Hello!

Conceptualizing Software Development Project Risk

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Definitions

Project

- A “temporary endeavor undertaken to create a unique product, service or result” (PMI).

Risk Factor

- A category of possible risk for a project (e.g., “Loss of critical staff”)

Risk

- A specific instances of a risk factor (e.g., “Our PM may retire during the project”)

Problem

- An event that is present and adversely affecting the project (e.g. , “Our PM gave notice”)

Sample References for the Domain

1991 Boehm, B. W. ***Software Risk Management: Principles and Practices.***

1993 Barki, H., Rivard, S., & Talbot, J. ***Toward an Assessment of Software Development.***

1994 Jones, C. ***Assessment and Control of Software Risks.***

1998 Keil, M., Cule, P. E., Lyytinen, K., & Schmidt, R. C. ***A Framework for Identifying Software Project Risks.***

2000 Sumner, M. ***Risk factors in enterprise-wide/ERP projects.***

2001 Barki, H., Rivard, S., & Talbot, J. ***An Integrative Contingency Model of Software Project Risk Management.***

2001 Schmidt, R., Lyytinen, K., Keil, M., & Cule, P. ***Identifying Software Project Risks: An International Delphi Study.***

2004 Taylor, H. ***Risk Factors in Vendor-Driven IT Projects.***

2004 Wallace, L., & Keil, M. ***Software Project Risks and Their Effect on Outcomes.***

2004 Wallace, L., Keil, M., & Rai, A. ***Understanding Software Project Risk: A Cluster Analysis.***

2014 Schmalz, M., Finn, A., & Taylor, H. ***Risk Management in Video Game Development Projects.***

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Industry Segment, Type of Software, Methodology, Phase, Magnitude of Impact, Nation of Origin, Stakeholder Constituency, and more.

The Research Question

“In what ways can our existing schemas for analyzing and classifying software project risk be re-organized to provide better guidance for researchers and professionals seeking ways to improve project success rates?”

Sample References for the Analytical Framework

2013 Nickerson, R. C., Varshney, U., & Muntermann, J. ***A Method for Taxonomy Development and Its Application in Information Systems.***

2019 Szopinski, D., Schoormann, T., & Kundisch, D. ***Because Your Taxonomy Is Worth It: Towards a Framework for Taxonomy Evaluation.***

2022 Kundisch, D., Muntermann, J., Oberländer, A. M., Rau, D., Röglinger, M., Schoormann, T., & Szopinski, D. ***An Update for Taxonomy Designers: Methodological Guidance from Information Systems Research.***

2022 Schmalz, M., Snyder, K., Morris, L., Cherrington, C., Disher, T., & Lee, J. H. ***Evaluating a Taxonomy for Video Game Development Artifacts: Archival Taxonomies in Highly Innovative Domains.***

Steps in the Analytical Framework

- Identification of the objects to be classified
- Identification of the audience for the taxonomy
- Identification of a meta-characteristic intended for capture
- Two iterative approaches
  - Empirical-to-conceptual
  - Conceptual-to-empirical
- Evaluative Criteria
  - Comprehensive
    - Coverage
    - Dimensionality
  - Concise
  - Robust
  - Explanatory

Thanks!

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