Alert Fatigue and Personality

TREO Talk Paper

Thant Syn
Texas A&M International University
thant.syn@tamiu.edu

Abstract

Alert fatigue is a well-known phenomenon in healthcare. It is one of the unintended consequences of the use of information systems (IS) in healthcare environment. Some healthcare information systems (HIS) like computerized provider order entry (CPOE) and clinical decision support (CDS) systems are especially susceptible due to their prevalence in practice (Phansalkar et al. 2013). Alert fatigue refers to the gradual desensitization of physicians, nurses, pharmacists, and other healthcare providers and professionals to alerts, warnings, and reminders generated by various HIS. It is also known as alarm fatigue, pop-up fatigue, and cry-wolf syndrome. It is a critical issue in the adoption and use of electronic health or medical records which has yet to be fully explored and understood by IS researchers.

The adoption and use of IS in general can be explained by technology acceptance model (TAM) and its variance models. Some studies have incorporated people’s psychological predispositions or individuals’ personality traits into TAM or similar models. Five personality constructs—openness, neuroticism, agreeableness, conscientiousness, and extraversion—which are defined in the five-factor model (FFM) are widely accepted in the personality research. Devaraj et al. (2008) found that except for openness, personality constructs either directly or indirectly affect users’ behavioral intention to use a system which in turn affects the actual use of the system.

We postulate that the phenomena related to the non-use or mis-use of IS, such as alert fatigue, can be explained by individuals’ personality. Although the adoption and use of IS have been extensively studied, the non-use and mis-use concepts are often swept aside as the by-product of the IS use. The chronic issue of drug safety alert overrides in the range of 49% to 96% (van der Sijs et al. 2006) indicates that the non-use of selective features of IS even when required by law may be more than a minor side effect. Understanding the psychological pathways that affect individuals’ non-use or mis-use of IS can help IS designers incorporate personalized alerts that could reduce the alert fatigue.

The proposed model will determine whether and which of the five personality constructs of FFM influence the desensitization to alerts which would lead to alert fatigue and the resulting behavior of overriding alerts. The desensitization sets in when users are repeated exposed to mundane routines such as mobile applications’ requests for permission to use location. It is considered the catalyst to alert fatigue. All five personality constructs are expected to influence the individual users’ susceptibility to the desensitization to alerts. The model will also integrate the task-based as well as system-based variables such as the visual cues of the importance of alerts which are shown to influence users’ perception.

References

