

Creating and Using Image Graphs: Recent Research in AI Augmented Construction and Using Images for Inference



imagesnippets™

Margaret Warren

<https://imagesnippets.com>

<https://dbpediahackathon.metadata.rocks>

Twitter: @Imagesnippets

Email: info@metadata.rocks



Fire in a fireplace

Loom on a table

Fire in a wood stove

Fireplace and a loom

Fireplace mantel



Scene Graphs
Named Graphs
Image Graphs

Imagesnippets weaves annotations

images

linked-data



This image

https://live.staticflickr.com/34/73339721_4c6d263e3d.jpg

depicts

dbpedia:loom

shows

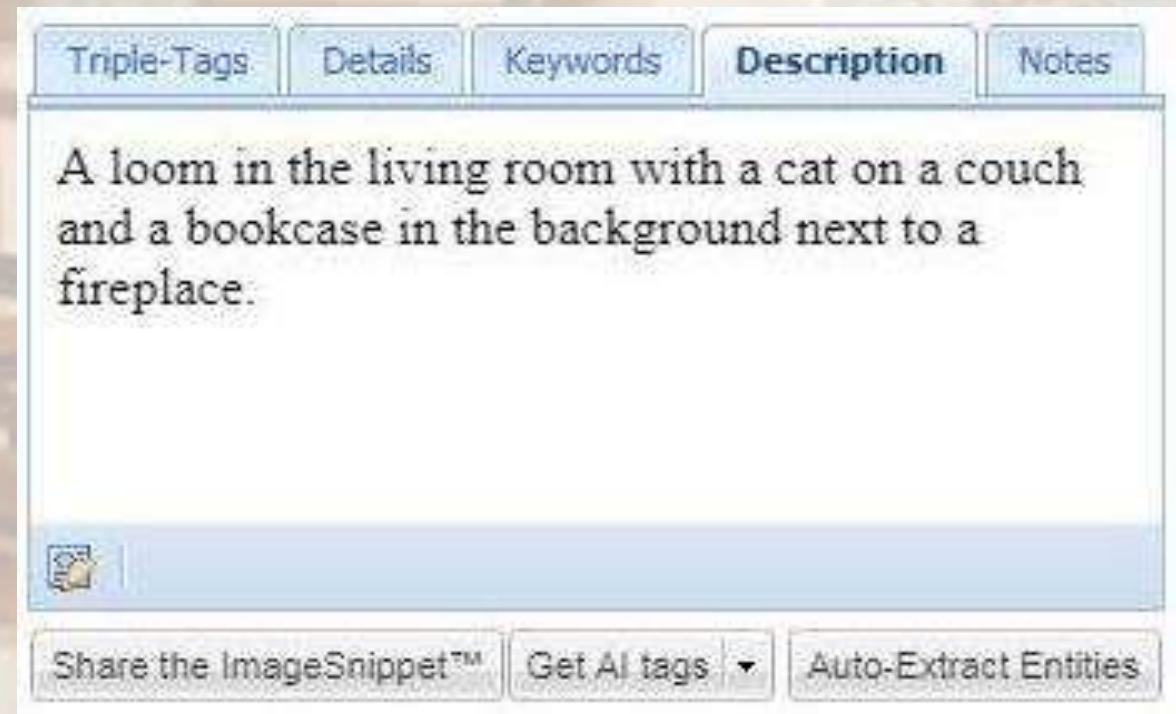
dbpedia:Fireplace_mantel

<https://imagesnippets.com/ArtSpeak/help/properties.html>

Humans-in-the-loop making sense of the ambiguity.

Ways to create linked-data annotations

- Build triples by hand
- Use Auto-Entity extraction
- Use AI classifiers
- Use AI object recognition



Machines can actively learn from the triple-stored annotations

Using Images to Navigate Knowledge Graph Reasoning



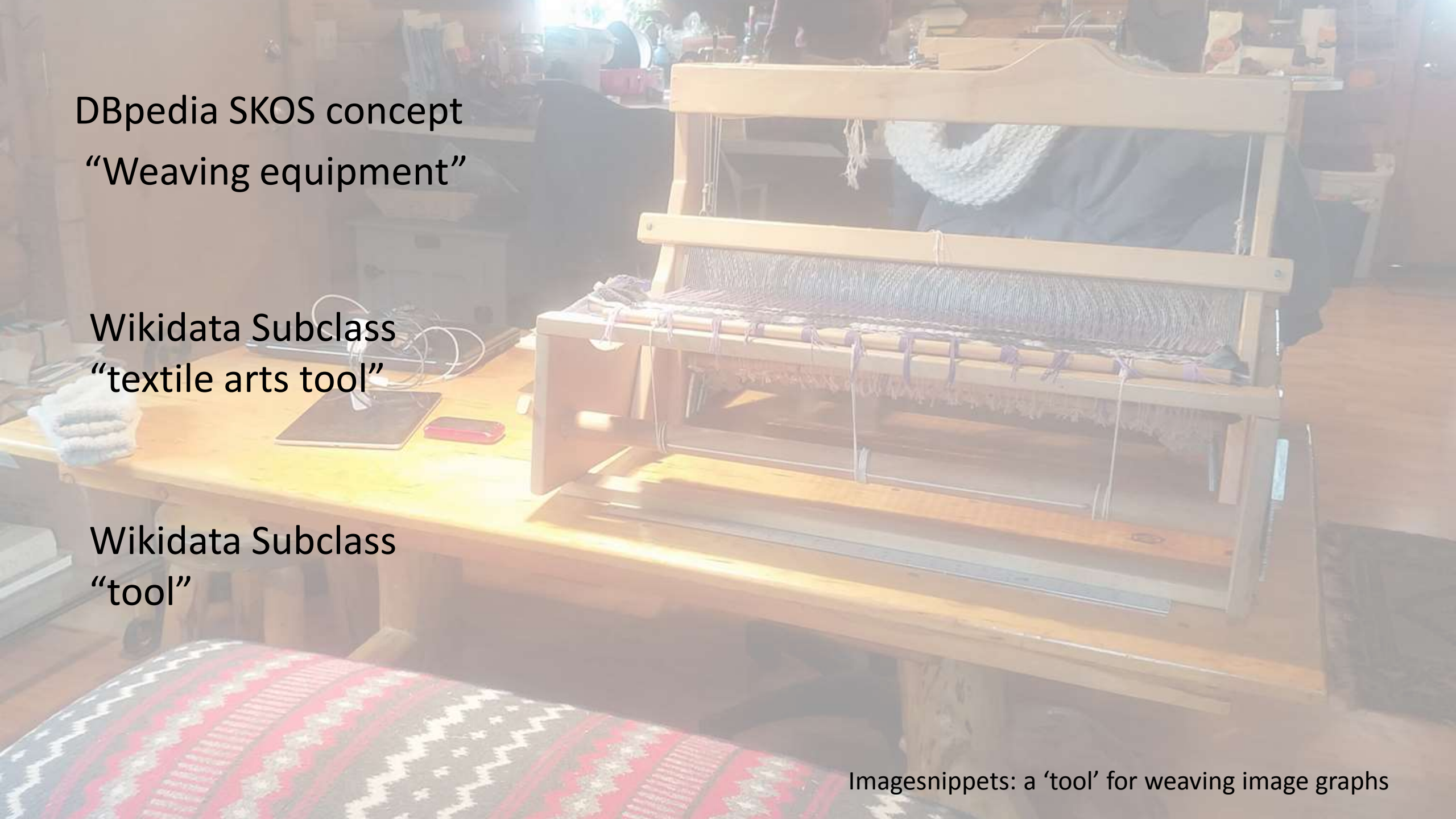
Architectural
Element

http://dbpedia.org/resource/Fireplace_mantel
Wikidata: fireplace mantel
<http://www.wikidata.org/entity/Q4327778>
subclass of architectural element
<http://www.wikidata.org/entity/Q391414>

DBpedia SKOS concept
“Weaving equipment”

Wikidata Subclass
“textile arts tool”

Wikidata Subclass
“tool”



Imagesnippets: a ‘tool’ for weaving image graphs

Thank you!

This presentation:

<https://creativecommons.org/licenses/by-nc/4.0/>



imagesnippets™

Margaret Warren

<https://imagesnippets.com>

<https://dbpediahackathon.metadata.rocks>

Twitter: @Imagesnippets

Email: info@metadata.rocks