

Implementing Sakai Open Academy Environment Pros and Cons

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Abstract—Sakai OAE (Open Academy Environment), formerly Sakai 3, is the second generation of Sakai CLE (Collaboration and Learning Environment). It was developed with a new vision for academic collaboration (collaboration in education and research). The name switched from the name Sakai 3 because the community thinks this is a completely new product category, just as Sakai CLE distinguished itself from other LMS. Sakai OAE is not just another LMS. It has LMS functionality, but it allows the community to expand the boundaries of one university. This paper explains one implementation of Sakai OLE and one approach to its usability. Because content is of primary interest in Sakai OAE, content creation and use, creating documents, course creation, etc. are demonstrated here in this paper.

Index Terms—Open Academy Environment, Content creation, Course creation, Content Profile

I. INTRODUCTION

The Sakai Project (named after Iron Chef Hiroyuki Sakai) started as partnership between four universities: Indiana University, University of Michigan, Stanford University and Massachusetts Institute of Technology and two well established higher education projects in the Open Knowledge Initiative (OKI) and uPortal activity. The purpose of the project was to produce open source Collaboration and Learning Environment (CLE) software. The Sakai Project was described in the proposal:

The products of this project will include an Enterprise Services-based Portal, a complete Course Management System with sophisticated assessment tools, a Research Support Collaboration System, a Workflow Engine, and a Tool Portability Profile, i.e., clear standard for writing future tools that can extend this core set of educational applications [1-3].

The Sakai CLE represents the values and requirements of the community of educators who have contributed to the software:

- Academic collaboration
- Research collaboration
- Portfolios
- Enterprise reliability
- Open pedagogy
- Open standards

The latest version of Sakai CLE, 2.8, was released on 11. April 2012.

Sakai OAE is a completely new system currently under development that incorporates all of the values of the

Sakai CLE and re-imagines a new vision for academic collaboration. Sakai OAE's development shifts the standard approach to academic collaboration to become

- Permeable
- Personal
- Social
- Re-mixable

This paper explains how to implement Sakai OLE. Because content is of primary interest in Sakai OAE, content creation and use, creating documents, course creation, etc. are demonstrated here in this paper.

II. SAKAI OAE

Sakai OAE (Open Academy Environment), formerly Sakai 3, is the second generation of Sakai Collaboration and Learning Environment. It was developed with a new vision for academic collaboration (collaboration in education and research). They moved from the name Sakai 3 because the community thinks this is a completely new product category just like Sakai CLE distinguished itself from other LMS. Sakai OAE is not jet another LMS. It has LMS functionality, but it allows community to expand boundaries of one university.

A. Sakai OAE Releases:

Version 1.2 was released on 25 April 2012

Version 1.1 was released on 15 December 2011

Version 1.0 was released on 8 September 2011

Development of Sakai OAE does not mean that Sakai CLE will stop developing releases. There are hundreds of institutions running Sakai CLE, and, according to Ian Boston (Chief Sakai Architect), there will be releases as long as there are institutions wanting releases. Sakai OAE and Sakai CLE address different needs with some overlap. Those two products will be developed in a parallel.

Sakai CLE and Sakai OAE are seen as complementary platforms because they target different lenses in the Sakai Learning Capabilities Design Lenses. If you join both of them, almost all of the teaching lenses are covered. So Hybrid Sakai is obtained as:

Hybrid Sakai = Sakai CLE instance + glue code + Sakai OAE instance

Currently, there are over 350 Sakai CLE instances [4-6]. And there are 6 Sakai OAE pilot instances (University of California, Berkeley, Charles Sturt University, New York University, Georgia Institute of Technology, Stanford University, University of California Online Education). New York University is planning to move

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completely from Blackboard to Sakai OAE in 2013. This shows that Sakai OAE is not mature enough to be instantly adopted. For institutions planning Sakai implementation, the best path is to install Sakai Hybrid, which will enable using Sakai OAE portal with embedding necessary tools from the Sakai CLE.

Example: current pilot, University of California, Berkeley [7]:

- Student Experience - students will be able to use Sakai OAE to retrieve and act on tasks, manage important links, create a personalized profile, create and share content, and create groups for collaboration.
- Student Groups - student organizations will be able to create groups to manage their memberships and share content with their members and the public.
- Department Groups - staff in departments will be able to organize and share content with students, faculty, and staff within their department.
- Courses - we will be consulting with faculty during the fall semester to deliver a limited number of courses via Sakai OAE in Spring 2012
- We will also be deploying hybrid-mode against Sakai 2.7 to provide students a view into their existing Sakai sites.

All of new functionalities that are implemented in Sakai CLE are designed to fit into Sakai OAE UI (user interface). They can be joined so that the Sakai CLE tool is placed into Sakai OAE page. Because Sakai OAE doesn't have all of LMS functionalities, the idea is to use it from Sakai CLE until all of them are covered in Sakai OAE. The Sakai OAE portal will be used to connect to Sakai CLE.

III. SAKAI OAE INSTALLATION

For simply running and experimenting with the latest Sakai OAE release on local machine, it is only necessary to download the one-click installer. This will not allow changing any of the Sakai OAE code and will be a completely new setup with no content and no other users.

Steps:

1. Check prerequisites (Java JDK version 1.5 or higher (JDK, not the JRE))
2. Click on a link that points to a .jnlp (Java Web Start File) file. <http://source.sakaiproject.org/release/oaef/1.2.0/webstart/sakaioae.jnlp>
3. Download the .jnlp file and start it.
4. Click on Launch and wait until you get the message Nakamura is running (Figure 1)
5. Click on Open Sakai OAE or go to <http://localhost:8080>

IV. IMPLEMENTING SAKAI OAE

This section covers some of the important features of Sakai OAE.

A. Sakai HOME Page

When you go to your Sakai site, on the first page you will see recent activity in the system and content allowed as visible. It is possible to access a public document without being logged in (Figure 2).

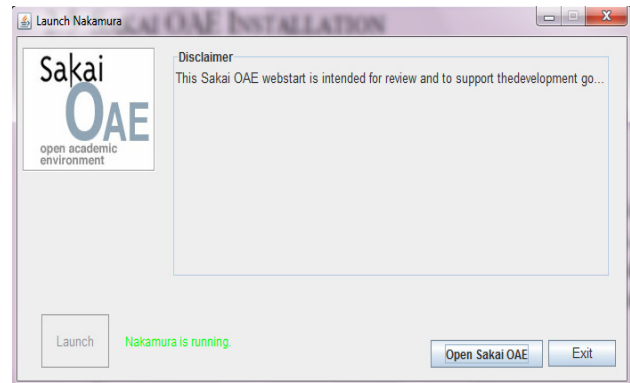


Figure 1. Installing Sakai OAE

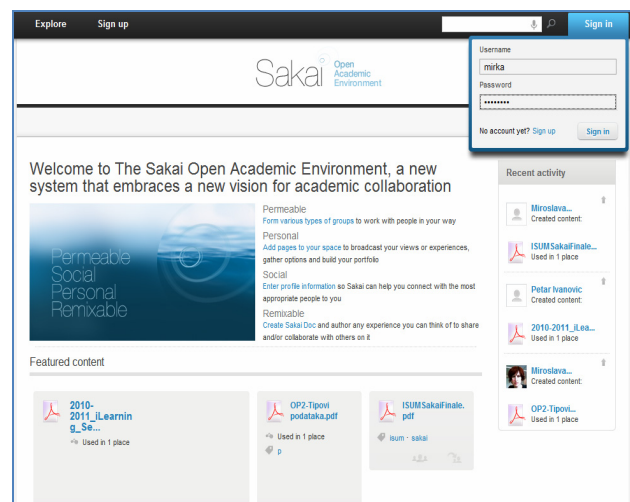


Figure 2. Sakai Home Page

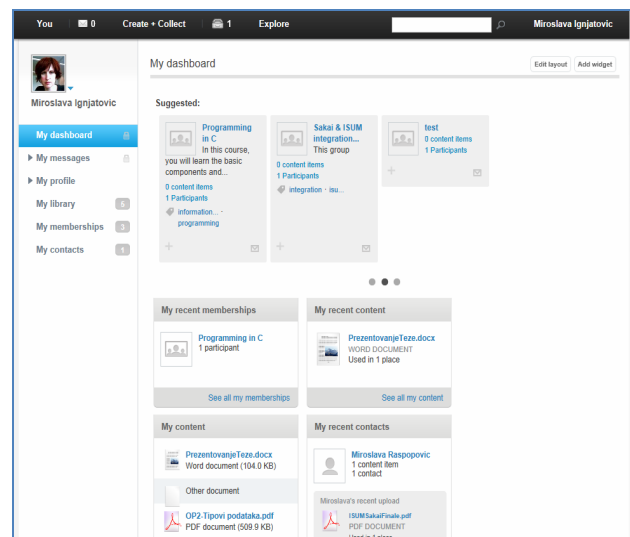


Figure 3. My Dashboard

B. My Dashboard:

My dashboard (Figure 3) offers ways for users to involve in the system by giving suggestions. It suggests content to users, other people in the environment or groups that the system thinks are of interest to the users. Also recent user activity will be also shown in widgets like My recent memberships, My recent content, My content, and My recent contacts. Widgets can be simply added or removed from the page (Figure 4).

C. My Profile

My Profile (Figure 5) is a personal place for users. It allows the user to define how he/she wants to be presented in the environment and how others can find him. Basic Information: Some fields are customizable by an institution. For example, Role/position and College can be pre-set with the values. Tags and categories allow users to be found by other users with the same interests.

D. About Me

Offers more space for users to add some more information, for example biography, academic and personal interests, or hobbies. All of those fields are searchable (Figure 6).

E. My Library

My Library (Figure 7) contains documents that are created by users that are shared with users and files that are bookmarked as being of interest for users.

F. Content Creation and Use:

1) Content Profile:

Content is of primary interest in Sakai OAE[8]. A main difference, when compared to content in other systems, is that content has a Profile: like people, like group (Figure 8).

From the profile, it is possible to find out who is using this document (person or a group). The profile makes content searchable. With tags, users define the key words that define this document. It is possible to control by whom and how this document is used.

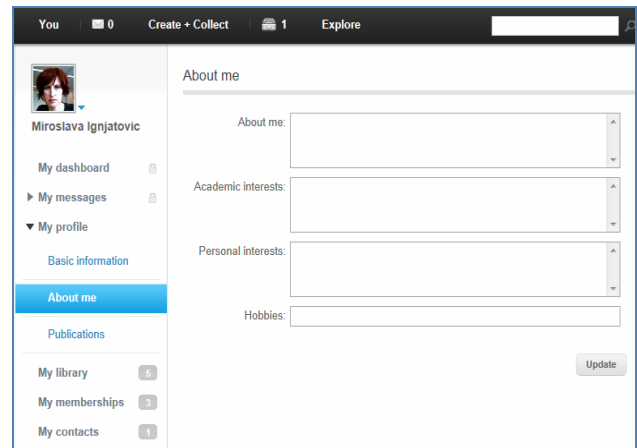


Figure 6. About me

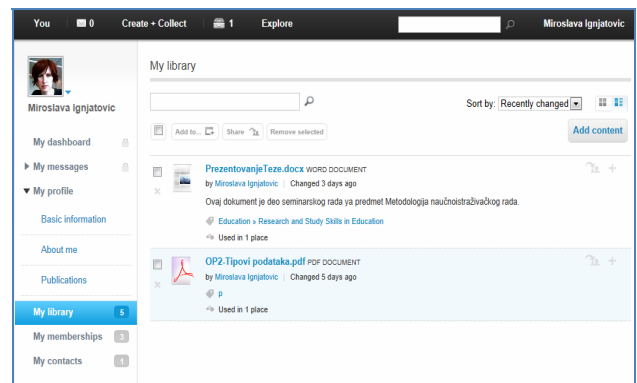


Figure 7. My library

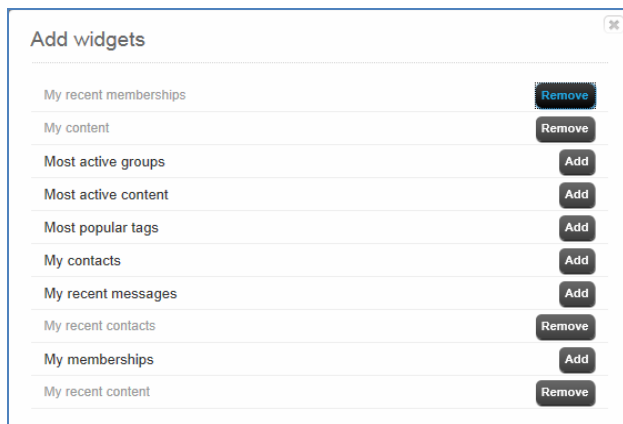


Figure 4. Add Widgets

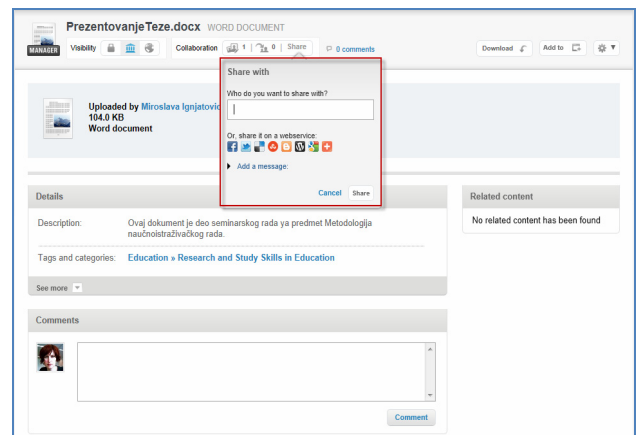


Figure 8. Profile of one document with possibility to push it into the cloud

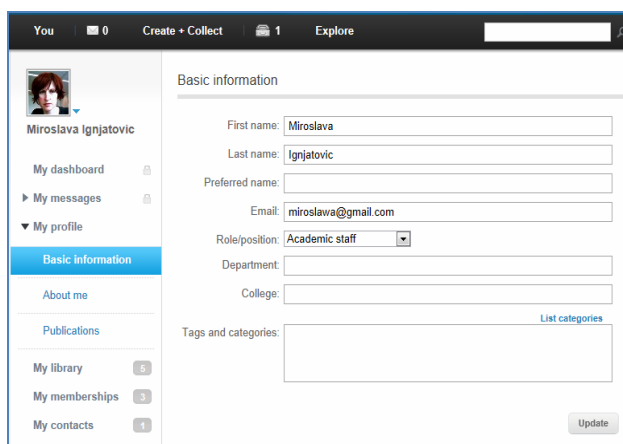


Figure 5. My profile

2) Add content:

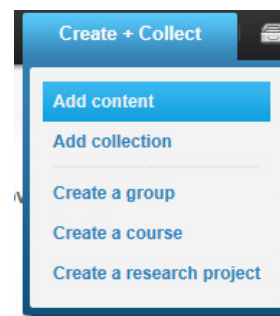


Figure 9. Add content

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3) *Add File from disk*

It is possible to add files from local disk into My Library (Figure 10).

4) *Create new document*

To create a new document, a user has to add it to My Library first and then open it from there (Figure 11).

A user has to select Edit page (Figure 12). Basic LTI provides the possibility to use the external tool and to embed it into the page (**Basic LTI** (Figure 13) is a standard way for externally provided tools to integrate with a learning management system or portal).

5) *Course Creation:*

From Create + Collect drop down list, select Create a course. Users can currently choose from two templates: Mathematics course and Basic course. It is possible for a university to create its own template (Figures 14, 15, 16).

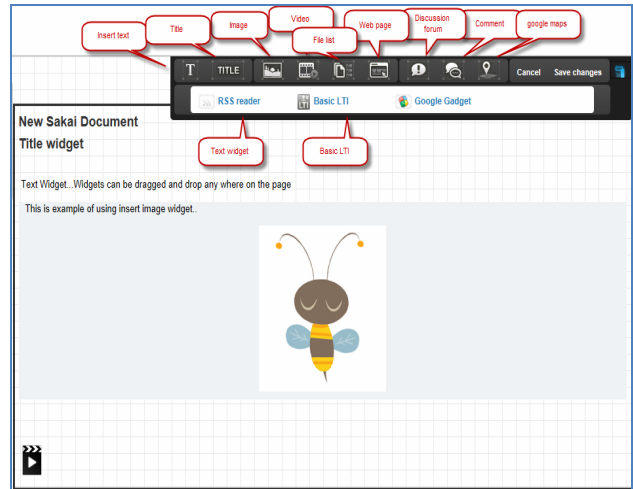


Figure 13. : Basic LTI

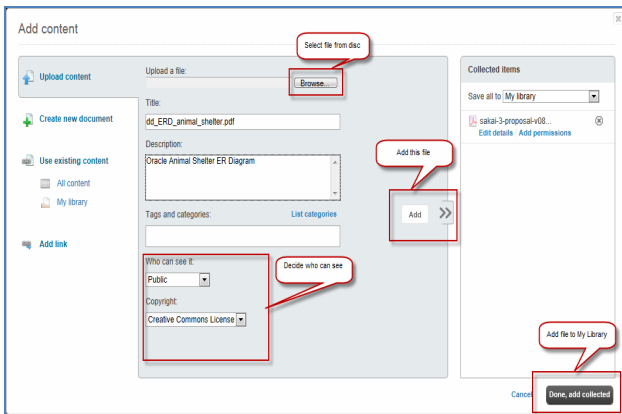


Figure 10. Add file

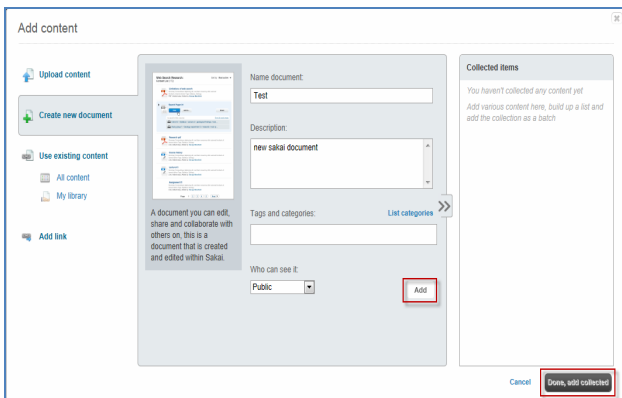
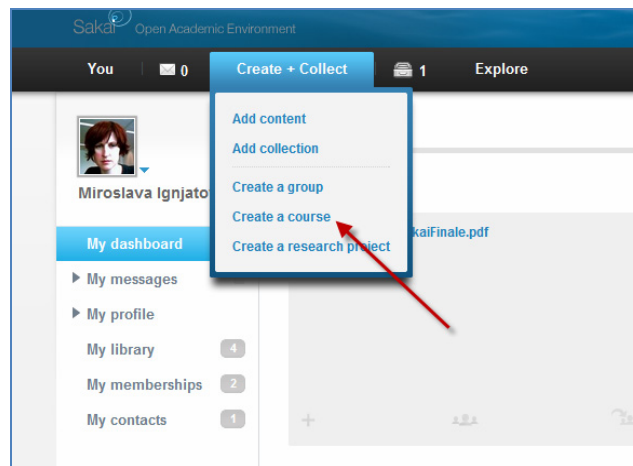


Figure 11. Create new document

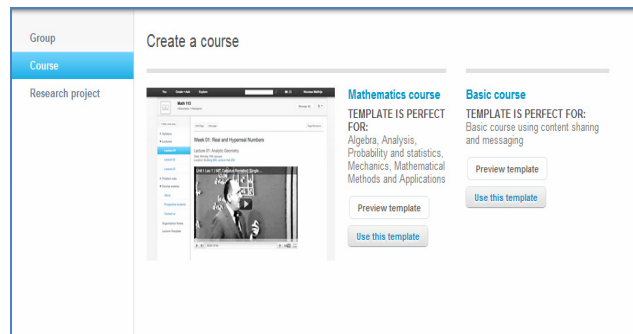


Figure 14. Course creation

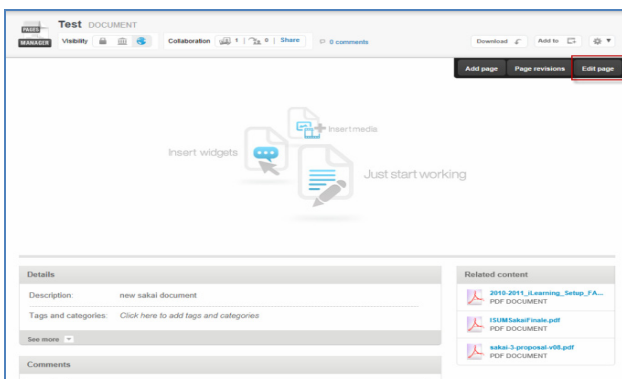


Figure 12. Edit page

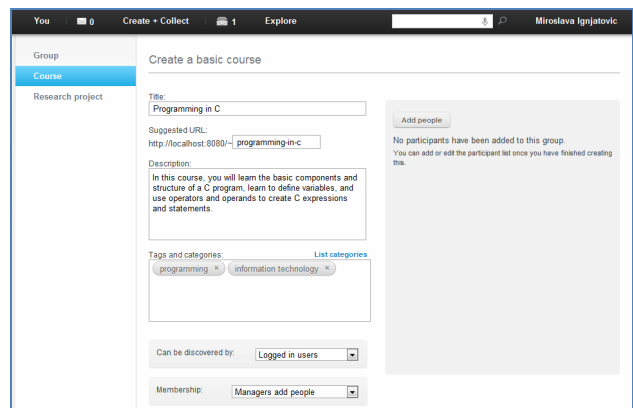


Figure 15. Creating a new basic course

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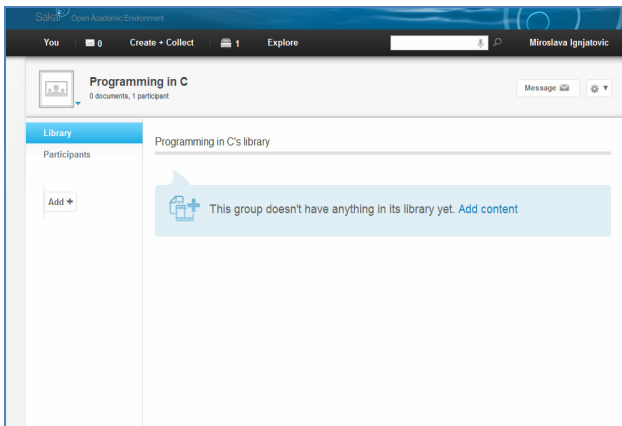


Figure 16. Course space

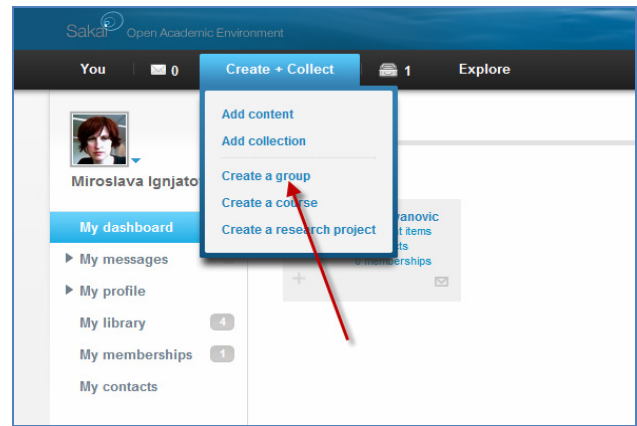


Figure 17. Create a Group

6) Create a Group:

Creating group is a simple process (Figure 17).

To create a group, a user has to provide basic information like Title and Description. Tags and categories have to be filled to make it possible for a group to be easily searched. In “Can be discovered by,” users determine visibility of the group. Possibilities are Public, Logged in users, and Participants only. In the Membership field, users determine ways to become a member of the group. Options are: People can automatically join, People request to join, and Managers add people (Figure 18).

V. CONCLUSION

Sakai OAE is a platform for a new vision of e-learning. It embraces the ideals of open collaboration and community within teaching, learning, and research. It still does not have core LMS functionality like assessment, grading, test tools, but it offers great support for collaboration. This limitation can partly be overcome by launching external tools using Basic LTI.

Currently, there are over 350 Sakai CLE instances. And there are 6 Sakai OAE pilot instances. New York University is planning to move completely from Blackboard to Sakai OAE in 2013. This shows that Sakai OAE is not mature enough to be instantly adopted. For institutions planning Sakai implementation, the best path is to install Sakai Hybrid, which will enable using the Sakai OAE portal by embedding the necessary tools from the Sakai CLE.

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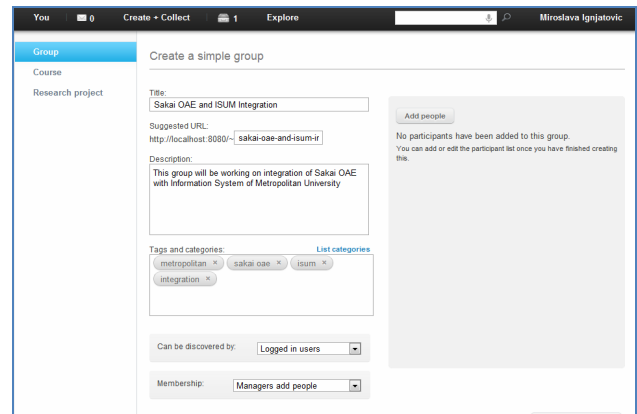


Figure 18. Create a simple group

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