A Modular Approach for Representing and Executing Clinical Guidelines

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ABSTRACT

In this paper, we propose an approach for managing clinical guidelines. We outline a modular architecture, allowing us to separate two conceptually distinct aspects: the representation (and acquisition) of clinical guidelines and their execution.

We propose an expressive formalism, which allows one to deal with the context dependent character of clinical guidelines and also takes into account different temporal aspects. We also describe our tool for acquiring clinical guidelines, which provides a user-friendly interface to physicians, and automatically detects many forms of syntactic and semantic inconsistencies in the guidelines being acquired.

In the second part of the paper, we describe a flexible engine for executing clinical guidelines (e.g., for clinical decision support applications, for medical education, or for integrating guidelines into the clinical practice), focusing our attention on temporal issues.