Temasek Defence Systems Institute

Developing Measures of Effectiveness for Assessing and Predicting Technology Integration

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NAVFAC estimates as much as **90%** of developed technologies were **not** eventually integrated.

How may we measure whether a technology has been successfully integrated into a client organization?	What are the identifiable characteristics of a technology system that signals its successful integration?	Which technology characteristics correlate with the MOEs, and how can they be used to predict the successful integration of future technologies?

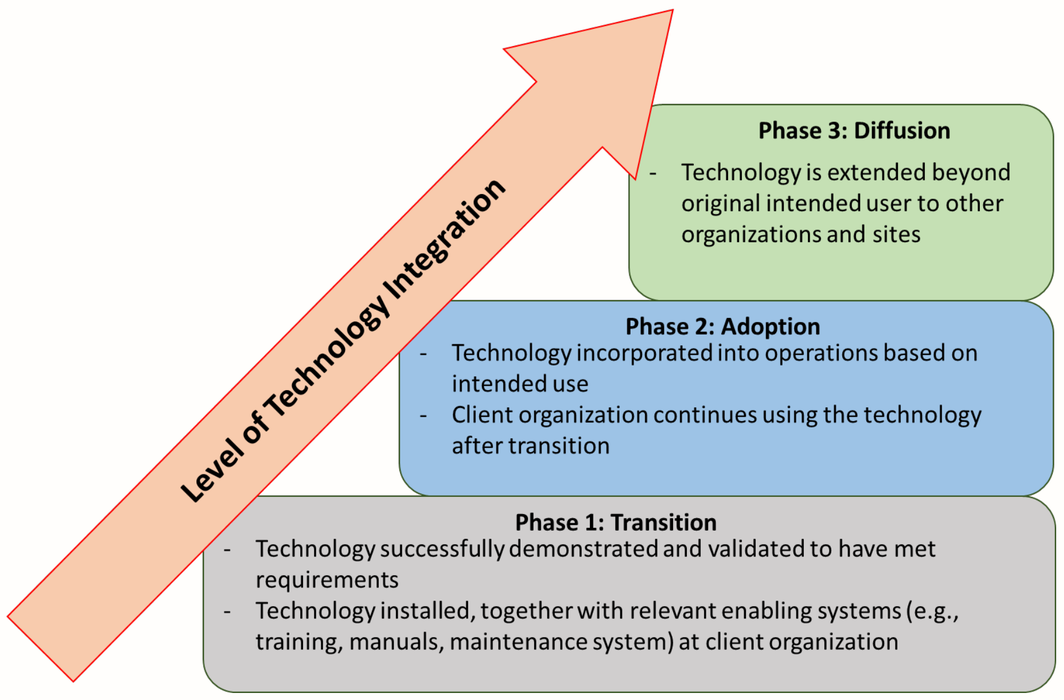
Systems engineering approach and case study analysis

Objectives

- Develop a set of MOE that can be used to assess the level of integration for a developed technology
- Develop a predictive model that can be used to predict the likelihood of integration for future technologies

Key Results

- Established definition of technology integration
- Developed quantifiable MOEs to determine level of technology adoption and diffusion
- Demonstrate how technology integration can be predicted using correlation and graphical approaches



Benefits & Potential Benefits

- Consistent measures to determine success level of technology integration
- Assist decision-making by predicting likelihood of integration for future projects
- Extend for use beyond NESDI

Future Work

- Refinement of predictive models through more data points (i.e., case studies)
- NESDI has expressed interest and committed to involve NAVAIR, NAVSEA, SPAWAR projects as case studies

Reference: Lin, Xinhong. 2018. “Developing Measures of Effectiveness for Assessing and Predicting Technology Integration.” Naval Postgraduate School, Monterey, CA.

NUS National University of Singapore