

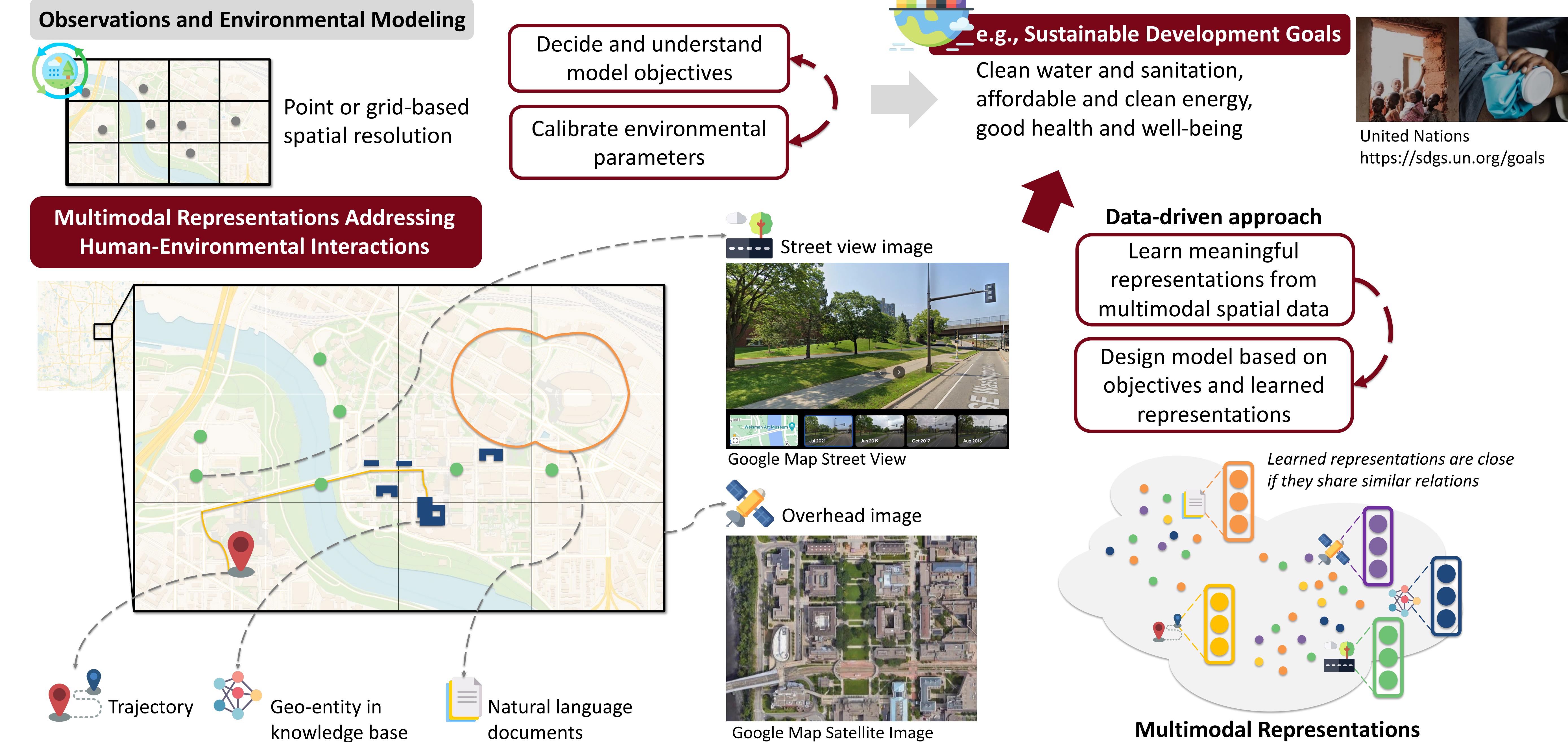
Generating Meaningful Representations from Multimodal Spatial Data Describing Human-Environmental Interactions

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Introduction

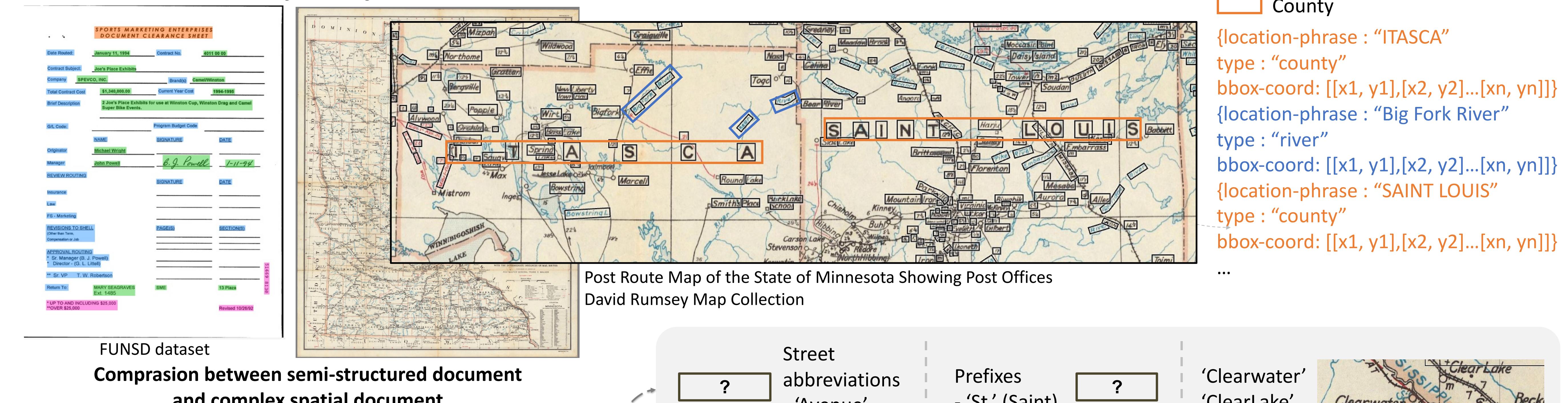


Challenge #1. Diverse spatial resolution coverage and data format

Challenge #2. Incorporation of multiple relations

One Line of Work on Capturing Multiple Relations

Understanding Complex Spatial Document



Definition of Multiple Relations on Text Labels

- Text relations - **semantic meaning and word order** within the location phrase
- Semantic type relations - relationship between **semantic types** of multiple location phrases
- Visual relations - **visual font style** (e.g., height, font family) of the location phrase
- Spatial relations - **relative positions and orientation** of words within the location phrase

