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# Data Management Tool

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Lecture: Data Management in Quantitative Biology  
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June 11, 2015

## **Abstract**

Bla bla blubb

## 1 INTRODUCTION AND MOTIVATION

- based on data → description how to store, analyze, integrate data [1], as well as meta information
- no existing standard, but DAMA-DMBOK as orientation which information are useful (!not complete!)[1]
- Essential aspects concern: - Data acquisition, standards, file formats - Data sharing - Data preservation [1]
- why manage and share data?
- making data available → can impinge positive on the work (concerning discovery and relevance) (<http://libraries.mit.edu/data-management/plan/why/>)
- nice picture of research data life cycle: <http://data.library.virginia.edu/data-management/>

## 2 RESULT: DMPCREATOR

The result of our implementation efforts is the user friendly webinterface DMPcreator. The tool is structured into five slides. Every slide...

The first slide, the *General Information Slide 2.1*, provides fields letting the user enter general information about his project, for example the project name, the person in charge of the project and contact data. Furthermore, the user can upload his .TSV file created by Q-Wizard. One important topic that needs to be covered when creating a data management plan is *Roles & Responsibilities 2.2*. This second slide allows the user to assign roles to persons. The chosen values are added two a responsibilities list. Having specified who is responsible for which data, the user still has to decide, how the data is stored. Here comes the third slide *ContentManagement2.3* in handy. Here the user can assign file types to an associated description. This so built content is then added to a content table.

Settings for Data Management Plan

### General Information

Provide some general information for your data management plan

Project Name

Institute / Organization

General Project Description

Person in Charge

Street

Experiment Design Upload from QWizard.  
 No file selected.

ZIP-code

City

Uploaded File:  
[TEACHING\\_DMQB\\_PROJECT\\_QUQUX.tsv](#)

Country

General Roles & Responsibilities

Figure 2.1: *General Information* Slide of DMPcreator. The progress bar is placed on the top. Fields that are fillable by the user can be seen below. Note, a special upload field for the .TSV file from Q-Wizard is visible on the left bottom.

Settings for Data Management Plan

### Roles & Responsibilities

Provide some general information for your data management plan

Select your role type.

Person in Charge.

Already chosen responsibilities.

Role_Type	Person_in_Charge
Asshole	Sepp Platter.

**About Roles and Responsibilities**

Scientists being aware of their roles & responsibilities maintain an efficient and productive working environment for everyone.

General Content Management

Figure 2.2: *Roles & Responsibilities* Slide of DMPcreator. The progress bar is placed on the top. Fields that are fillable by the user can be seen below.

General Roles & Responsibilities **Content Management** Storage/Backup Dissemination

Settings for Data Management Plan

### Content Management

Please specify here which data types including content will be occurring during the project.

Select your data type.  
CASH

Description

Add unfamiliar data type.

Add Content

Already chosen contents.

Datatype	Description
CASH	Sepp knows what's good for him.

Remove Content

About Content Management  
Having a clear overview over current work progresses and processes is the role of content management.

Roles & Responsibilities Storage/Backup

Figure 2.3: *Content Management* Slide of DMPcreator. The progress bar is placed on the top. Fields that are fillable by the user can be seen below.

General Roles & Responsibilities Content Management **Storage/Backup** Dissemination

Settings for Data Management Plan

### Storage and Backup

This section covers the topic of data storage/backup and archive.

Storage Location  
Sand

Select your backup solution.  
RAID 10

Select your archive solution.  
TAPE

Approximate disk space in GB needed for one PEPTIDES experiment:  
Approximate disk space in GB needed for one DNA experiment:

PEPTIDES Space  
200

DNA Space  
200

Total space in GB needed: 16000.0  
Required space for storage/backup chosen RAID solution in GB: 32000.0

About Storage and Backup  
The determination of rules for storage & backup contributes to a complete data management plan.

Content Management Dissemination

Figure 2.4: *Storage & Backup* Slide of DMPcreator. The progress bar is placed on the top. Fields that are fillable by the user can be seen below.

General Roles & Responsibilities Content Management Storage/Backup Dissemination

Settings for Data Management Plan

### Dissemination Methods

Provide some information for your data management plan concerning the sharing and access rules of your data.

Select your dissemination method. Description

Web

Add unfamiliar method.

Add Method

Already chosen methods.

Method	Description
Web	Trollolo

Delete Method(s)

About Dissemination

Determining the data dissemination clearfiles for every scientists when, where and how scientific data can be shared.

Generate Report

Download Report

Storage/Backup Dissemination

Figure 2.5: *Dissemination* Slide of DMPcreator. The progress bar is placed on the top. Fields that are fillable by the user can be seen below.

## REFERENCES

- [1] Sven Nahnsen. Lecture notes in data management in quantitative biology, April 2015.