ITWS WebSys Final Project

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Rensselaer Research Explorer

//Intro

The problem we faced was brought up by a current student. It involved how it was difficult to learn about, and therefore participate in, the various research projects being worked on around the RPI campus. Our solution to this problem was the Rensselaer Research Explorer. The RRE is a site where individuals (preferably RPI students and faculty) can search for active or completed research projects currently conducted at RPI. The site allows those individuals to submit their research along with papers (if their published already) and view those already published on the website.

//Execution

The website was created using the various technologies we learned in class. On the front-end side, Natasha and Rob used HTML5 and CSS3 to design the general layout and the website’s forms. This also included using Bootstrap themes for the login and Webfonts. Max used Javascript for form validation using a jQuery plugin. Andrew handled the back-end with PHP and a MySQL database using SQL searches. This included handling the user inputs, hashing and salting passwords, performing user authorization and authentication, and storing the user’s information in the database. Our MySQL database contained two tables, one for the users and the other for the research projects.

//Functionality

As a general user, you have the ability to create a new account and login, or just view the projects currently in the database. Users can search through the research by title of the project, the name of the submitter, or choose one of the five categories of RPI research. Once logged in, you then have the ability to submit their research and add it to the database. As an administrator, you have the ability to make another user an administrator, delete users, review submitted research and delete it if deemed necessary according to the quality and terms and conditions set forth by RPI.

//Conclusion / Future Updates

Overall, the project could obviously use more work. More features could be added and/or the UX could be improved. For example, allowing the users to do more. This could include being able to rate or comment on research projects, or we could have user profiles that they could modify. As for administrators, an email update could be sent when new research is submitted, and an email could be sent out to the user after their research has been reviewed by an administrator. Another aspect we did not really focus on was accessibility. This could be improved by increasing text and button sizes, and maybe altering the colors where needed. Finally, if this were to be deployed to the RPI community, it would be good to integrate with the existing technological infrastructure and use the Central Authentication System that the DotCIO employs. This would ensure that all research is being submitted by someone in the RPI community.