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AI-based Visualization Method for Project Management

Stanford researchers have designed an AI-based visualization method which can assist project teams to quickly, consistently, and effectively manage change events on any project. Current visualization tools do not have the capacity to analyze the impact of change orders on all three fronts: temporal, spatial, and resources.

The proposed method leverages the integrated approach towards schedule, workspace, and resources using advanced natural language processing (NLP) and machine learning to label and characterize change events data. These advanced AI-driven computational techniques can help project teams to visualize, review, and plan for changes within a fraction of time as compared to traditional methods.

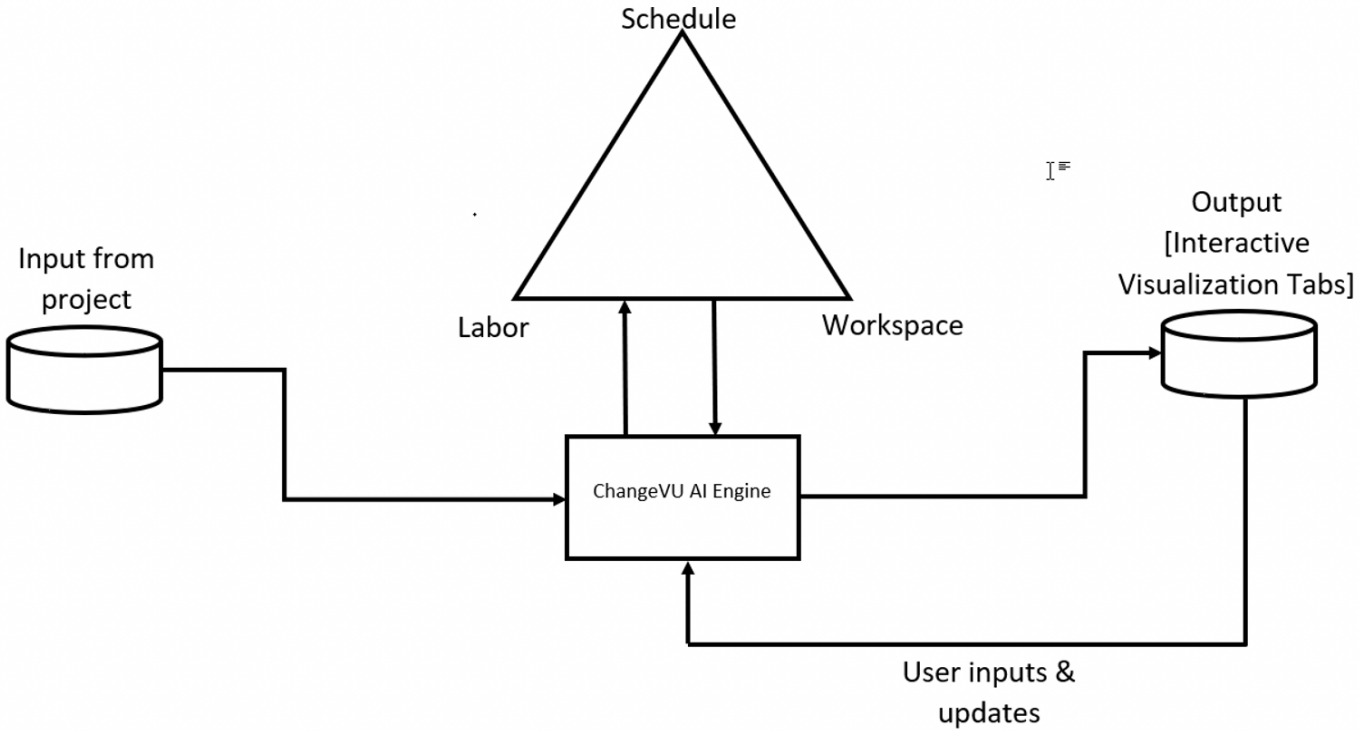

Figure description - Schematic of proposed method AI-based labeling and visualization platform

Applications

- **AI-based visual change management review and construction planning**
- Project data analysis and management – evaluate change orders, resolve claims, disputes, and conflicts
- Targeted contingency planning
- Cross-project learning

Advantages

- **Integrates and visualizes** change orders on three fronts: temporal, spatial, and resources
- **Efficient and automated** – can handle more change events in a shorter amount of time for faster decision making

- **Computational Advanced** – applies NPL and AI
- **Centralized data management and analysis** - data collection protocol with specific user labels to identify the key characteristics of a change event using advanced NLP and machine learning techniques
- **Allows real-time classification** of change events based on interactive user input

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