

School of Medicine & Biomedical Sciences **Department of Biomedical Informatics**

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"Defeating Standard Terminology Approaches through Novel Formalisms for Ontology Research and Development"

Mainstream approaches to the development and use of biomedical (if not all) ontologies and electronic health records (EHRs) as representational artifacts are hampered in achieving their objectives. This is because there are problems inherent in the conceptual semantic foundations upon which they build and because of a lack of knowledge about ontology as a philosophical discipline. Through a historical survey of various projects I will demonstrate that these approaches not only lead to different sorts of mistakes in ontologies, but also to the inability to use ontologies adequately in EHRs. They lead also to a failure to integrate data repositories even if these ontologies are appropriately designed. I will then present a grand vision of the areas in which research in biomedical knowledge representation needs to move in order to overcome these difficulties in meeting the challenges of the future.

Wednesday, March 5, 2014 9:30 am – 10:30 am 134B Farber Hall