

Data Integration: The Challenge (and Beauty) of Working in an “Omics World”.

Jessica C. Kissinger^{1,2,3}

¹Department of Genetics; ²Center for Tropical and Emerging Global Diseases; and
³Institute of Bioinformatics; University of Georgia, Athens, GA USA 30602

Abstract

As the generation of “omic” scale data increases not only in quantity, but in data type, the informaticist and researcher alike, struggle to keep pace. The data have revealed so much, but are capable of so much more when combined, integrated and mined in ways previously unimagined. This later step has led to the generation of databases, data warehouses, Web Services and even parts of the semantic infrastructure required to make the necessary connections between seemingly disparate data. All of these resources have gone a tremendous way towards facilitating exciting and important research. But, there are still issues, chief among them education of the end user on the pitfalls, caveats, intricacies and power of integrated informatics approaches. This talk will explore some of the approaches that have been explored and discuss the need for user-friendly bioinformatics tools and design.