

General framework for roles and permissions in Dokeos

Written by Frederik Questier

Presented by Frederik Questier @ Dokeos dev meeting 24/08/2005

Input/ideas by Evie Embrechts, Isabel Deprez, Stijn Van Achter, Plone CMS

Creative Commons License by-nc-sa



Principles / Key concepts

- General framework, future proof, also for extensions
- Quite optional:
 - Freedom for admins who can delegate their freedom

- Roles
- Permissions
- Localization
- Inheritance
- Work flows

Roles

- Roles (and permissions)
 - some should be predefined in Dokeos
 - can be changed by admin
 - can be created by admin
 - can be assigned by admin (and teachers if admin wants that)
- **Role creation and changing** are just two of the permissions which can be given to certain roles.

Roles

- Some roles are global (G), some are local (L):
 - G Visitor (anonymous)
 - G Authenticated
 - L Guest Course Member
 - L *Official* Course Member (enrolled)
 - G Student
 - L Teaching Assistant
 - G Teacher
 - L *Official* Course Teacher (titularis in dutch/latin)
 - L Owner (of objects)
 - G Admin

Roles

- Each person can have **several roles** (as in real life)
- **Global roles** and their permissions can be changed and assigned by the admins
- **Local roles** and their permissions can be changed and assigned by the teachers or whoever that has the 'change local roles permission'
- Except maybe the (optional) '**Official**' roles which could come from an external administrative database.

Permissions

- View
- Add
- Edit
- Delete
- Sort
- Suggest
- Review/Publish
- Assign Local Roles
- Create (Local) Roles
- Change Permissions of Local Roles
- *Change access permissions (visible/unvisible or world/institution/class/owner)*
- ...

Generalization

- All these permissions can be very general, but context sensitive (**localized**)
 - e.g. 'Add' permission can mean
 - Add
 - course
 - groups
 - links
 - documents
 - forum sections
 - forum topics
 - ...
- All these permissions could be split up, but localization is the better way to do it.

Inheritance

- Consider Dokeos as an hierachical (folder) system
- Local permission settings can be inherited from upper folders.
- inheritance flag on/off
- example
 - By default students have only View and Suggest permissions in (root) link folder/tool
 - Teacher can give students the Add/Publish permissions in the folder 'studentlinks' (and therefore in its subfolders)

Assigning permissions

- Permissions are assigned to roles
- Permissions are *not* assigned to users
 - because one anyway needs roles (Dokeos has since long Student, Teacher and admin roles)
 - because assigning and checking both user and role permissions is difficult
- If teachers are assigned (by admin) 'Change permissions' and 'Change roles' permissions:
 - Teachers can change the permissions for ***all students*** by changing the permissions for their roles.
 - Teacher can change the permissions for ***certain students*** by assigning them an extra (existing or new) role.
- There could be a few **predefined 'Powerfull student' roles** which could be localy adapted by each teacher.

Conflicting permissions?

- Conflicting permissions from different roles:
 - **positive permissions overrule !**
- This works if local roles are used correctly
 - examples
 - don't grant Add/Edit/... permissions to global 'Teacher' role (which would be on each course), but to 'Official Course Teacher'
 - don't grant View permission to 'Student' role (which would be on each course) but to 'Official Course Member (enrolled)'

Workflows

- Example:
 - Student Suggests something (e.g. link)
 - The student is Owner of the object and can still Edit it.
 - Teacher (or anyone with local review permission) *or* Deletes *or* Publishes the link (i.e. gives View permission to other roles)

How to make it easy?

- Visualisation

- On every location (global, course, group?, tool, file, ...)
 - User Permission Matrix or 'ACL' (Access Control List)
 - Roles page, where first a Role is chosen, and then users can be added.
- Whenever roles and permissions are shown, it should have links to definitions and Permission matrix
- ...

- Implementation

- Default roles and permissions can be chosen according the current Dokeos settings
- All tools should try to match the general permissions
- ...

