Linked Open Data
&
3D Models on the Web

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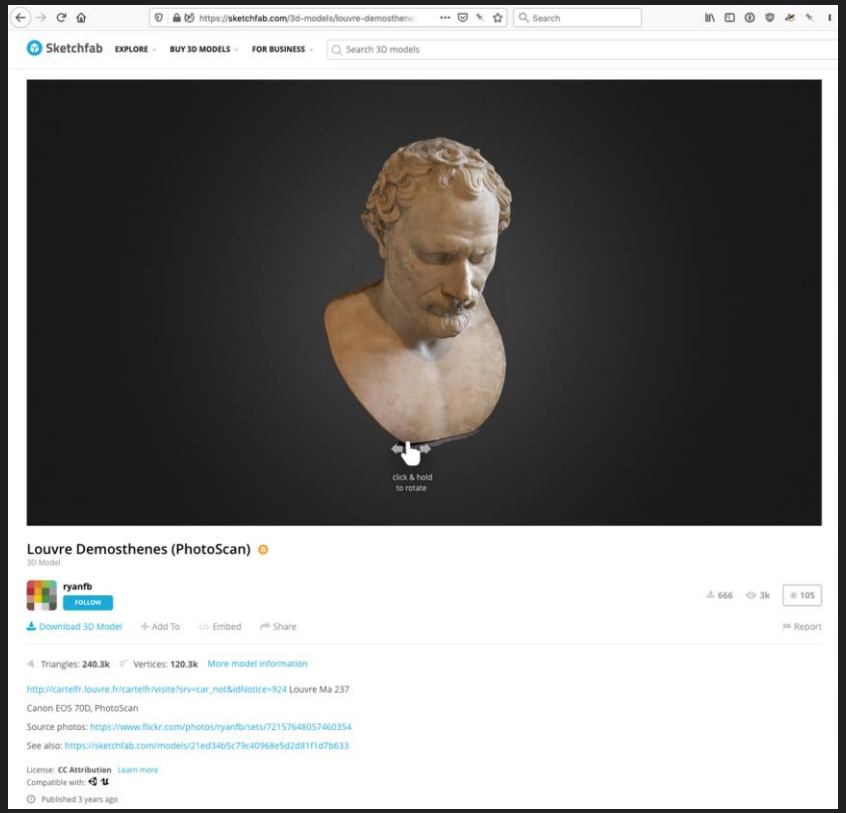
Slides: https://tinyurl.com/lod3d

3D Models on the Web Today:



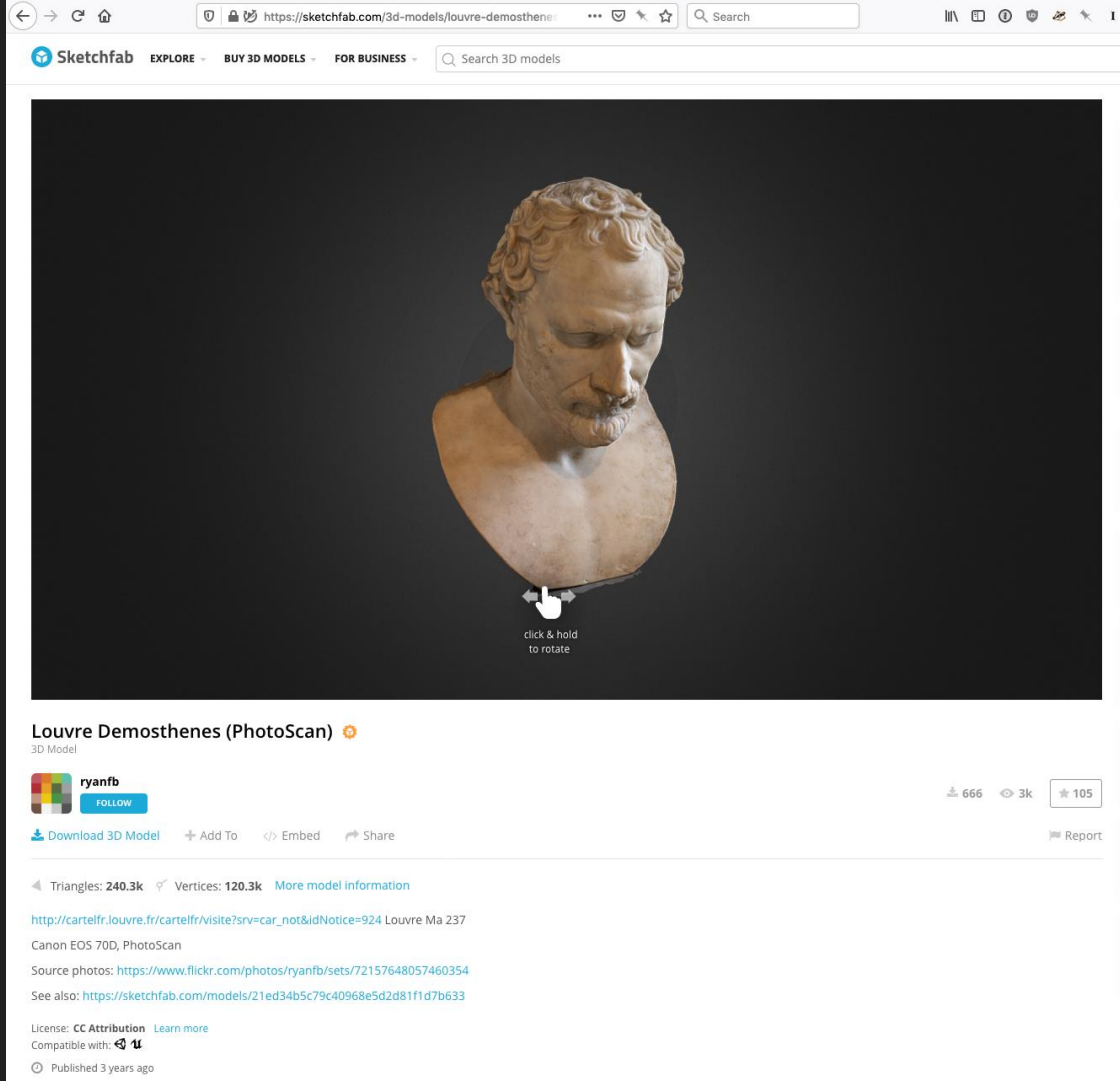
5-Star Linked Open Data:

1. Available on the web (whatever format) but with an open licence, to be Open Data
2. Available as machine-readable structured data (e.g. excel instead of image scan of a table)
3. as (2) plus non-proprietary format (e.g. CSV instead of excel)
4. All the above plus, Use open standards from W3C (RDF and SPARQL) to identify things, so that people can point at your stuff
5. All the above, plus: Link your data to other people's data to provide context

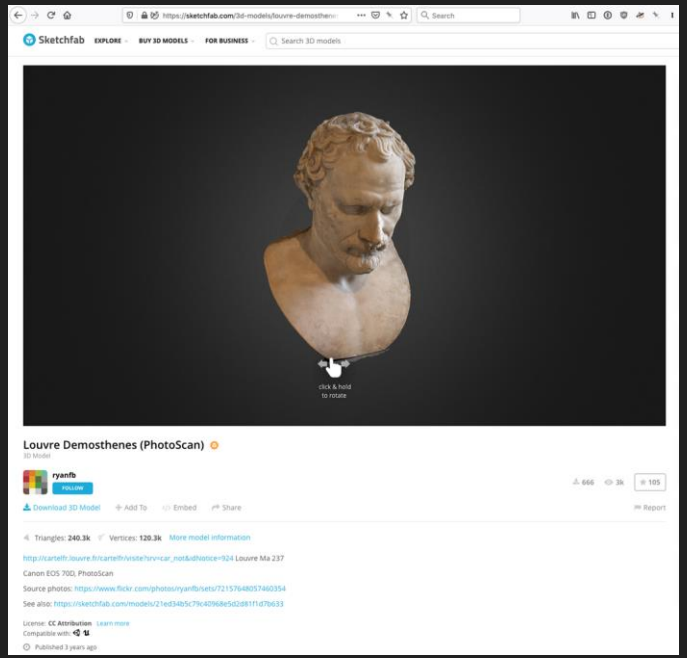
https://www.w3.org/DesignIssues/LinkedData.html

5 Stars:

- ✔ On the web with an open licence
- ✔ Machine readable data
- ✔ Non-proprietary format
- ✗ RDF
- ✗ Linking to other people's data



Imaging Data vs. Processed Data



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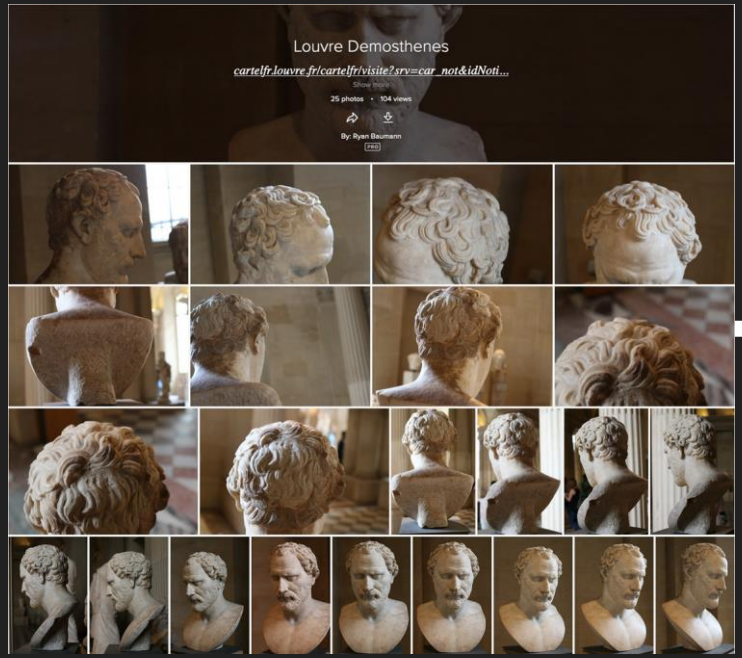
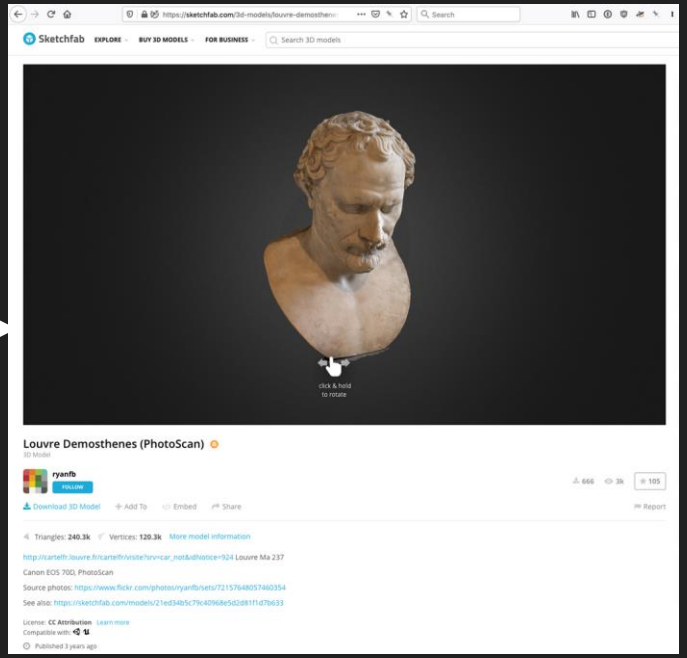
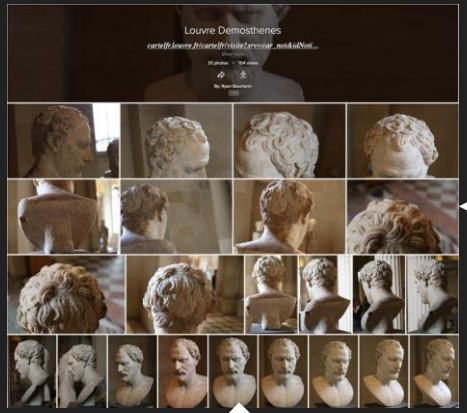
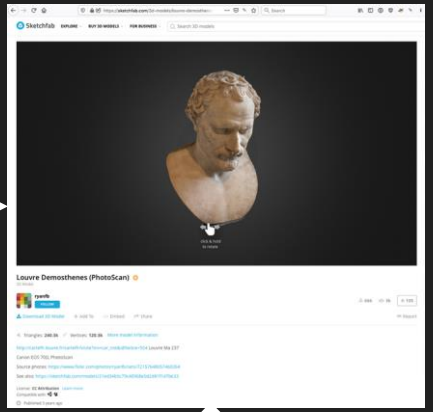
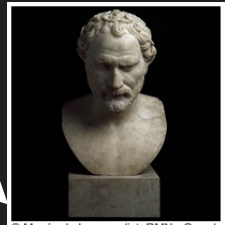




Linking to Other People's Data







© Musée du Louvre, dist. RMN - Grand Palais / Daniel Lebée et Carine Deambrosis

Sully
Rez-de-chaussée
Dieux et Héros du Monde grec antique : Apollon, Artémis, Dionysos
Salle 348

D'après Polyeuctos (actif à Athènes vers 280 avant J.-C.)

Portrait de Démosthène, homme politique athénien (384-322 avant J.-C.)

2e siècle après J.-C. ?, d'après un original grec en bronze vers 280 avant J.-C.

Italie
Marbre
H. : 44 cm.

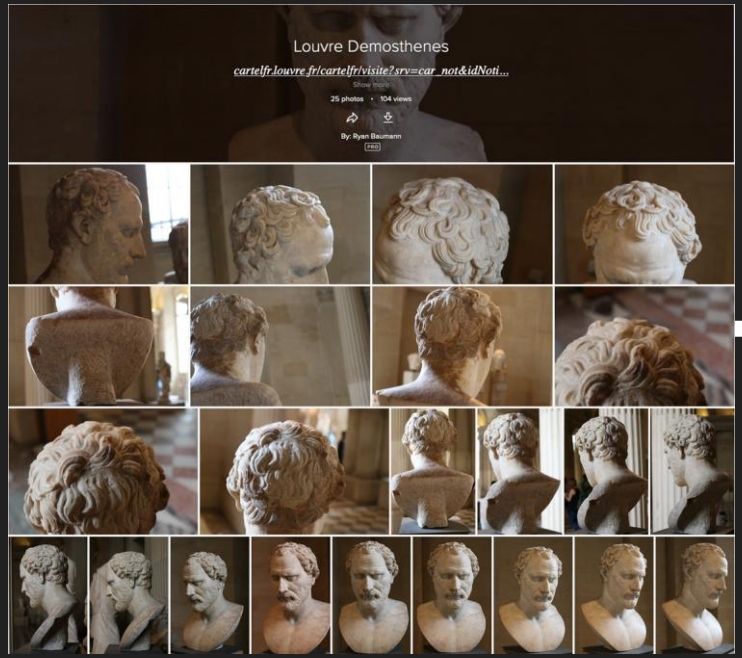
Achat, 1815, ancienne collection Albani.
Département des Antiquités grecques, étrusques et romaines

Inventaire MR 458 (n° usuel Ma 237)

Getting from Islands of Data to 5-Star Linked Open Data

- Publish imaging data on the web! (covers 1 through 3)
- Link your data together!
- Use RDF & stable URLs so that people can link to your data!
- Link to other people’s data!

Imaging Data vs. Processed Data



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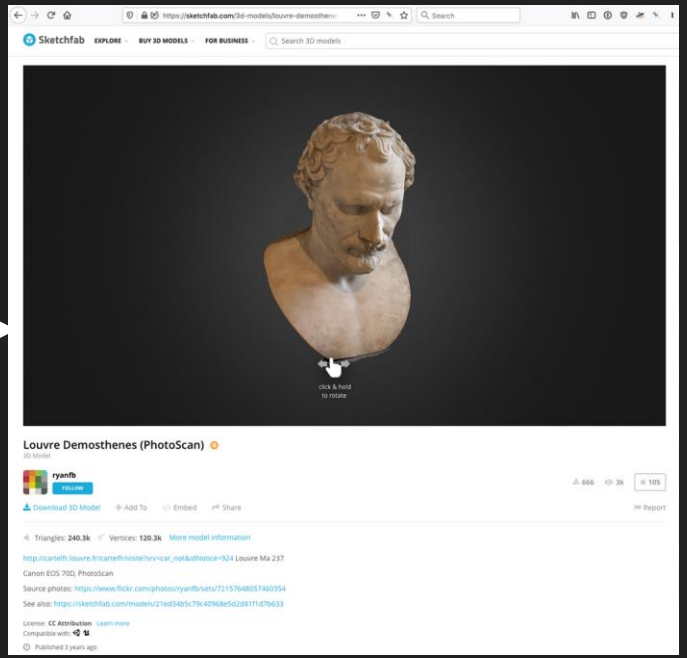
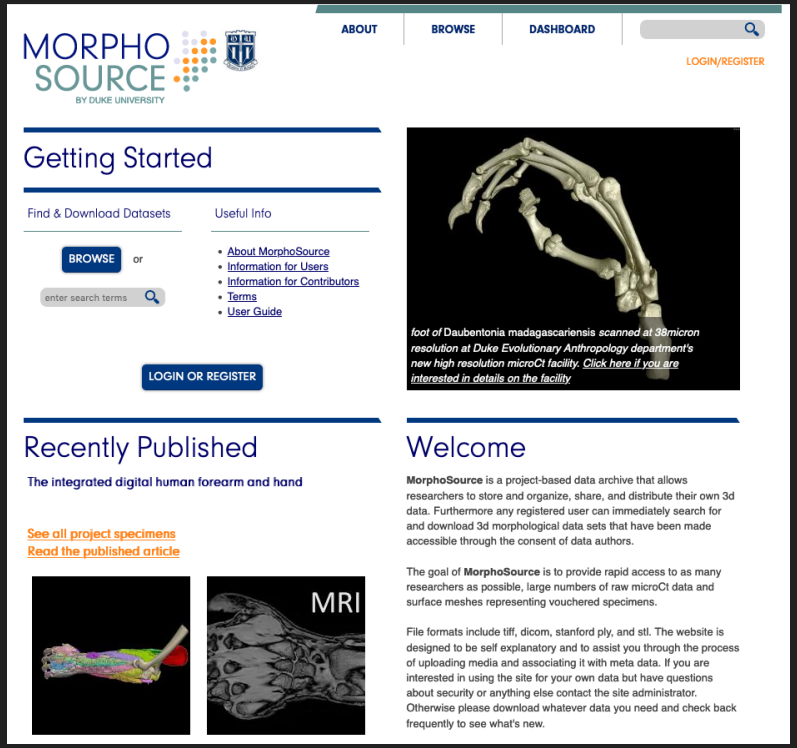
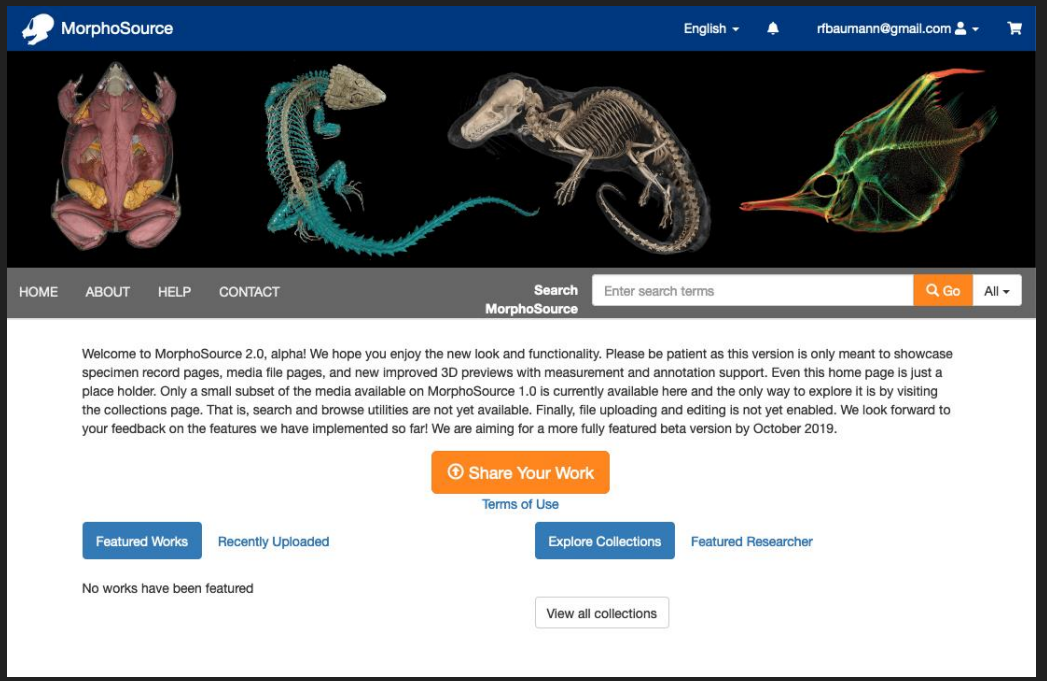


MorphoSource

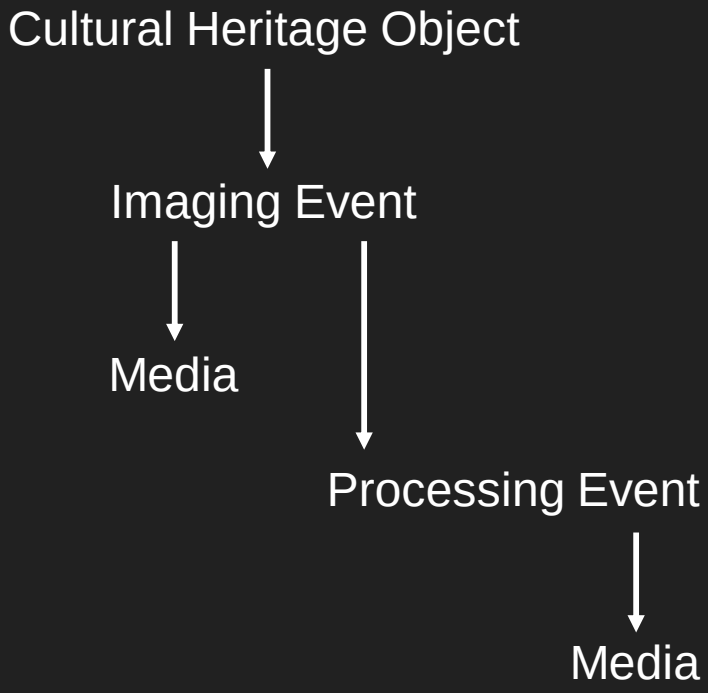


1.0



2.0 (beta)

MorphoSource 2.0 Data Model



RDF Ontologies for 3D Data on the Web

- MorphoSource 2.0 uses a DuraSpace Fedora repository for the backend
- Every metadata property has to have an RDF URI predicate
- We've minted our own URIs where necessary, but reused as much as possible
- Imaging Event metadata handles photogrammetry, 3D laser, X-Ray, MRI
- Happy to share and collaborate on defining RDF ontologies to use in this space, to make the process easier and more universal

Takeaways

- Put your imaging data online
- Put your imaging data online!!!
- …under an open licence
- …and link it to/from your processed data
- …and link it to other people’s data
- …using RDF

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