

Development Team and Techlab Selection Module

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One of our primary projects of this year has been to create a selection process for the Senior Research Laboratories, or Techlabs.

Plan

The Techlab Selection Module was designed after extensive communication with Mr. Strong and the Guidance Department. Guidance wanted a simpler and less paper intensive way for students to be placed into the various senior research laboratories available at Thomas Jefferson High School for Science and Technology. This transition would be facilitated by the web site produced by the Development Team.

At first there were many difficulties and setbacks because a coherent plan for requirements was not established. In addition, the Administration decided to implement the prototype in the middle of development for the Junior Class of 2005. This resulted in a need to rush the project to completion, which meant that some functions were not fully thought out. After extensive communication with all parties involved, the project went through many revisions and evolved into an effective and working state.

In the end, the project worked successfully, placing all juniors into a senior research lab through a process that was at least as rigorous and comprehensive as the traditional paper-based approach.

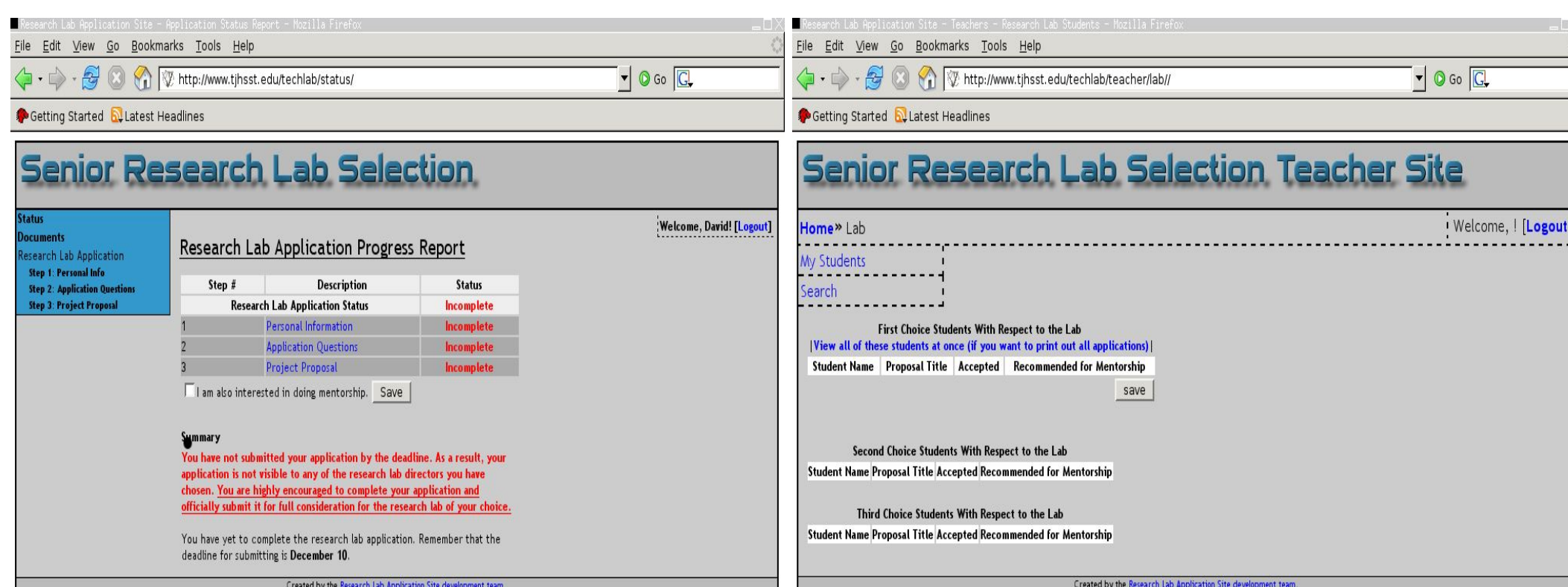


Main Log-in Site for Techlab Selection
<http://www.tjhsst.edu/techlab>

Organization

We divided the students up according to their expressed primary Techlab of interest, while remember their second and third choices. Teachers were allowed to view the information of all students in order to make comparisons and determine the quality of an individual student's application. However, teachers could only accept students from who had chosen their lab as their first choice.

We created five different types of accounts for student, teacher, counselor, administrator and developers. This meant that certain users had privileges that others did not, maximizing usability but minimizing security and privacy violations.



Different Users Have Different Interfaces

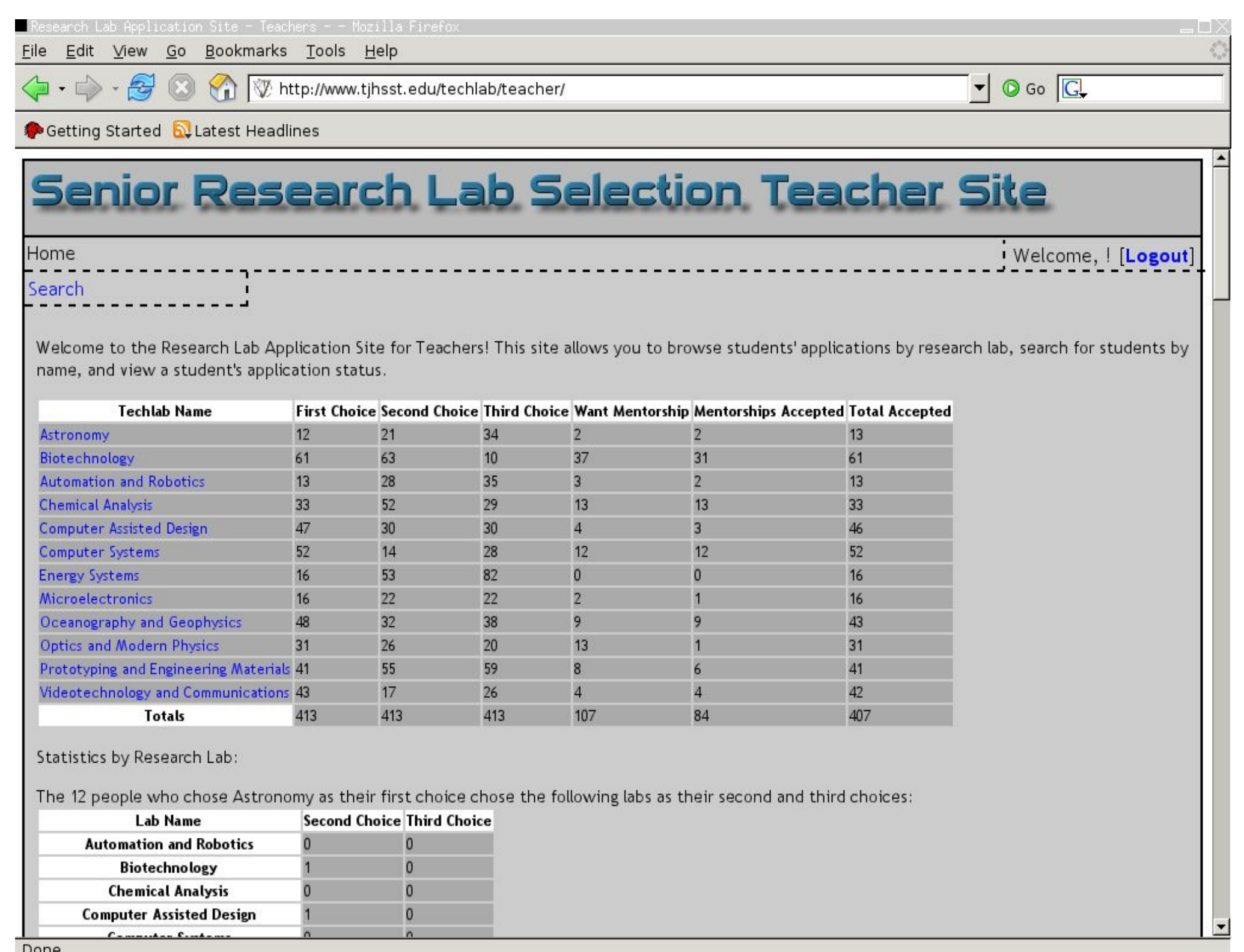
Interface

The Techlab Selection Module has a simple, all-business interface, which effectively displays all the necessary information about the candidate and gives statistical information that would not be available in the paper-based version. Unlike the previous paper-based selection process, teachers were also able to view data concerning students who had either not chosen their laboratory or had chosen their laboratory as a second or third choice. Thus, a teacher could see if the candidates that could be arriving after the first cut would be equal or more qualified for the laboratory than the initial applicants to the laboratory.

Because the administrator, in this case, Mr. Joshua Strong, was able to easily view all the data and placement information, he could and did play a strong role in making sure all the Techlabs had adequate numbers of students. In the past, it was difficult to find a global view of the number of students in each Techlab and to move students from Techlab to Techlab after the problem had been discovered. This year, Mr. Strong was able to move some of the less decided candidates to the smaller labs and maintain a more equitable distribution of students. This will be even more important in the future as class sizes outstrip the resources of the school.

Mentorship

Throughout the Selection Process, special attention had to be paid to the Mentorship process. For the purpose of the Techlab Selection Process, Mentorship happened within the Techlabs, but the process needed special accommodations to flag the students who wanted to participate in it. In the initial phase, students could opt to be recommended for Mentorship. Once the student was accepted to a specific research laboratory, the director of the laboratory could recommend the student to the Mentorship. Recommendations were passed onto a higher Techlab committee which made recommendations using the information from the Techlab Selection Process.



The Administrator Site Gives Statistical Information

Goals and Results

The goals of the project were:

- To streamline and replace the paper-based process.
- To provide statistical information about Techlab Selection.
- To allow for feedback from all parties involved.
- To allow for improvement for future years.
- To allow for simple use in future years.

The following results were achieved:

Feedback was obtained from teachers and students. All students were put into Senior Research Laboratories. Counselors had access to this information for Course Selection. No Techlab was overburden with students or significantly under capacity. Statistical data was collected about how many students were in each lab. More than 60% of students were placed in their first choice Lab.