

[The MIT Information Quality
Industry Symposium](#)

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Title:

Metadata Management in Biomedical Research – a
comprehensive paradigm

Abstract:

Biomedical data, of variable quality, is collected and held in many different databases. These databases have been developed for different audience using different terminologies, formats and content. The variability in databases creates a dilemma for potential users of data because data needs to be combined together from multiple sources and analyzed for it to deliver additional value. To address these concerns a multi layer metadata approach is being implemented. The metadata layers help in standardizing the process of data collection, documentation, discovery and use of data. It improves the consistency, and integration of data which in turn increases data transparency and decreases ambiguity.

Metadata is simply data about data. There are distinct classes of metadata that need to be captured within a biomedical environment to allow the user to truly understand the data. This presentation discusses the creation of a comprehensive metadata layer consisting of both contextual and physical metadata models. Develop of metadata standards is critical for data quality. The presentation also discusses the development of the metadata standards for each data element and recording these parameters within a data dictionary that help guide the user as to the limitation on using the data.