The DSpace Course - User management and authentication options

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The DSpace Course

Module – User management and authentication options
Module objectives

By the end of this module you will:

- Understand the concepts of authentication and authorization
- Fully understand user and group management in DSpace
- Have added and removed users from groups
- Have a high level understanding of some advance authentication options
Two important concepts:

- **Authentication (AuthN)**
  - The process of establishing the identity of a user

- **Authorization (AuthZ)**
  - The granting of privileges to a user to perform an action on a resource
User creation and management

- **User creation**
  - Covered in module ‘An introduction to users and groups’

- **User management**
  - **Modify users**
    - Administer menu -> E-People -> Select E-person -> Edit
  - **Delete users**
    - Administer menu -> E-People -> Select E-person -> Delete...

Administer EPeople

Choose an action:

- Add EPerson
- Select E-person

OR

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then Edit

Delete...
Referential integrity

- Database theory of relational databases
- Data cannot be deleted if it referred to elsewhere
- So...
- Users cannot be deleted if they own anything
  - Submitted items
  - Items in a workflow
  - Items part way through submission
- This maintains the integrity of the data
Group management

- Administer menu -> Groups
- Create new groups ‘Create New Group’ button
- ‘Edit’ or ‘Delete’ groups
- Users or groups can be members of groups

Note that you do not need to manually add users to the "anonymous" group - all users are members implicitly.

Warning - if you try to delete a group that is referred to by an authorization policy or is a workflow group you will get an internal server error.
Item authorizations

- Edit an item’s authorizations
  - Edit an item

- Assign policies to:
  - The item
    - It’s bundles
    - It’s files

- Policies assigned to groups not users
  - ANONYMOUS group for anonymous access
Collection authorizations

- Edit a collection’s authorizations
  - Edit a collection

- Collection administrators can act as administrators for a collection (edit items)

- Assign policies to the collection:
  - READ / WRITE / ADD / REMOVE
  - DEFAULT_ITEM_READ / DEFAULT_BITSTREAM_READ
  - COLLECTION_ADMIN
- Create a new user
  - `[dspace]/bin/create-administrator`
- Log in to ensure they are an administrator
- Remove them from the Administrator group
- Log back in to ensure the user is not an administrator anymore
Alternative authentication systems - LDAP

- LDAP
  - Lightweight Directory Access Protocol
  - Most institutions run an LDAP system to provide a central user password system
  - Active Directory has an LDAP interface
  - Users can be created using LDAP queries
  - Passwords not stored in DSpace
Shibboleth
- A devolved authentication system
- Allows users to log in to systems outside their institution
- A user’s local institution performs the authentication
Alternative authentication systems – IP authentication

- IP authentication
  - IP address of user (no login required)
  - If the IP address matches (e.g. is ‘on campus’) then the user becomes a member of a special group (e.g. ‘Internal-users’).
  - That group can be assigned privileges
  - Can be used to protect internal resources, and fallback to a requiring a login
    - Stackable authentication
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