

## Problem Space

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### Nature of Geo-Collaboration

- spatially distributed
- interaction with geographical space

### Needs for coordination

- distributed
- inter-dependent

### Challenges in coordination

- high complexity
- high contingency
- spatially dependent

Overall objective

Motivate

## This Research

### Overall framework

- dependency based
- coordination by awareness
- event driven

### Q1: Spatial dependencies

- types
- implications
- lifecycle

### Q2: Event notification

- strategies
- comparison

### Q3: Event interpretation

- cognitive process
- visual aids

### Design & Development

- dependency model
- event notification
- visualization

## Knowledge Space

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### Theories

- coordination and dependencies
- awareness
- spatial behavior

### Models

- activity models
- dependency models
- spatial models

### Methods

- awareness mechanisms
- event processing
- geo-visualization techniques

### Methodologies

- knowledge acquisition
- scenario-based design
- design evaluation methods

Existing knowledge

Ground

New knowledge

Contribute

Application

Contribute

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### Applicable scenarios

- emergency response
- transportation management
- others?

### Theories and models

- spatial dependencies

### Methods

- dependency-based event notification
- visual support for event interpretation