

CS Masters' Thesis Defense

Title: *U.S. Electoral History by GIS*
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Abstract:

The election of the President of the United States is an indirect vote in which citizens cast ballots for a slate of members of the U.S. Electoral College; these electors in turn directly elect the President. Presidential elections occur quadrennially. The most recent was the 2008 presidential election, held on November 4, 2008. The next presidential election will be the 2012 election, to be held on November 6. Under the U.S. Constitution, each state legislature is allowed to designate a way of choosing electors. Thus, the popular vote on Election Day is conducted by the various states and not directly by the federal government. The Democratic Party and Republic party are the two major contemporary political parties in the United States.

Scholarly studies of electoral behavior have a long and vibrant history. The aim here is to provide a selective summary of that history, focusing on the presidential election results in United States Of America by creating an interactive graphical tool.

This tool is intended to help students study U.S. presidential elections during the last several decades in a graphical and interactive map-based way. As this is a graphical tool, the users can see the map of the United States Of America and can click on the states shown on the map using a hotlink tool to see the electoral trends for the specific state for the past years. To demonstrate results in a better way, a coloring scheme has also been implemented.

The users will be able to see the trends of presidential election results in past years for all states in a matrix form; the coloring scheme is implemented in the matrix too for easy distinction between democrats and republicans in election results. A user of this tool can also select a year and see which states republicans won and which democrats won for that specific year on the map.

The US map is divided according to regional divisions used by the United States Census Bureau, and there is a layer for each region. When layers are active, users can see the election results in those regions for specific years. There will be a help file by which users can get useful information about using this tool. Help items are classified according to tools available in this application. Many standard map tools like zoom are available.

Teachers can give assignments to students based on this tool. This tool should make teaching and learning more interesting and interactive.