Coming to terms with Telemetry: A scoping review

Weiss M
Botha A
Herselman ME

ABSTRACT:

mHealth solutions, in resource constrained public healthcare settings, are often an extension of the reach of the government health system. As such, mHealth is subjected to demands resulting from not only restrictions due to constrained health service offerings, but technically constrained limitations inherent in the provisioning of said services as well. Telemetry may be able to offer a workable strategy in mitigating some of these technical constraints. Telemetry, in various guises, has been in use since 1912. The term is used in Information Systems to refer to a conceptual understanding of remote monitoring and control. The concept morphs from its initial concept of Supervisory, Control, and Data Acquisition (SCADA), to often become synonymous with more evolving trends such as machine-to-machine (M2M) and the Internet of Things (IoT). Where there is a clearer understanding of the domain differences between the latter two, Telemetry, in contrast, is poorly expanded on and is predominantly used to denote the features in and of a system. As such, the agreement of what constitutes the components of a telemetry system, or a telemetry framework, is implicitly referred to from within reports and case studies. It follows that the notion of a telemetry framework or, telemetry perspective, is inferred by its context, and changes as its conceptual application changes. This paper aims to articulate the components for a Telemetry implementation from literature, and to suggest design criteria

that could be considered for an mHealth telemetry implementation.