

Weekly Seminar

12pm - 1pm, Friday, December 6, 2019
UWM EMS E237

Automatically Converting Clinical Terms into SNOMED CT Expressions

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Abstract:

A significant amount of medical data exists in natural language plain text form. Converting this text information into computer-amenable meaning representations can enable many automated clinical applications. As a step towards this goal, we introduce a machine learning based method to automatically convert clinical terms into their SNOMED CT expressions. SNOMED CT is the most comprehensive biomedical ontology which is best suited to represent meanings of complex clinical concepts and is also amenable for automated reasoning. Given that a concept is represented in SNOMED CT through its relations with other concepts, our method uses classifiers to identify the relations and the related concepts for a given term. Our method does not require any new manual annotations. We train and evaluate it using existing SNOMED CT concept-term pairs. The talk will provide a brief background on SNOMED CT, followed by description of the method and its evaluation.