**Future Work**

Beyond that, we would like to enhance the user interface by providing more extensive APIs to populate the groups, projects, and sessions appropriately. Then we hope to include a proper notification queue, such that each page the user is on, whether it’s a user page, group page, project page, or session page, it will have a feed of relevant recent events. With this feature, we want to take advantage of the power of recommending and inspiring users to explore interesting topics and connect with other earth scientists.

One of the potential challenges of incorporating a social network into OpenNEX is accounting for the eagerness of earth scientists to create various interest groups and maintain them actively. To address this, we are proposing a workflow where the user is automatically prompted with a template group for creation initially, and then actively reminded to maintain the group’s information periodically. The user will also be able to browse through existing interest groups quickly to see if a similar one has already been created. With this feature to enhance and encourage participation, we think the social network will be more active and users will find the collaboration platform to be more user friendly and supportive.

In addition, prior to releasing the prototype on the web, it is important that we focus on addressing the security concerns of the product. We started out with the basic assumption that all users of the site are friendly and here to collaborate, hence we are not strictly enforcing and checking user input fields. After the prototype is functional and well tested, we will then focus on adding security checks to strictly verify user inputs to ensure that we are not exposed to the various common security vulnerabilities such as authentication, clickjacking, cryptography, input validation, sql injection, and cross site scripting.