Can a framework be constructed for biomedical engineers to help them in their research?

* How does the available data influence the choice for a certain research approach?
  + Multidimensionality
  + Data set size
  + Data Integration
  + Missing values ()
* How does the research goal influence the choice for a certain research approach?
  + Modelling
  + Data Mining
* Which available research programs should be discussed in this framework?
  + Known programs
  + Programs that excel in their job
* Which data analysis approaches are known and used by biomedical engineers?

<https://link.springer.com/content/pdf/10.1007%2Fb135955.pdf>

<https://jamanetwork.com/journals/jama/article-abstract/1883026>

<http://online.liebertpub.com/doi/abs/10.1089/cmb.1995.2.557>

<https://dl.acm.org/citation.cfm?id=1316794>

Very useful: <https://academic.oup.com/bib/article-lookup/doi/10.1093/bib/bbx044#81847657>

<https://www.ncbi.nlm.nih.gov/pubmed/26409508>

<https://www.ncbi.nlm.nih.gov/pubmed/26357313>

<https://www.ncbi.nlm.nih.gov/pubmed/24494442>

<https://www.ncbi.nlm.nih.gov/pubmed/28481991>

Prokosch HU, Ganslandt T. Perspectives for Medical Informatics: Reusing the Electronic Medical Record for Clinical Research. Methods Inf Med 2009; 48: 38–44.

Hey T. The fourth Pradigm: Data-intensive scientific discovery. http://research.microsoft.com/ fourthparadigm/

Zupan B, Holmes JH, Bellazzi R. Knowledge-based data analysis and interpretation. Artif Intell Med 2006; 37 (3): 163–165

54. Hothorn T, Leisch F, Zeileis A, Hornik K. The design and analysis of benchmark experiments. J Comput Graph Statist 2005; 14: 675–699.

55. König IR, Malley JD, Pajevic S, Weimar C, Diener H-C, Ziegler A, et al. Patient-centered yes/no prognosis using learning machines. Int J Data Min Bioinform 2008; 2: 289–341.