

Supporting the PSI-K Community Using Sakai VRE

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Success of the UK JISC (Joint Information Systems Committee) funded Sakai VRE (Virtual Research Environment) Portal Demonstrator Project has clearly demonstrated how a Sakai (an e-Learning platform) based VRE system can be extended to “*help researchers in all disciplines manage the increasingly complex range of tasks involved in carrying out research*”. The outcome of the project highlights VRE as a promising way to improve research efficiency and productivity. As presented in our previous publications, a VRE system is typically constructed on top of a bundle of services either local or remote. Such a system should be able to be extended on demand by plugging in new services. For example, our Sakai based VRE demonstrator has various tools plugged in Sakai developed by project partners: 1) WSRP consumer tool for consumption of remote portlets, in particular, grid portlets developed for the UK National Grid Service (NGS); 2) document management tool for organising conferences/workshops; 3) Agora – an online meeting tool which supports chat, video conference, shared desktop, etc. from Lancaster University.

Recently the PSI-K community led by staffs in the STFC Computational Science and Engineering Department is looking for migration of its current web hosted services to Sakai. The PSI-K community is built up with researchers in the field of electronic structure calculations. This would be a great chance for building up a Sakai VRE system to serve users from a particular community. After initial discussion, objectives are set as the following:

- 1) customisation of Sakai registration service with additional information collected;
- 2) a tool for collecting workshop proposal submission;
- 3) migration of existing PSI-K mailing list to Sakai;
- 4) a tool for auto- or half auto-creation of the community newsletter.

Objectives listed above basically require 1) customisation of Sakai and 2) development of new tools/services. Our work on the Sakai VRE Portal Developer Project would be a very good starting point. For example, we can develop a workshop proposal submission tool based on our work of the document management tool. Besides the above objectives, the PSI-K community currently suffers a lot of junk emails on their mailing list. Therefore a better managed approach mailing list would be desired. This fits in well with Sakai’s in-built role based control policy mechanism.

While the above user requirements can be classified to *administrative* tasks, a VRE system should at the same time provide support for *real* research tasks. For example, a VRE system can be used to help numerical simulations which are very common

nowadays in many research subjects. Grid resources have already been deployed at different levels for supporting *real* research. Therefore we envisage *grid* as another key component inside a VRE system besides *collaboration*. While in broad sense *grid* realises some type of *collaboration*, here we consider *collaboration* focusing on the human side, such as activities of chat, discussion, etc.

After several years of work on VRE and grid, we gradually realise that the core of VRE systems are *community*, i.e., VRE systems are user-driven. We hope our ongoing work would keep this in mind so that our VRE system would as much requirement as possible from the PSI-K community which currently has around 2,000 users.