

The ACC: Representing a New Landscape

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ABSTRACT

This document describes an interactive representation of the teams and games of the 2005-2006 Atlantic Coast Conference's men's basketball season.

General Terms

Management, Design

Keywords

Google Maps, Information Visualization, Atlantic Coast Conference (ACC), National Collegiate Athletic Association (NCAA)

1. INTRODUCTION

The ACC Google Map is a Google Map that combines geographic as well as statistical data of the men's basketball teams of the ACC (Atlantic Coast Conference) this season. The ACC, one of the most powerful conferences in the National Collegiate Athletic Association (NCAA), completed its expansion in 2005 and vastly increased its geographic span—from Boston to Miami. This map allows one to view team location information, standings, their home and away game records, the distance they've traveled and will travel, as well as a comparative season distance between teams. The ACC Google Map affords both avid basketball fan interactivity as well as that of novice fans who simply would like to learn more about the ACC.

2. CURRENT SOLUTIONS

2.1 Traditional Media

ACC standings and game schedules are transmitted via different forms of media. Local newspapers often provide standings, upcoming games for local teams, and box scores of recent games. During the broadcast of ACC games on television, standings and schedules are listed out as text overlays to provide a better context for the game at hand. These text-based solutions, however, fail to represent a team's schedule in the spatial domain.

2.2 Web-Based Media

In the realm of online media, there is opportunity to present more than the text-based schedules. For instance, sports websites such as ESPN [2] or Yahoo! Sports [6] aggregate specific team information, rankings, box scores, photographs, and more via team links on a schedule. While these sites bring a lot of information together in one place, they still do not provide spatial data, thus leaving untapped the demonstration of data such as traveling distances and easily-mapped road wins and losses. A website created by Jesse Spector [4] shows the geographic layout of the teams of the ACC by adding custom markers with teams to a Google Map. Within the information window of a team marker

is the team name, its city, and its official website. While this example uses a good currently-existing interface, the Google Map, to show the geography of the ACC, it lacks any sort of schedule content.

3. THE ACC GOOGLE MAP

3.1 Data Represented

The ACC Google Map combines the geographic content of Jesse Spector's site with the scheduling and ranking content commonly dispersed by websites, newspapers, and television.

3.1.1 Geographic Data

The ACC Google Map provides locative data of each team in the conference. A map marker representing the team indicates its location on the Eastern seaboard as well as the name of the arena in which the team plays and its city and state.

3.1.2 Conference Standings and Team Records

This application goes beyond showing the geographic layout of the ACC. It also provides conference standings, individual team records (both home and away), and results of past games and information about future games.

3.1.3 Distance Data

The ACC Google Map also combines location data with game information by dynamically adding the distances traveled by a team upon playing away games. These distances are shown both individually when a team is selected (including distance traveled thus far in the season as well as the total distance to be traveled this season) as well as a comparison between all teams' total traveling distances.

3.2 Data Structure

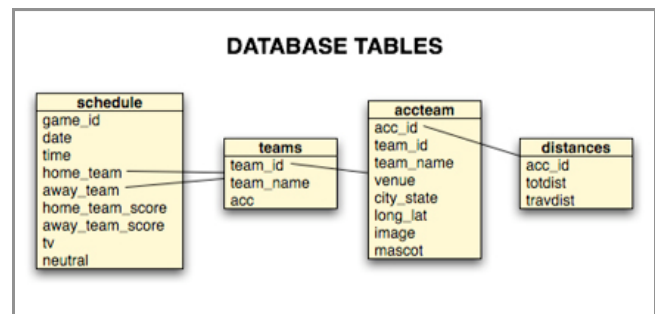


Figure 1. Database design of the ACC Google Map, including the tables *schedule*, *teams*, *accteam*, and *distances*.

All of the data for the application is created through MySQL queries and PHP functions, so the system is dynamically updated whenever the database is. The database is structured into the following tables: schedule, teams, accteam, and distances (see Figure 1). The schedule table includes all the games of the 2005-2006 season involving at least one ACC team (from theacc.com [1]). Each game includes the date and time in which it occurs, the home and away team involved, the scores (if the game has occurred), and the media outlet broadcasting the game. The teams table includes the team name and whether it is in the ACC or not. The accteam table provides information about each ACC team—its name, venue, location, mascot name, and the location of its logo image on the website for future reference. The venue and location data have been pulled from [4]. The distances table includes distance information of the team (which is created dynamically after PHP code queries the database for game information).

3.3 Interface Design

This application’s interface provides both ACC-wide information (e.g. standings) and team-specific data (e.g. next game). Figure 2 shows the initial screen of the ACC Google Map.



Figure 2. Initial setup of the ACC Google Map, including team logos on the map, team names, and team standings.

3.3.1 ACC Information

The initial screen of the application provides general ACC information. From this point, a user can click on the tiny map logos, which act as Google Map markers, to display information about their venues, location, and records. The white box in the lower right-hand corner provides current standings within the ACC. The conference and overall records for each team are displayed. Additionally, the user may select the “SHOW DISTANCES” button to display the distance each team travels throughout the season to play ACC competition.

3.3.2 Team Information

When a user clicks on one of the team icons in the upper right-hand corner of the screen, that team’s schedule appear on the map. The team’s away games are coded by icons that represent wins, losses, or future games (check marks, x’s, and question marks respectively). Upon clicking on the marker, the user sees the specifics of the game (the opponent, the score, and the date). The

team’s home venue is indicated by the team’s logo as its marker. Clicking on the logo will show the result of every game played by that team in their home arena. Figure 3 shows Georgia Tech’s game results at home.

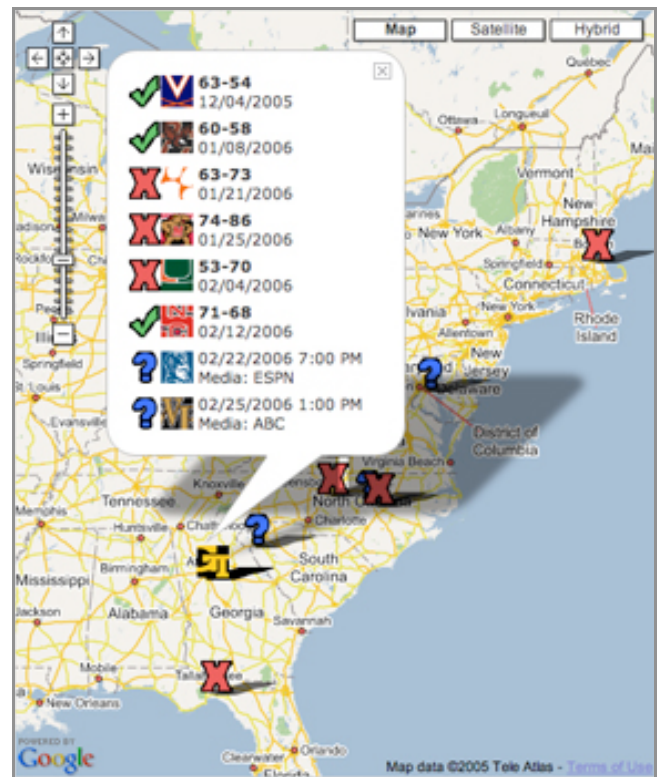


Figure 3. Georgia Tech’s home game results, with check marks representing wins, x’s losses, and ?’s future games.

In addition to individual game results and future game information, more detailed information is displayed in the white box. This information includes, in addition to overall and ACC record, the team’s overall and ACC home and away records. It also displays the results of the last game the team played and the information of the next game. Additionally, a bar graph shows how far the team has traveled so far in the season (in miles) and how much it travels total throughout the season. See Figure 4 for this individual team information display.

3.4 Future Features

While this application brings together two different types of data—location and event-based information—much more can be done to bridge the gap between them.

3.4.1 Time-Based Selection

Currently, the only sets of data a user can see are venues of all teams and a single team’s season-long schedule. An option I would like to provide would be time-based searching; for example, a user should be able to see games occurring during the current week, only future games, only past games, or games within a certain time range. The current application does not support this.

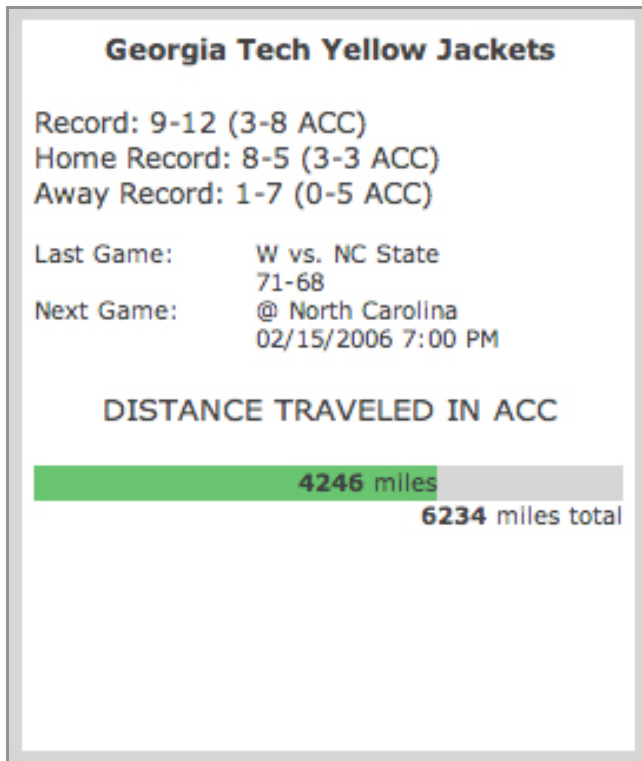


Figure 4. Detailed information about an ACC team.

3.4.2 Journey Visualization

I would like to map out visually a single team's journey throughout the season. This could be done with Google Map polylines drawn from one team to the other. I could animate the journey and perhaps in each window of a marker have links to "go

to next game" or "jump back to last game" which would guide the user to the next/last arenas to which the team travels.

3.4.3 Team Expansion

I have all the information of every opponent each ACC team has this season, as well as game results, and I would enjoy expanding the map to include out-of-conference opponents and their arenas. This would provide a deeper knowledge of the team's overall season, as one could see if the team traveled a lot in the preseason or took distant away games during the regular season. This step would require collecting the location information of every opponent (also available on [4]).

4. ACKNOWLEDGMENTS

Many thanks are in order to Jesse Spector for his permission to use the data he collected in such a time-consuming effort. I encourage readers to explore his website. Additionally, the Google Maps API [2] and the Phoogle codebase [3] among other resources were extremely helpful in my development of the ACC Google Map.

5. REFERENCES

- [1] 2005-06 ACC Men's Basketball Schedule/Results. <http://theacc.collegesports.com/sports/m-baskbl/acc-m-baskbl-sched.html>
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- [5] Spector, Jesse. NCAA Google Maps. <http://jessespector.com/ncaamaps/>
- [6] Yahoo! Sports. <http://www.sports.yahoo.com>