Annexure 1

Effectively organize digital materials in SEDU

1. Background:

In SEDU, we use various digital materials such as Photos, Videos, Documents, Audio clips and etc., when conducting our day to day functions. Due to improper management of these materials, most of SEDU's computer hard drives are filled with duplicated materials. As a result, it takes long time to retrieve information when extremely needed and in some cases the data has lost or can't retrieve.

In order to overcome those difficulties, we have bought a Network Attached Storage (NAS) which act as a backup storage server. So we can access SEDU digital materials from each and every computer in SEDU and even through the Internet (Need prior user authorization). Therefore, we needs to come to a conclusion to organize those digital materials and should implement a backup procedure before copying existing materials to the NAS.

2. Digital File Management Strategy:

2.1. Multimedia Files

2.1.1. Photos

We cover(Photograph) every event, special occasion which is organized by us and we also upload those photos to Facebook and NIFS website. So we have three types of photos for a single event.

- A. Original Photo which is captured by the Camera.
- B. Retouched Photo which slightly edited from the computer.
- C. Watermarked Photo which will upload to the Facebook and websites.

Suggestion: Needs to delete unnecessary photos from the camera before editing it on the computer. After completing the upload process(to facebook and websites), it also needs to delete retouched and watermarked version from the computer. Finally, we have the selected original photos per event. So that can be used in the future.

2.1.2 Videos

We record special lectures, events from our video camera and we will upload those videos to the Youtube after editing. Therefore, currently we have the following versions with us.

- A. Original Video footages
- B. Edited video clip(final version)

Suggestion: Needs to delete unnecessary video clips from the camera before editing on the computer. After completing the editing process, needs to keep selected original video clips and the final version of the videos. If the final version(in high resolution) is uploaded to the Youtube, we can also delete it from the computer.

2.1.3 Source codes and project files of eProjects

We have various eProjects and other IT related products with SEDU. Each project has a project specific files and needs to keep those files in order to maintain those projects. Currently we have following files with us.

- A. Source codes
- B. Databases
- C. Project folder with project files

Suggestions: Needs to regularly backup all the source codes, databases and project files with the NAS. When developing/ Importing source files to project workplace, please use relative paths over absolute paths. Therefore the project can be accessed from another computer if needed.

2.2 Documents

Other than multimedia files, SEDU have the following events. The document which related to such events, can be categorized into two.

2.2.1 General Documents

- A. Conferences
- B. Seminars
- C. Workshops
- D. Symposiums
- E. Training Programmes
- F. Exhibitions
- G. Special Lectures
- H. Journal Clubs
- I. Lab Visits
- J. eProgrammes
- K. Grants

2.2.2 Administrative Documents

- A. Auditorium
- B. Assets
- C. Maintenance
- D. Human Resource

Suggestion : In order to maintain these files effectively, we can use the following folder structure.

2.2.3 Folder Structure:

EVENT TYPE/YEAR/MONTH/EVENT NO

The event number will be generated through NIFS Research Information repository.

Eg: Journal Club/2018/01/09

Each above file path contains the following folders.

/Photos

/Videos

/Audios

/Presentations

/Documents (letters, memos and etc.)

/Miscellaneous

2.2.4 File Naming Convention

When creating/ renaming files, we can use Camel Case format and separate information using an underscore. File naming should follow the following structure.

TYPE PROGRAMME NAME DOCUMENT TITLE INDETIFIER

Eg: Memo Solar Asia Bus Quatation Request

3. Using NAS in SEDU

NAS has 12 TB(1024GB * 12) available space to use. We will use it as follows.

- 5GB space will be allocated for everyone in the SEDU for common use. The documents which needs to available access for everyone can store here.
- 100GB space will be allocated for every computer in SEDU for store data except for the documents/materials mentioned in section 2.1 and 2.2 in this document.
- Other documents which has organized as mention in section 2 will be periodically backup to the NAS everyday.
- The files and folders in NAS can be accessed from the computers of each person in SEDU according to their access level.

4. Implementation Process

The following method will be used to implement the new digital material organizing policy.

- 1. First of all, we need to finalize the suggestions mentioned in this document. So we can attach this as an Annexure for SEDU IT Policies and Procedures(will link with section 4 and 9 of SEDU IT Policies and Procedure).
- 2. Currently we have a large amount(More than 5TB) of unorganized digital materials in SEDU. So we needs to convert them to the new format as soon as possible.
- 3. Every new file created after January 2018, needs to follow the above file management process.
- 4. A person who doesn't follow the above process, will be individually responsible for issues raised when managing digital materials.

5. Issues

- It may hard to follow those folder and file naming structure when working in a busy environment. However, using few minutes per day to organize those files may help you.
- 2. If Sarasa (NIFS ERP System) provides this feature and integrate NAS with Sarasa, we can use that software instead of this procedure. However, this document will be helpful to them when gathering requirements.

References

- 1. Lynn, A. (2017). *The Most Effective Way of Organizing Your Files and Folders*. [online] Asian Efficiency. Available at:
 - http://www.asianefficiency.com/organization/organizing-files-folders-documents/ [Accessed 24 Dec. 2017].
- 2. QNAP Systems, I. (2017). *Backup & Recovery :: QTS for home :: NAS :: QNAP*. [online] QNAP Systems, Inc. Network Attached Storage (NAS). Available at:

https://www.qnap.com/en/family_apply_v2/con_show.php?op=showone&cid=3 [Accessed 24 Dec. 2017].