

To openEHR is Human-Dmitri Wall

OpenEHR promises an approach to information modeling that places domain experts in a position of influence, enabling the incorporation of their knowledge in health information systems in a flexible manner that can be adapted as medical knowledge changes, while promoting interoperability.

The technical aspects of openEHR and need to engage clinical modelers are well described. However, there has been less focus on the clinical perspective of learning to model. Limited evidence raises concerns regarding the ease with which busy clinicians can develop clinical modeling skills, and practical guidance relating to it is sparse.

This thesis describes a project, facilitated by an action research methodology, to enable a clinician to develop as a clinical modeler in the context of the creation of two real-world patient registries. The development of a number of artifacts by the author, used to develop these registries, is described, as is engagement with expert clinicians, the openEHR clinical modeling community and expert clinical modelers to validate the author's work.

Outputs include observations made by the author during the learning process, proposed amendments of artifact development methodologies, a Clinical Modeling Development Strategy and identification of resources of value to novice clinical modelers. Patient registries are identified as opportunities to engage clinical networks, facilitating the creation of highly interoperable openEHR artifacts, in turn enabling patient registries to meet best-practice guidance.

Medical information is complex and mercurial, making efforts to describe it with information systems challenging. The openEHR model, however, is detailed and flexible enough to meet these challenges. It also recognises that "to err is human", as is diversity of behaviour, and that both must be catered for. (O)penEHR meets these challenges through the community that has evolved around it, collaboratively working to identify as broad a range of perspectives on medical concepts as possible, while iteratively designing out error in the information models that can describe them. While learning to become a clinical modeler is challenging and error laden, the most significant finding of this thesis is that engagement with this human community enables clinical modelers at all competency levels to make valuable contributions, creating a sense that clinical modeling is achievable and rewarding. For all these reasons the author claims that "to openEHR is human".