6.7 Interactive Online Services

6.7.1 The NIH Visual Browser: An Interactive Visualization of Biomedical Research (2009)


This paper presents a technical description of the methods used to generate an interactive, two-dimensional visualization of 60,568 grants funded by the National Institutes of Health in 2007. The visualization is made intelligible by providing interactive features for assessing the data in a web-based visual browser, see http://www.nihmaps.org. The key features include deep zooming, selection, full-text querying, overlays, color-coding schemes, and multi-level labeling. Major insights, broader applicability, and future directions are discussed.

Cluster selection with results shown in the right-hand column (top) and Query for 'NIH' in the title with results shown on the map and in the right-hand column (bottom).

6.7.2 Interactive World and Science Map of S&T Jobs (2010)

By Angela Zoss, Michael Connover, Katy Börner (2010)

This paper details a methodology for capturing, analyzing, and communicating one specific type of real time data: advertisements of currently available academic jobs. The work was inspired by the American Recovery and Reinvestment Act of 2009 (ARRA) that provides approximately $100 billion for education, creating a historic opportunity to create and save hundreds of thousands of jobs. Here, we discuss methodological challenges and practical problems when developing interactive visual interfaces to real time data streams such as job advertisements. Related work is discussed, preliminary solutions are presented, and future work is outlined. The presented approach should be valuable to deal with the enormous volume and complexity of social and behavioral data that evolve continuously in real time, and analyses of them need to be communicated to a broad audience of researchers, practitioners, clients, educators, and interested policymakers, as originally suggested by Hemmings and Wilkinson.
High level view of the Map of Science visualization. The map is circular, so areas of the map are repeated side to side as users scroll back and forth. Postings are clustered by 13 main scientific domains at the high zoom level and the 554 subdisciplines at the lower zoom level.