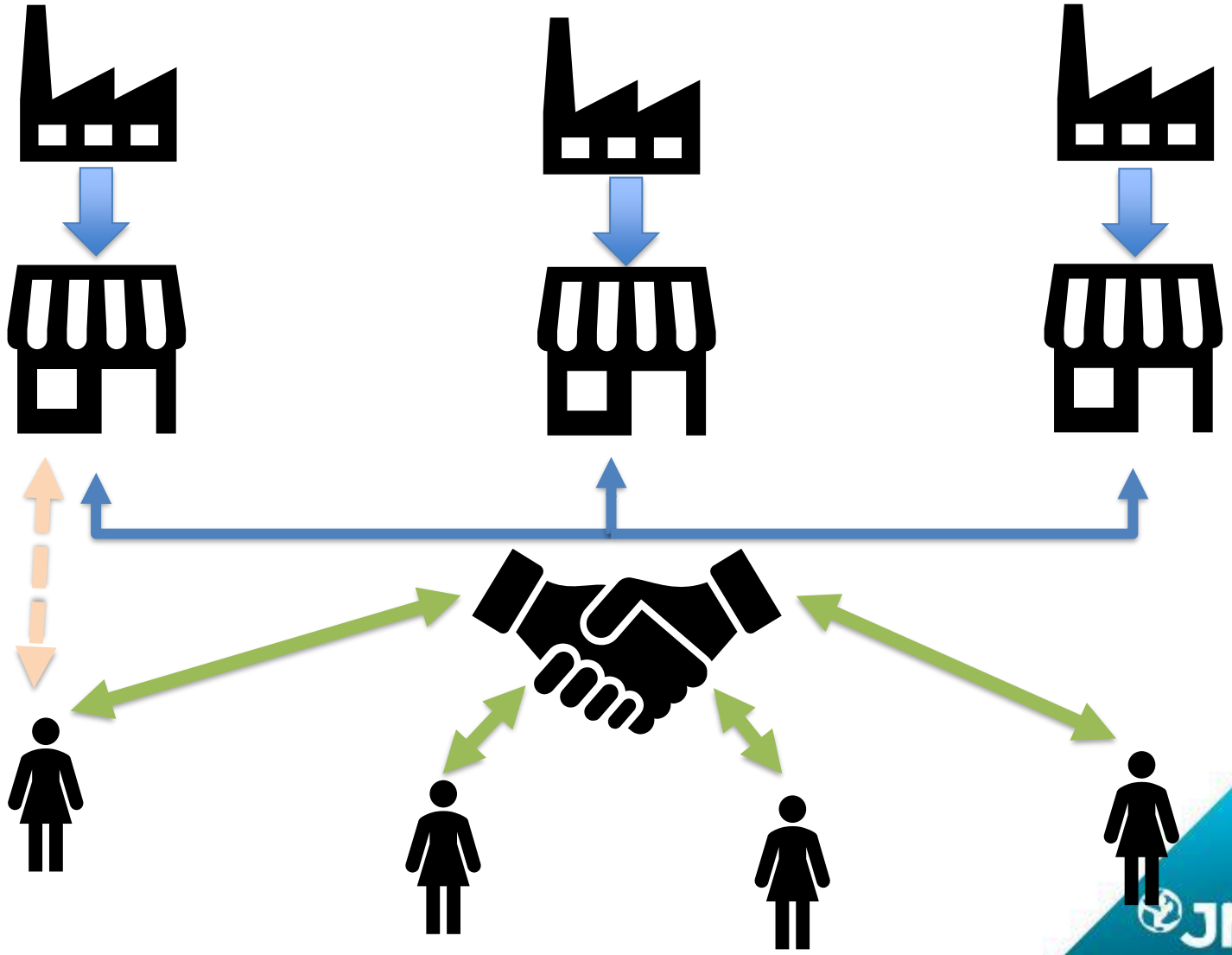


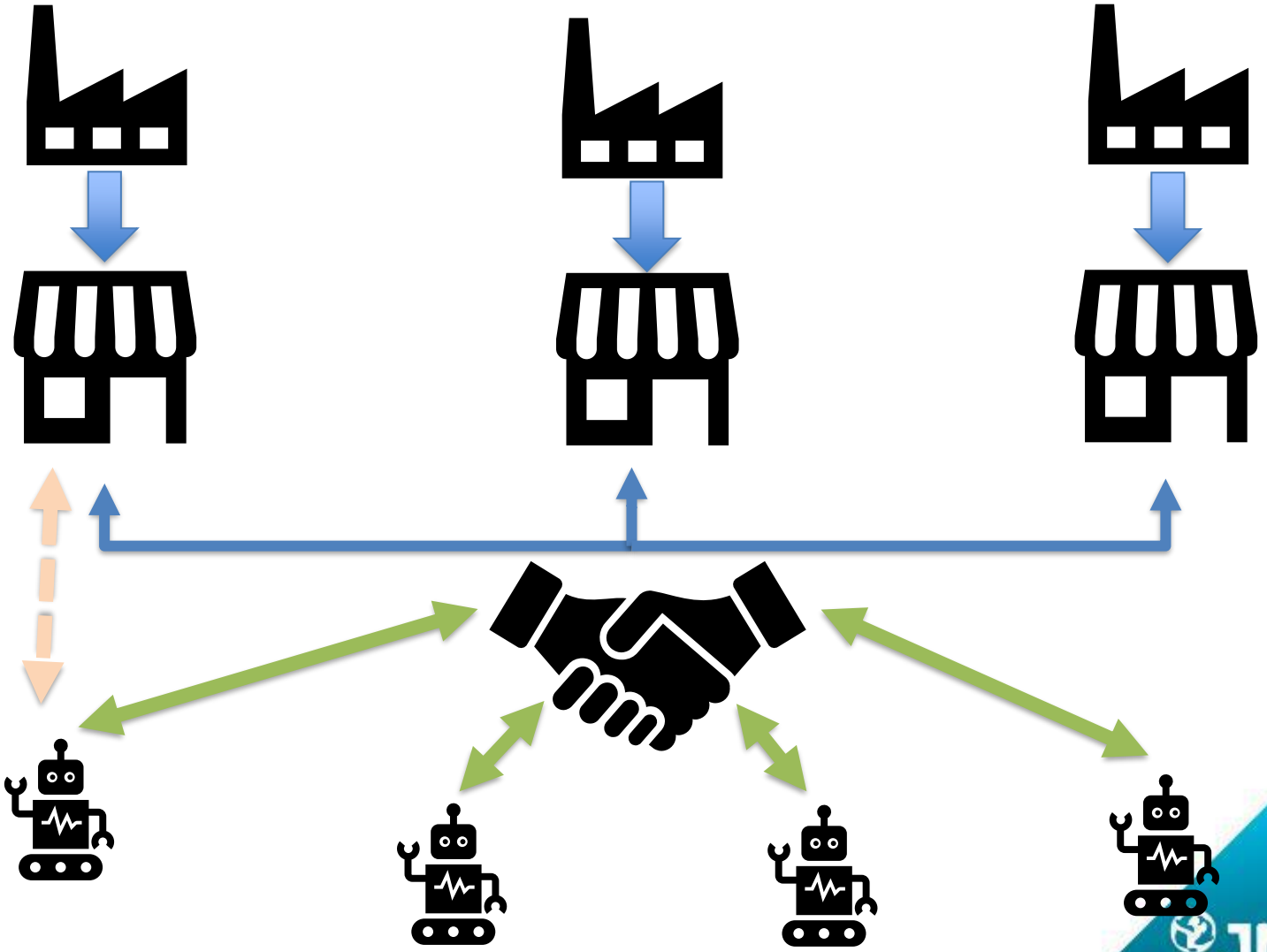
Image catalogues vs reference catalogues



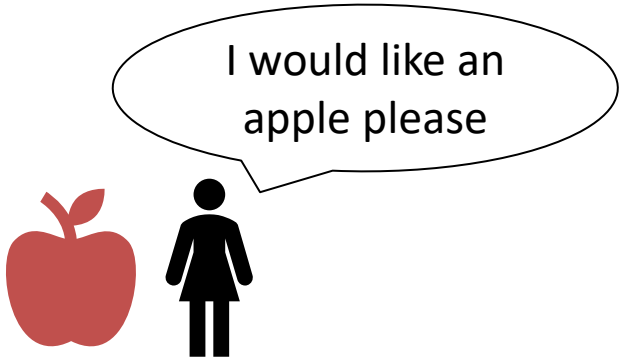
Machine-accessible infrastructures

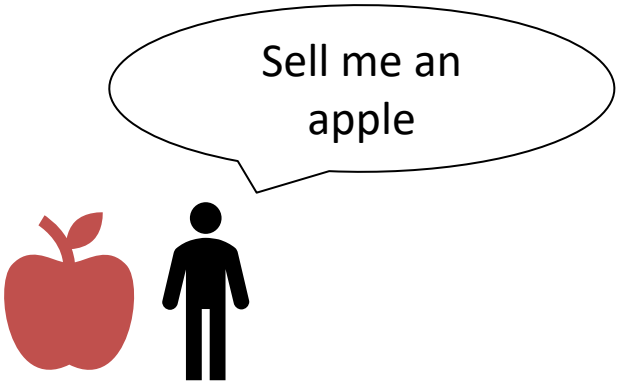


Machine-accessible infrastructures



Machine-accessible infrastructures





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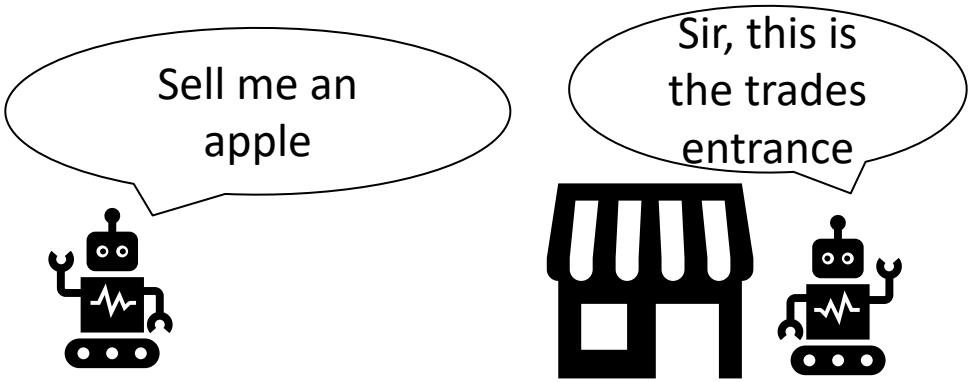
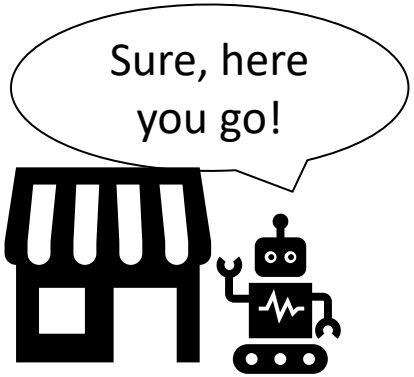
Machine-accessible infrastructures

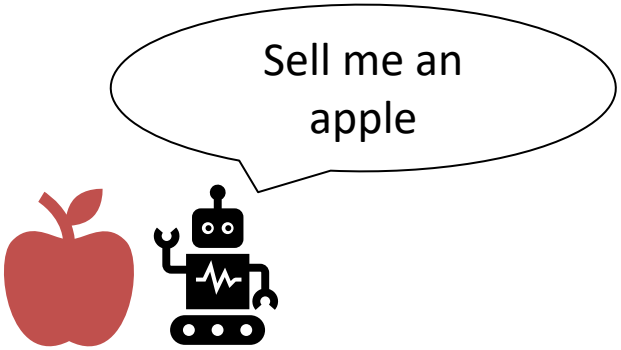
Computers can be incredibly good at specific tasks…

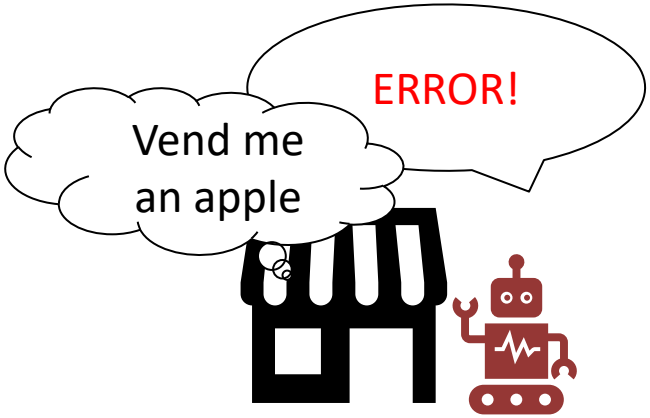
….But they're also very naive

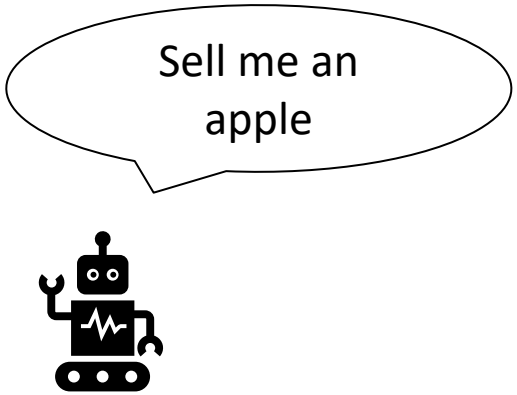


Machine-accessible infrastructures

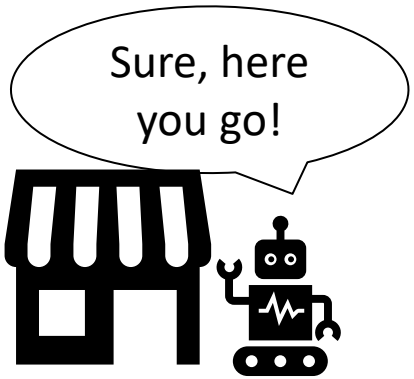


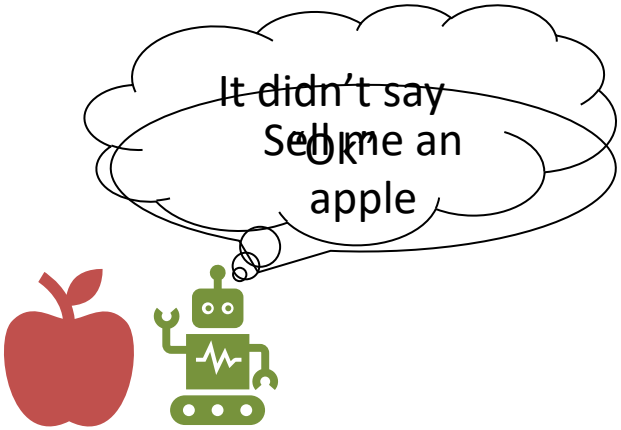


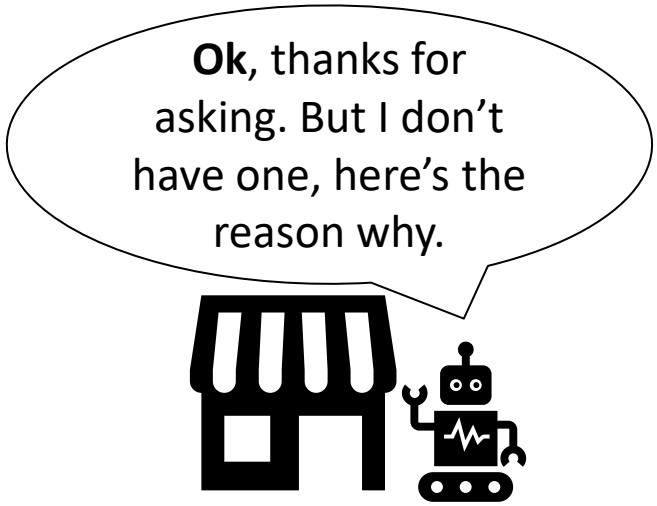


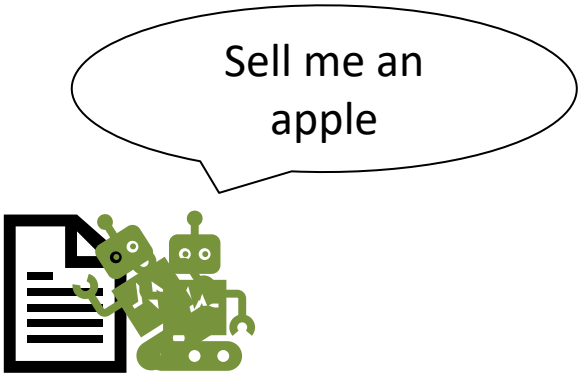


Machine-accessible infrastructures









Machine-accessible infrastructures

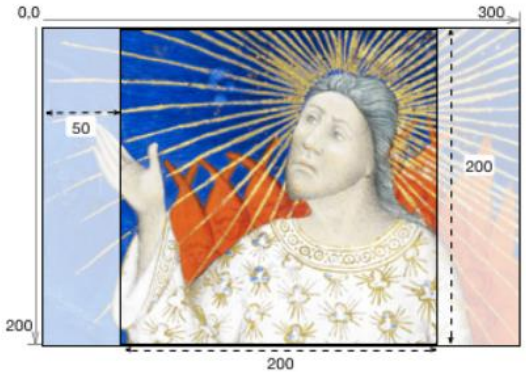
- The solution needs to hold the computer's hand as much as possible to guide it to asking for the correct information, and understanding the information it gets
- Interoperability
  - "Knowing how to interact"
- Standards
  - "Knowing what you'll get"

Interoperability

International Image

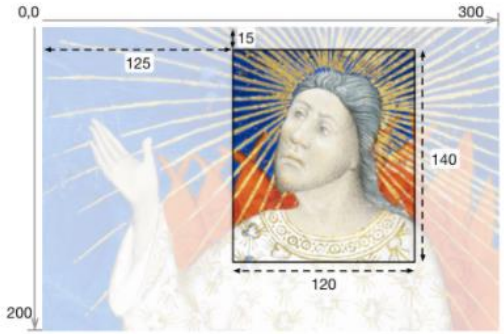
1 region=full

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



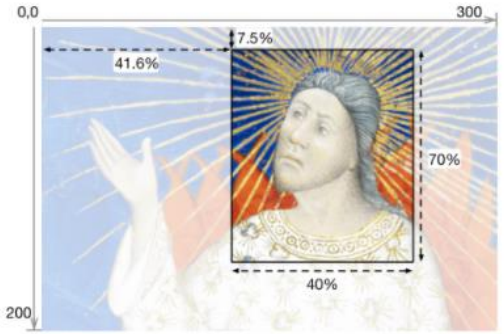
2 region=square

hhttps://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



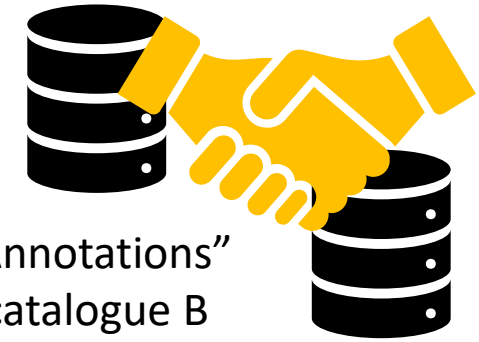
4 region=pct:41.6,7.5,40,70

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 A

Reference catalogue B



“Annotations” catalogue B

“Annotations” catalogue A

So (how) does it all connect?

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

MEDIN
marine environmental data & information network

- 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

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