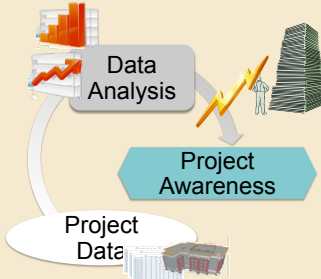


Visualizing and Interacting with Construction Project Performance Information

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Problem Statement



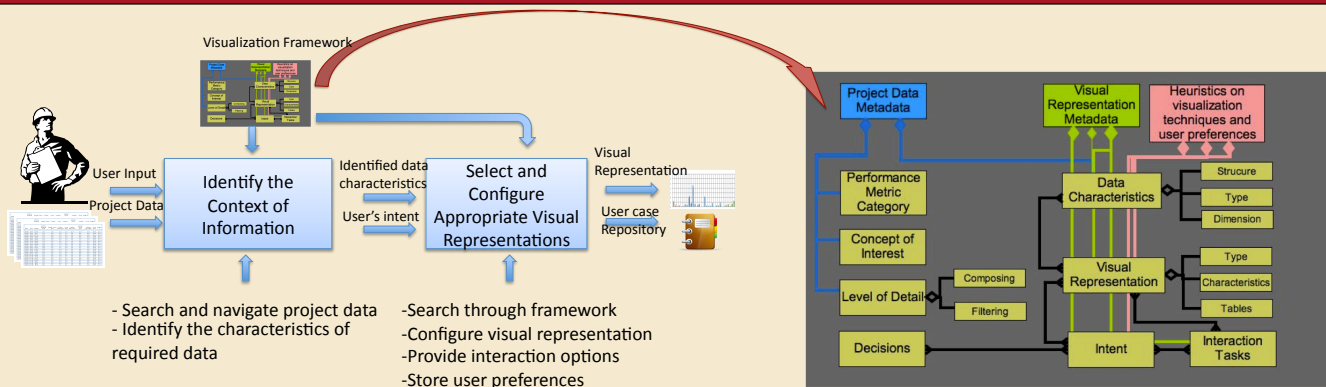
- To gain awareness of projects, project members need unique information. When not provided, information overload is probable, causing waste of time and money.
- Based in an initial study, we identified that 60% of project members' information visualizations needs are not met.
- Information visualization related studies are not synthesized and formally represented to select effective visualizations based on data types and context

Research Objectives

To support project members in generating effective visualization of unique project performance information needs.

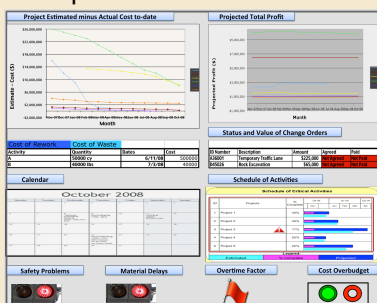
- Identify patterns of similarities and differences in information visualization requirements for performance monitoring.
- Identify the fundamental components of a project performance visualization framework.
- Formalize the visualization of project performance information based on the derived framework.

Vision



Initial Results

- Performed contextual Inquiry with 14 project members
- Generated performance visualization dashboards
- Identified 132 performance visualization needs



Related Publications

Atasoy, G., Akinci, B., Basta, K. (2009) "Unique Dashboard Needs of Construction Project Team Members", Fifth International Conference on Construction in the 21st Century (CITC-V) "Collaboration and Integration in Engineering, Management and Technology" May 20-22, 2009, Istanbul, Turkey

Atasoy, G. and Akinci, B. (2010) "Evaluation of Toolkits for Visualizing Information about Performance of Earthwork Activities on a Construction Job Site", International Conference on Computing in Civil and Building Engineering (ICCCBE), June 30-July 2, Nottingham, UK

Akinci, B., and Atasoy, G. (2010) "Requirements Analysis for a Construction Project Performance Visualization Environment", National Science Foundation CMMI Grantee Conference, Jan 4-7, 2011, Atlanta, GA, USA