Information Communication Technology for Social Development

Universal HL7 Interpolation For International Interoperability

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The Medical fraternity and the healthcare sector have long acknowledged the benefits of IT investment. The use of Electronic Health Records (EHRs) worldwide can levitate service levels, improve patient care and safety, and lower costs. The clamour for new, smart computer systems for healthcare is allied with a commensurate need for standardized, regulated global operation, facilitating the free but controlled exchange, storage, management, and access to valued healthcare information. Enhancing Semantic Interoperability is key, which is the meaningful interchange of healthcare information with homogenous understanding. But of tantamount importance is also the implemented standard’s ubiquitous appeal, facilitating International Interoperability.

Health Level Seven (HL7) is the predominant interoperability-related global healthcare standard in operation today. Introduced in 1987 by the HL7 International Inc., its current version 3 has a few issues. Besides being difficult to implement and maintain, true international interoperability the germinal thought behind HL7, is still an illusion. Member countries need to be able to exchange healthcare information expeditiously and efficiently. The EHR of any patient should be available to the treating medical practitioner irrespective of the geographical location of the patient or his migration habits. Current HL7 implementations are deficient in this respect, and as such the achievement of these goals underscore the thrust of this research.

This paper presents a pragmatic and practical approach to achieving true HL7-based International Interoperability. It discusses challenges to the global use of the standard, and examines deleterious adaptations which subvert exchange. Systematic expansion of HL7’s use is recommended, capitalizing on the abounding benefits afforded, and manifold cogent considerations in the present day’s context are discussed. Uniform, universal, HL7 use overarching socio-economic boundaries and other demographic stratifications is advocated, confluent towards our principle, superlative interoperability goal.

Current implementations of the HL7 standard are non-uniform, non-contiguous, nationally-oriented pockets of interoperability; true international exchange is veritably subverted. This paper propounds an unerring, reliable, and secure approach to actualize ubiquitous exchange and International Interoperability.