

Abstract for Enhancement Technologies-20080715
Enhancement Technologies for Clinical Information Systems

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The Health Information Technologies Research Laboratory (HITRL) specialises in research into the study of language processing for clinical needs. However there is a wider need for Health IT research and support. Hence the research of the Laboratory has already served a variety of clinical needs through the use of language processing and software engineering for ontology and classification development, and enhancements of clinical information systems. This experience has resulted in the Laboratory concentrating on research to create new technologies that can be bolted on to existing information systems, aimed at providing a productivity gain for the users. With our language technology skills we have enhanced information system functionality in a way that does not require people to change work practices and engage in costly and time consuming retraining. At the same time the new technology provides pathways to increased productivity without risk to existing mission critical systems. This work has lead us to define the strategic research objective of the HITRL as the invention of methods for assembling a computational model for the total patient case that can be used to interact with a great variety of clinical processing systems. This objective requires amongst other things addressing the difficulties of language processing of the complex narrative of clinical notes. Current technologies available for use or under immediate research and development are the Ward Rounds Information System (WRIS), Clinical Data Analytics Language (CDAL), Handovers Information Systems (HOIS), and Patient Workflow System (PWFL). The HITRL has also been heavily engaged in developing methods for rescuing data from decaying and moribund clinical information systems.