

DSpace: Administration

Mukesh Pund

Principal Scientist

CSIR-NISCAIR

Introduction to DSpace System

- **DSpace captures your data in any format**
 - in text, video, audio, and data.
- **It distributes it over the web.**
- **It indexes your work,**
 - so users can search and retrieve your items.
- **It preserves your digital work over the long term.**

DSpace provides a way to manage your research materials and publications in a professionally maintained repository to give them greater visibility and accessibility over time.”

www.dspace.org

Introduction to DSpace System

Repository:

A repository is an on-line open archive which makes available scientific literature (pre-prints, lectures, thesis, etc.) in digital form. Archive content usually is not subject to peer-review, but every repository has its own internal policies which regulate the archiving.

DSpace...

- **Captures**
 - Digital research material directly from the creators
- **Describes**
 - Allows descriptive, technical, and rights metadata
 - Assigns persistent identifiers
- **Distributes**
 - Searches metadata & full text
 - Delivers content over the web
- **Preserves**
 - Content in supported formats for long term preservation

DSpace administration

- **DSpace administration involves a whole range of tasks the administrator has to perform for successful creation and maintenance of a digital repository.**
- **When we first configure a digital repository using DSpace, we begin with creating Communities and collections.**
- **While creating communities and collections, we also have to take a decision with regard to whom or which group can submit digital items to each collection.**
- **In addition, we also have to take a decision on who or which groups of members (E-people) are authorized to review, approve and modify metadata of submissions.**

Steps in Administration

-Essential Steps

Some steps in performing the DSpace Administration are essential and some are optional. These steps have been enumerated here.

- 1) Create Users who will act as reviewers, metadata editors, approvers
- 2) Create Communities
- 3) Create Collections
- 4) Create Collection authorizations

Steps in Administration - Optional Steps:

- 1) Creating Sub-communities
- 2) Creation of Groups
- 3) Modifying *Dublin Core Registry* (Discouraged)
- 4) Adding additional file formats to *Bitstream Format Registry*
- 5) Modifying or Deleting Digital Items
- 6) Handling *News*

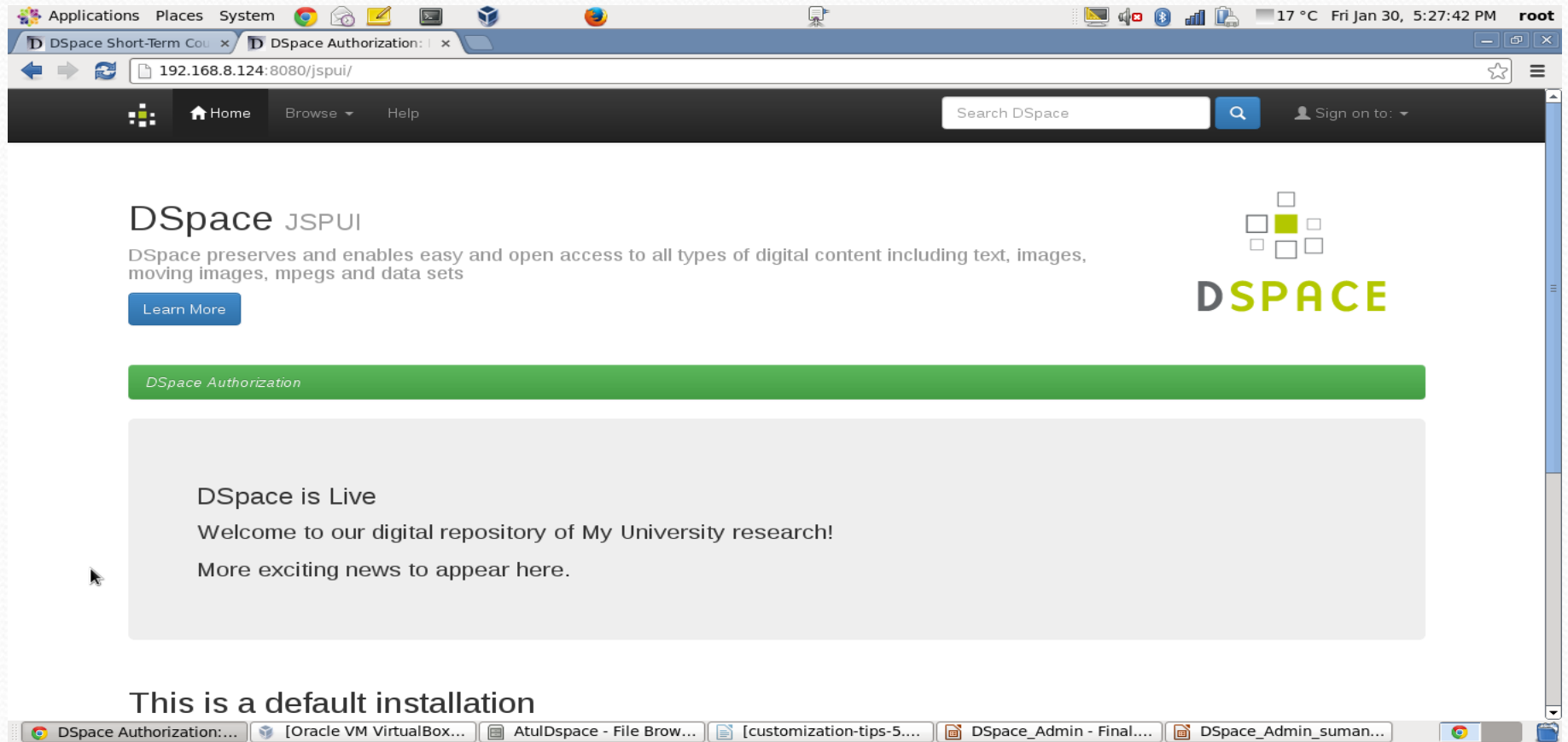
Default Dspace Home

For example: <http://localhost:8080/jspui>

OR

http://server_ip_or_server_dns:8080/jspui

Default Dspace Home



The screenshot shows a web browser window displaying the DSpace JSPUI home page. The browser's address bar shows the URL `192.168.8.124:8080/jspui/`. The page features a navigation bar with links for Home, Browse, and Help, along with a search box and a sign-on option. The main content area includes the DSpace logo, a description of the service, and a green banner for DSpace Authorization. A central message box states "DSpace is Live" and welcomes users to the digital repository. The footer indicates that this is a default installation.

Applications Places System 17 °C Fri Jan 30, 5:27:42 PM root

DSpace Short-Term Col... DSpace Authorization: | x

192.168.8.124:8080/jspui/

Home Browse Help Search DSpace Sign on to: ▾

DSpace JSPUI

DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets

[Learn More](#)

DSpace Authorization

DSpace is Live
Welcome to our digital repository of My University research!
More exciting news to appear here.

This is a default installation

DSpace Authorization:... [Oracle VM VirtualBox... AtulDSpace - File Brow... [customization-tips-5... DSpace_Admin - Final... DSpace_Admin_suman...

Login Into Dspace

For example: <http://localhost:8080/jspui/password-login/>

OR

http://server_ip_or_server_dns:8080/jspui/password-login/



- My DSpace
- Receive email updates
- Edit Profile

DSpace JSPUI

DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets

[Learn More](#)



Log In to DSpace

[New user? Click here to register.](#)

Please enter your e-mail address and password into the form below.

E-mail Address:

Password:

[Log In](#)

[Have you forgotten your password?](#)



Home

Content ▾

Access Control ▾

Statistics

General Settings ▾

Help

Logged in as admin@gmail.com ▾

DSpace Authorization

Administration Tools

Please select an operation from the main menu.



Theme by

DSpace Software Copyright © 2002-2013 [Duraspace](#) - [Feedback](#)

DSpace: data models

There are five main entities which are the hub of information structure and aggregation in Dspace

Communities: an administrative/logic grouping of one or more collections (and sub-communities); eg. faculties and departments in a single university, centers for geographically distributed organizations; projects/research area, etc...

Collections : a grouping of items which are analogous for tipology (metadata) and workflow; currently collections are the fulcrum of archive customizations

DSpace: data models

Item: a box which contains both a document metadata and one or more bitstream bundles

Bundle: a grouping of bitstreams used to separate the original documents, those obtained from automatic process, (such as full-text extraction), archival and Creative Commons licence

Bitstream (= digital content, usually a fulltext)

How a digital repository is organized in DSpace

- **Communities (Top level)**
- **Sub-communities (a set of collections)**
- **Collections (a set of items)**
- **Items (digital documents)**
- **Bundles (more than one bitstream)**
- **Bitstreams (files having content)**

Examples of Communities

- **Information Sciences**
- **Natural Sciences**
- **Humanities**

Can be anything intuitive to the end user of your repository



DSpace Authorization / Administer

Create Community ?

Community's metadata

Name:

Short Description

Introductory text (HTML):

Copyright text (plain text):

Sub-Communities

- **Under Science one can have sub-communities as**
- **Science**
 - Botany
 - Chemistry
 - Zoology

Further division?

- **Sub-communities can be divided into further sub-communities, such as**
 - Chemistry
 - Inorganic Chemistry
 - Physical Chemistry
 - Organic Chemistry



Information Sciences Community home page



Admin Tools

- Edit...
- Create collection
- Create Sub-community
- Export Community
- Export (migrate) Community
- Export metadata

Recent Submissions [RSS 1.0](#) [RSS 2.0](#) [RSS](#)

Browse

Issue Date	Author	Title	Subject
------------	--------	-------	---------

Sub-communities within this community

[Cloud Department](#)

Collections

- **Under each community or sub-community, you should have collection(s).**
- **It is the collections that contain items (digital documents)**
- **Communities or sub-communities can not have items directly under them**

Collections

- **Collections can be organized by type of documents**
- **For example,**
 - Theses
 - Articles
 - Photographs
 - Presentations etc.

Again, it depends on users expectations

Collection

- **Items can be placed in a collection**
- **Example:**
 - A collection of theses
 - A collection of reports
 - A collection of How-tos
 - A collection of e-mails



Describe the Collection

Name:

Shown in list on community home page

Short Description:

HTML, shown in center of collection home page. Be sure to enclose in `<P>` `</P>` tags!

Introductory text:

Plain text, shown at bottom of collection home page

Copyright text:



Describe the Collection

Please check the boxes next to the statements that apply to the collection.

<input checked="" type="checkbox"/>	New items should be publicly readable
<input checked="" type="checkbox"/>	Some users will be able to submit to this collection
<input type="checkbox"/>	The submission workflow will include an <i>accept/reject</i> step
<input type="checkbox"/>	The submission workflow will include an <i>accept/reject/edit metadata</i> step
<input type="checkbox"/>	The submission workflow will include an <i>edit metadata</i> step
<input type="checkbox"/>	This collection will have delegated collection administrators
<input type="checkbox"/>	New submissions will have some metadata already filled out with defaults

[Next >](#)

Theme by

DSpace Software Copyright © 2002-2013 [Duraspace](#) - [Feedback](#)

Edit Group : COLLECTION_1_SUBMIT (id: 2) ?

Name:

After making changes to this group you must click the "Update Group" button below.

EPerson Members

ist user (user@gmail.com)

Group Members

Remove Selected

Select E-people...

Remove Selected

Select Groups...

Update Group

Many ...

- You can have any number of communities and sub-communities
- You can have any number of collections under a community or sub-community
- You can have any number of items in a collection
- You can have any number of bitstreams in an item
- An item can be mapped into any number of collections (to avoid duplication in case of items belonging to more than one category)

Items & Bitstreams

- **The Basic digital document is called an *item***
- **A bundle may consist of many files (*bitstreams* in DSpace parlance)**
- **Item can have one bitstream or a bundle of bitstreams**
- **Item requires metadata description, just as printed document**
- **Bitstreams do not have metadata**

Bitstream formats

- **Text**

- plain text, html pages, Pdf, word, ps, TeX

- **Images**

- Giff, jpeg, tiff etc

- **Audio**

- Wav, mp3, real audio, midi

- **Video**

- Mpeg, avi, mov etc

In fact...

- **Bitstreams can be any computer file**
- **NOTE: If the end user system has the software to run a bitstream or his browser has a plug in, one can view or play bitstreams**
- **DSpace is blissfully unaware of file formats, it just stores and disseminates them**

Ideal bitstreams

- **Use open standards to ensure long term preservation**
- **Think of the format which you can support in the future (migration across versions of the software)**
- **Avoid proprietary standards**

DSpace item consists

- **Bitstream(s)**
- **Metadata**
- **License**
- **Plain text or thumbnail of the bitstreams**

Items

- **Items are also referred as**
 - Digital document
 - Digital resource
 - Digital object

One ...

- **You can have only one**
 - Metadata to an item
 - License to an item
 - One access point to a bundle of bitstreams

People associated with DSpace DLs

- **Anonymous Users (anybody)**
- **Members, who wish to subscribe to a collection (one can not subscribe to communities). Also called E-person in Dspace**
- **Submitters (authors), who submit their publications to a collection (they should be members and have been authorized to submit).**

Contd..

People associated with DSpace DLs

- **Reviewers - members who are authorized to review submissions. They can either accept or reject submissions). Normally, they are subject specialists**
- **Metadata Editors – who validate the metadata. Normally, they are library professionals**

Contd..

People associated with DSpace DLs

- **Collection Administrators.** In a large digital repository collection administration can be delegated various E-groups.
- **They can choose the reviewers, metadata editors among members and decide the collection policy**
- **They are different from DSpace administrators, who have the overall responsibility and power. A kind of super-user**

E-Groups

- **DSpace calls the reviewers, metadata editors, collection administrators as E-groups**
- **It means, there can be more than one e-person (member) in any list of reviewers or metadata editors etc.**
- **Each e-group can be associated with one or more collections**
- **A member can be placed in none or more than one e-group**

DSpace Administrator

- **Create communities**
- **Create collections under each community**
- **Administration of E-People**
- **Creating E-Groups among E-People**
- **Authorizing E-Groups for each collection**

DSpace Administrator

- **Authorizing E-People for submission**
- **Authorizing E-Groups to workflows for each collection**
- **Various Authorizations at**
 - Community Level
 - Collection Level
 - Item Level
 - Bitstream level

DSpace Administrator

- **Can add local (non-standard) elements to Dublin Core**
- **Can add new bit stream formats**
- **Add Google Analytics**
- **Customization of E-mail alerts**
- **Modification of License for submission**

Workflow

- **An author submits her item i.e. enters metadata and uploads the digital item**
- **DSpace sends e-mail to the author informing, her item is under review**
- **All the Reviewers of a collection will receive e-mail, informing about submission**

Workflow – 1: Reviewing

- **When a reviewer logs on to Dspace**
- **He finds submissions in the task pool**
- **He can read the digital item, and can**
 - Approve it
 - Or reject or ask for modified submission with it with comments
- **Once it is approved, e-mail will be sent to meta data editors**

Contd..

Workflow – 1: Reviewing

- **If one of the reviewers completes her task, DSpace removes the submission information from the task pool of other reviewers**
- **Of course, it can not get back, the e-mails sent to other reviewers 😊**

Reviewing Policy

- Repository should have clear cut policy of reviewing.
- It is the reviewers and reviewing policy that make the difference between a good or bad repository.
- It does not depend whether it is commercial or government or open access repository

Workflow – 2: Metadata Editing

- **Though Dublin Core is meant for non-librarians, there can be some mistakes in the metadata**
- **Mistakes can be**
 - Spelling errors
 - Wrong choice of subject descriptors
 - Entering data in wrong fields

Workflow - 2

- **Once the metadata editor approves the item, e-mails will be sent to collection administrators**
- **Metadata editors can not reject an item**
- **They can either modify or approve only**

Workflow - 3

- **Collection administrators can either approve or reject an item**
- **Once he approves, the digital item gets committed to the repository, gets a persistent identifier and meta data gets indexed**
- **Item will be available for public access**

Workflow options

- **The entire workflow process is optional**
- **Whether you want none or one or more workflows is dependent on the policy of your digital repository**
- **If you wish, you can allow anonymous submissions that get published on your repository without any approval (most open and worst case)**

E-people 1-3 of 3

Query

Search

First < 5 Pages < 1 Page 1 Page > 5 Pages > Last

	ID	E-mail	Last Name↓	First Name	Language
Select	1	admin@gmail.com	DSpace	Admin	en
Select	2	user@gmail.com	user	ist	en
Select	3	saurabhdspace@gmail.com	dspace	saurabh	en

First < 5 Pages < 1 Page 1 Page > 5 Pages > Last

Close

DSpace Authorization / Administer

Edit Collection 123456789/6

Delete this Collection...

Collection's Metadata

Name: Enterprise solutions

Short Description

Introductory text (HTML):

Copyright text (plain text):

Submission Workflow

Submitters: Edit... Delete

Accept/Reject Step: Create...

Accept/Reject/Edit Metadata Step: Create...

Edit Metadata Step: Create...

Collection Administrators: Create...

Collection's settings

Item template: Create

DSpace Authorization / Administer

Metadata Schema Registry ?

ID	Namespace	Name	
1	http://dublincore.org/documents/dcmi-terms/	dc	
2	http://purl.org/dc/terms/	dcterms	Update Delete...
3	http://dspace.org/eperson	eperson	Update Delete...

Create a new schema by entering a namespace/name or edit an existing one by clicking the update button. The schema name must be less than 32 characters and cannot include spaces, periods or underscores.

Namespace: Name:

Save

Metadata Field Registry Schemas

Note: Adding a new field to the registry does not add a corresponding input field to the submit forms!

ID / Element / Qualifier / Scope Note

2	contributor	advisor	Use primarily for thesis advisor.	Update	Delete...
3	contributor	author		Update	Delete...
4	contributor	editor		Update	Delete...
5	contributor	illustrator		Update	Delete...
6	contributor	other		Update	Delete...

Add Metadata Field

To create a new field you must provide a unique element and qualifier pair. The qualifier may be left blank if desired and the element and qualifier cannot contain spaces, underscores or periods.

Element:

Qualifier:

Scope Note:

Add New

Move Field

To move one or more field, select the desired fields (use control-key to select multiple) and the target schema. If the target schema already has fields with identical names the fields will not be moved.

Bitstream Format Registry

Extensions are comma-separated lists of filename extensions used to automatically identify the formats of uploaded files. Do not include the dot.

When you add a bitstream format, it is initially made "internal" so that it does not appear in the submission UI before you've finished editing the format metadata. Be sure to uncheck "internal" if the format should appear in the submission UI list of formats.

ID	MIME Type	Name	Long Description	Support Level	Internal?	Extensions	
1	application/octet-s	Unknown	Unknown data format	Unknown	<input type="checkbox"/>	Extensions	Update
2	text/plain; charset=	License	Item-specific license agr	Known	<input type="checkbox"/>	Extensions	Update Delete...
3	text/html; charset=	CC License	Item-specific Creative C	Known	<input type="checkbox"/>	Extensions	Update Delete...
4	application/pdf	Adobe PDF	Adobe Portable Docume	Known	<input type="checkbox"/>	pdf	Update Delete...
5	text/xml	XML	Extensible Markup Lang	Known	<input type="checkbox"/>	xml	Update Delete...
6	text/plain	Text	Plain Text	Known	<input type="checkbox"/>	txt, asc	Update Delete...

DSpace Authorization / Administer

Administer Authorization Policies ?

Choose a resource to manage policies for:

- Manage a Community's Policies
- Manage Collection's Policies
- Manage An Item's Policies
- Advanced/Item Wildcard Policy Admin Tool

Advanced Policy Manager ?

Allows you to do wildcard additions to and clearing of policies for items or bitstreams contained in a collection. Warning, dangerous - removing READ permissions from items will make them not viewable!

Collection:

Enterprise solutions
Open source

Content Type:

item

Group:

Anonymous
Administrator
COLLECTION_1_SUBMIT
COLLECTION_3_SUBMIT

Action:

READ

Add Policy

Clear Policies

(warning: clears all policies for a given set of objects)

DSpace Authorization / Administer

News Editor

Add or edit text in the box below to have it appear in the **top box** of the DSpace home page.

You may format the text using HTML tags, but please note that the HTML will not be validated here.

News:

```
<h3>DSpace is Live</h3><p>Welcome to our digital repository of CSIR research!</p><p>More exciting news to appear here.</p>
```

Save Cancel

DSpace Authorization

Search

Search:

for

Add filters:
Use filters to refine the search results.

Results/Page | Sort items by In order Authors/record

Results 1-1 of 1 (Search time: 0.019 seconds).



- Describe
- Describe
- Upload
- Verify
- License
- Complete

Submit: Describe this Item ?

Please fill in the requested information about this submission below. In most browsers, you can use the tab key to move the cursor to the next input box or button, to save you having to use the mouse each time.

Enter the names of the authors of this item.

Authors

Remove Entry

+ Add More

Enter the main title of the item.

Title *

If the item has any alternative titles, please enter them here.

Other Titles

+ Add More

Please give the date of previous publication or public distribution. You can leave out the day and/or month if they aren't applicable.

Date of Issue *

Month:

Day:

Year:

Enter the name of the publisher of the previously issued instance of this item.



- Describe
- Describe
- Upload
- Verify
- License
- Complete

Submit: Describe this Item ?

Please fill further information about this submission below.

Enter appropriate subject keywords or phrases.

Subject Keywords

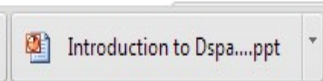
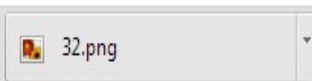
Enter the abstract of the item.

Abstract

Enter the names of any sponsors and/or funding codes in the box.

Sponsors

Enter any other description or comments in this box.





- Describe
- Describe
- Upload
- Verify
- License
- Complete

Submit: Upload a File ?

Please enter the name of the file on your local hard drive corresponding to your item. If you click "Browse...", a new window will appear in which you can locate and select the file on your local hard drive.

Please also note that the DSpace system is able to preserve the content of certain types of files better than other types. [Information about file types and levels of support for each are available.](#)



Select a file or drag & drop files ...

Please give a brief description of the contents of this file, for example "Main article", or "Experiment data readings".

File Description:

- < Previous
- Cancel/Save
- Next >




Select a file or drag & drop files ...

Files To Upload		
#	Name	Status
	Sql-server.docx	✓
	Networking.docx	✓

Please give a brief description of the contents of this file, for example "Main article", or "Experiment data readings".

File Description:

< Previous Cancel/Save Next >



- Describe
- Describe
- Upload
- Verify**
- License
- Complete

Submit: Verify Submission ?

Not quite there yet, but nearly!

Please spend a few minutes to examine what you've just submitted below. If anything is wrong, please go back and correct it by using the buttons next to the error, or by clicking on the progress bar at the top of the page.

If everything is OK, please click the "Next" button at the bottom of the page.

You can safely check the files which have been uploaded - a new window will be opened to display them.

Authors	author, Ist	Correct one of these
Title	Computer networks	
Other Titles	None	
Date of Issue	23-May-1992	
Publisher	None	
Citation	None	
Series/Report No.	None	
Identifiers	None	
Type	None	
Language	None	

Subject Keywords	None	Correct one of these
Abstract	None	
Sponsors	None	



Describe Describe Upload Verify License Complete

DSpace Distribution License ?

There is one last step: In order for DSpace to reproduce, translate and distribute your submission worldwide, your agreement to the following terms is necessary. Please take a moment to read the terms of this license, and click on one of the buttons at the bottom of the page. By clicking on the "Grant License" button, you indicate that you grant the following terms of the license.

Not granting the license will not delete your submission. Your item will remain in your "My DSpace" page. You can then either remove the submission from the system, or agree to the license later once any queries you might have are resolved.

NOTE: PLACE YOUR OWN LICENSE HERE
This sample license is provided for informational purposes only.

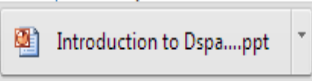
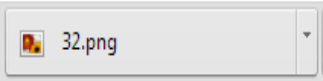
NON-EXCLUSIVE DISTRIBUTION LICENSE

By signing and submitting this license, you (the author(s) or copyright owner) grants to DSpace University (DSU) the non-exclusive right to reproduce, translate (as defined below), and/or distribute your submission (including the abstract) worldwide in print and electronic format and in any medium, including but not limited to audio or video.

You agree that DSU may, without changing the content, translate the submission to any medium or format for the purpose of preservation.

You also agree that DSU may keep more than one copy of this submission for purposes of security, back-up and preservation.

You represent that the submission is your original work, and that you have





- Describe
- Describe
- Upload
- Verify
- License
- Complete

Submit: Submission Complete!

Your submission will now go through the workflow process designated for the collection to which you are submitting. You will receive e-mail notification as soon as your submission has become a part of the collection, or if for some reason there is a problem with your submission. You can also check on the status of your submission by going to the My DSpace page.

[Go to My DSpace](#)
[Communities and Collections](#)

[Submit another item to the same collection](#)





Thanks