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Visualizing the Legislature

Speaker: Dr. Mugizi Rwebangira
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Abstract

As a consequence of continuing advances of information technology we are now able to store and process vast quantities of information that would have been unimaginable in the past. However, interpreting and making sense of such large quantities of data poses a significant challenge. To address this challenge several techniques have been developed to summarize and visualize large datasets and allow conclusions to be ascertained at a glance.

In this work we look at applications of these techniques to summarizing the votes taken by the United States Senate. Specifically, we consider a dataset of all the votes taken by the US Senate in a certain period and use techniques of data reduction and information visualization to visualize these votes in a graph. This then allows us to obtain a meaningful objective comparison of the voting records of different senators based on their actual votes and not on opinions or public statements. This kind of information is important for civic education and allows voters to make more informed decisions."

Biography

Mugizi Rwebangira is assistant professor of Systems and Computer Science at Howard University. He received his Ph.D. in computer science from Carnegie Mellon University in 2008 and his undergraduate degree in Systems and computer science from Howard University. His research interests include machine learning, computational biology and data visualization.