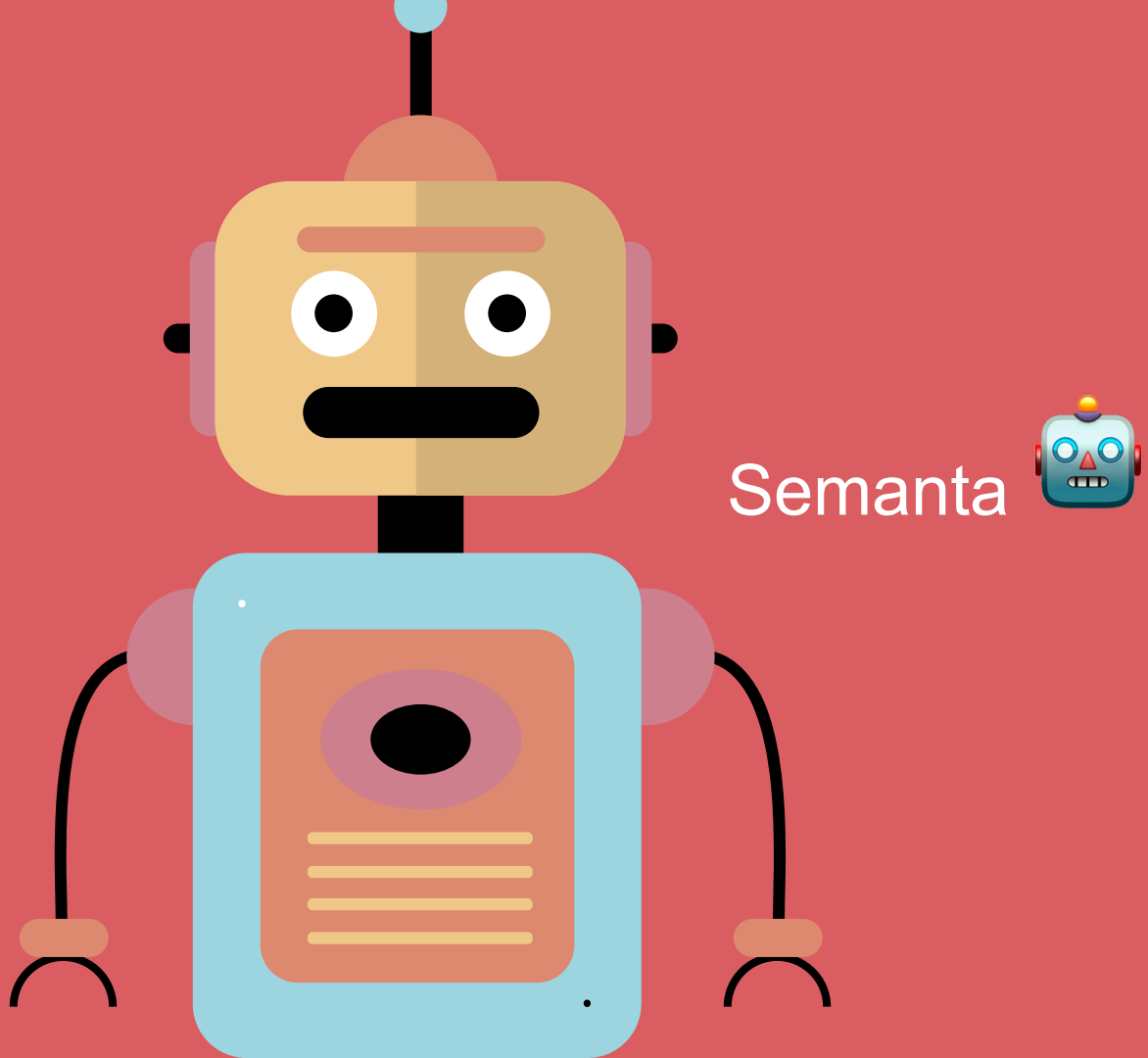
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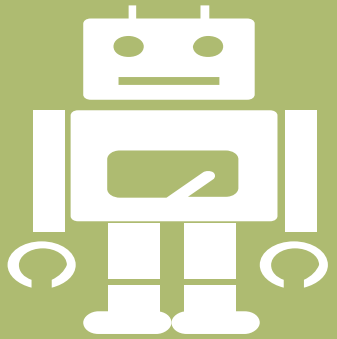
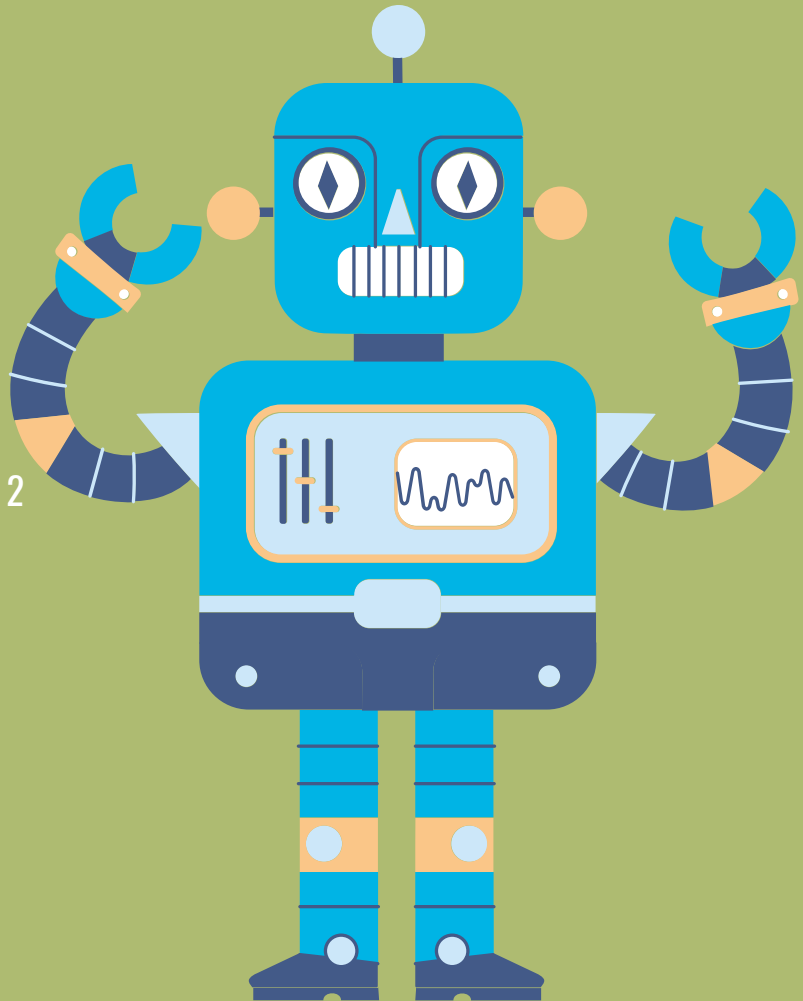


1. Team Names

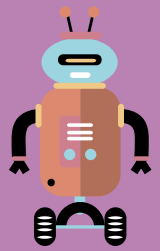
Lydia Fletcher, Will Mobley, Akila Sampath, Tabish Khan

2. Team Goals

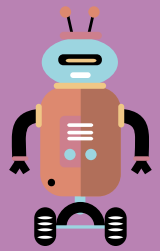
- How does AI-driven semantic searching work?
- How do you train machine learning tools to fetch metadata relevant to different modeling scenarios?



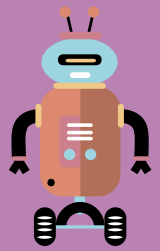
Problem Description: GIS Metadata for Semantic Searching



When collecting GIS data, models, etc. what metadata do you need to capture to enable semantic searching?

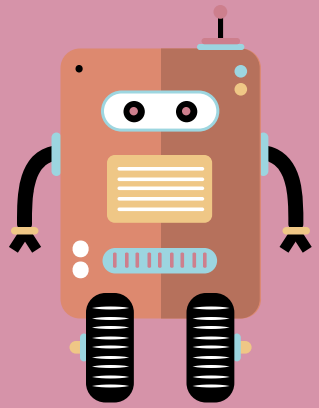


The Texas Disaster Information System aims to collect data of various types along with models for major weather-related hazards (floods, fires, snowpocalypses, etc.) and enable users at many levels to find and access those tools.

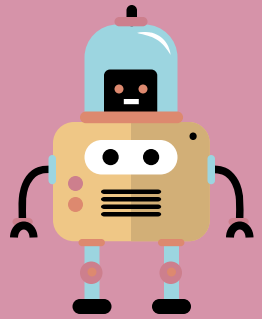


Using an ontological framework, we are working on mapping metadata fields to facilitate model integration

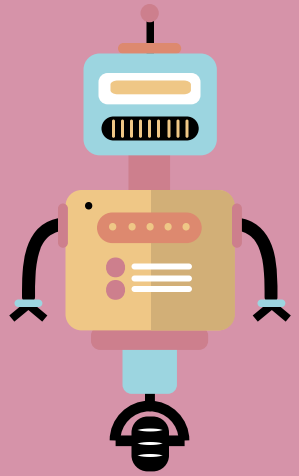
Metadata Levels:



Level 1 - Descriptive metadata enables discovery, identification, and selection of resources. It can include elements such as title, author, and subjects.



Level 2 - Metadata facilitates mapping metadata across different agencies' datasets.



Level 3 - Metadata is operational, programmatic, interactive, process-based. Facilitates automation, tied to discrete models. E.g. machine learning framework (tensorflow, pytorch, etc.) and framework version.