WORKSHOP ON
DIGITAL TEACHING SKILLS

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Malta

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1. Introduction

e-Portfolio "the new generation of the three ring binder" (JISC, 2006)

2. What is ePortfolio?

The term ePortfolio is usually meant as a replacement for hard copy folder to showcase evidences of learning and qualifications. ePortfolio is created online using the web so that it can be accessed and shared anywhere but in recent years it has evolved into more of a personalised online learning system where one can access a variety of resources (such as documents, fora, contacts, where reflective journals can be stored, evidence can be submitted and so on). The key objective in using e-Portfolio is for students to take ownership of their learning, making their learning processes more personalised and enabling collaboration with others. This gives a sense of pride and achievement to the students (Butler, 2006). However the purpose of e-Portfolio is not merely to service the students’ needs as end users but to aid the individual’s personal development and to influence the development of others such as tutors, assessors, friends, and even the worldwide community. ePortfolio has the potential to make an impact on all participants;
“Learners and staff can use an ePortfolio to demonstrate their learning, skills and development and record their achievements over time to a selected audience. They have the potential to provide a central, linking role between the more rigid, institution-led learning management system and the learners’ social online spaces.” (Mahara, 2007).

3. Why we need ePortfolio?

You might wonder why ePortfolio exists if it is just meant for storing information, collection and management of evidences as proof of learning by students, as claimed by Challis (cited in Pitts & Ruggirello, 2012); there are, after all, lots of free online storage options available (such as Google drive & Dropbox). However ePortfolio has evolved since then. It is more dynamic with more communication options and more tools available to incorporate dialogue, monitor learning progress and promote personal development (JISC, 2013; Peacock & Murray, 2009).

The benefits of ePortfolio were well described by the Joint Information Systems Committee (2008) which stated that ePortfolio not only serves to submit formative assessments and evidences for summative assessments but can serve for wider communication and maintenance of CPD records. ePortfolio offers the following specific benefits to students;

- “improves understanding of the self and the curriculum
- engages and motivates learners, both individually and as part of a community of practice
- personalises learning
- supports models of learning appropriate to a digital age
- promotes reflective practice” (JISC, 2008)
Academic practice

- In academic practice ePortfolio can demonstrate the reflective learning and skills of a student, can evidence collections and publications and can be used as an assessment tool.

- Self-regulated learning and self-assessment help students to monitor their progress and the learner can become the author of his/her personalised learning.

- ePortfolio can help tutors and peer to give feedback and initiate group learning and share resources.

Career

- ePortfolio can help the individual to develop an up-to-date resume by recording educational qualifications, employment history, specific goals and skills which can be made available as a web page to potential employers.

- Blogs, interests, publications, any audio and video file can also be made available to others. One can receive better recognition for individual learning, reflective thoughts and sharing experiences from the outside community.

- For those who are already in employment one can showcase a record of formal and lifelong learning, sharing new ideas and interests which demonstrate professional growth and personal development.
4. Similarities and differences between LCM/CMS systems or VLEs and Social networking sites

The last decade has seen a technological leap in the way we adopt and use tools in our social, academic and professional life.

For teachers and students when it comes to technologically enhanced learning the choice of tool has to be based on sound pedagogical justification with both its purpose and benefits clearly identified. Every digital technological tool comes with its own advantages and disadvantages when compared. There are some tools with clearly defined functions and there are other tools with functions which complement each other.

- A major difference between ePortfolio and institution-based learning environments is that ePortfolio is where users or students control the information, personalise and take ownership of the content. Depending upon each institute’s policy, students should be able to access it even after their course completion.

- Learning Content Management systems (LCMS) and Course Management Systems (CMS) are usually part of large-scale IT infrastructures used for administration, delivering and managing variety of learning content (courses) such as Blackboard which is a paid subscription tool and the popular open source Moodle which is cost free. The LCMS software tool provides a virtual learning environment (VLEs) for students both in campus and off campus. All aspects of the learning process are shaped and controlled by the institute or organisation. Access to VLEs and course content are usually restricted to the duration of the course.

- ePortfolio is a social space for a given user and does have similarities with social networking sites such as Twitter and Facebook, offering services such as sharing your profile, blogging, inviting friends to your blog, embedding images and links. Although social networking sites are used by teachers and students to interact and share information they do not provide the full functionalities of an ePortfolio in terms of creating a resume, showcasing your evidences.
from academic and career areas, course work assessments, published articles (embedded files, images, videos) and feedback.

5. e-Portfolio - a personalised learning

An ePortfolio has a much broader scope as an online collection of reflections and digital Artefacts (such as documents, images, blogs, resumés, multimedia, hyperlinks and contact information). Learners and staff can use an ePortfolio to demonstrate their learning, skills and development and record their achievements over time to a selected audience.

Learning - Reflective learning, personalised learning, lifelong learning
An ePortfolio is an ideal tool for meeting the needs of established and emerging pedagogy and approaches to learning.
Reflective learning is “...a form of mental processing that we use to fulfil a purpose or to achieve some anticipated outcome. It is applied to gain a better understanding of relatively complicated or unstructured ideas” (HE Academy Guides for busy academics, Moon 2005, cited in Mahara, 2013)

6. Types of e-Portfolio software

There are a number of subscriptions based and open source based ePortfolios (Click the hyperlink to explore)
- Mahara (Popular at Universities, colleges in UK, USA, Australia, New Zealand and a number of other countries)
- **Google Sites** (Worldwide)
- **Moodle** (has built in plugins, it is more popular as LCMS/VLE, Worldwide)
- **Sakai** (it is more popular as LCMS/VLE, used in UK, USA, Canada & Asian Universities. In UK- University of Oxford also where ‘Moocs’ hosted)
- **Pebblepad** (Popular in UK and Australian Universities)
- **Elgg** (some US universities and firms)
- **Openschool ePortfolio** (few US Universities)
- **Digication** (some US Universities and colleges. You can use with Google account)

The choice is usually based on

- Cost, installation / hosting
- Upgrades, updates and security
- User-friendly with easy instructions and flexibility
- IT support, forum and user community support
- Ready-to-use plugins and integrates with other CMS/VLEs (example: Mahoodle which is Mahara integrated inside Moodle with single user login)
- Compatibility with popular browsers

List of e-learning tools and resources

ePortfolio-related Tools and Technologies (Updated 25/7/2013).
The list clearly the shows the impact of web 2.0 tools with the number of tools available

[http://epac.pbworks.com/w/page/12559686/Evolving%20List%C2%A0of%C2%A0ePortfolio-related%C2%A0Tools](http://epac.pbworks.com/w/page/12559686/Evolving%20List%C2%A0of%C2%A0ePortfolio-related%C2%A0Tools)
7. **Mahara open source ePortfolio**

(The following text is an extract from Mahara.org website used under creative commons licence)

Developed in 2006, the Mahara project started as collaborative venture funded by New Zealand's Tertiary Education Commission's e-learning with various Universities in New Zealand.

Mahara as an ePortfolio has a much broader scope as an online collection of reflections and digital *Artefacts* (such as documents, images, blogs, resumés, multimedia, hyperlinks and contact information). Learners and staff can use an ePortfolio to demonstrate their learning, skills and development and record their achievements over time to a selected audience.

What makes Mahara different from other ePortfolio systems is that you control which items and what information (Artefacts) within your portfolio other users see.

The image below shows the key features of Mahara ePortfolio which you can design and display the way you want.
What makes Mahara different from other ePortfolio systems is that you control which items and what information (Artefacts) within your portfolio other users see.

In order to facilitate this access control, all Artefacts you wish to show to other users need to be bundled up and placed into one area. Within Mahara this compilation of selected Artefacts is called a View.

You can have as many Views as you like, each with a different collection of Artefacts, and intended purpose and audience. Your audience, or the people you wish to give access to your View, can be added as individuals or as a member of a Group or Community.

ePortfolio owners create Views using a 4 step process and Views have the following features:

- ePortfolio owners can receive public or private feedback on their View and Artefacts within that View.
- Users accessing a View can report any objectionable material directly to the Site Administrator.
- Users can add Views and Artefacts within a View to their Watchlist and receive automated notifications of any changes or updates.
- ePortfolio owners can Submit a View for Assessment by a tutor or teacher allowing for a snapshot of the View and associated Artefacts on a certain date.

8. Other Features of Mahara

- File Repository
- Blogs
- Social Networking
- Resumé Builder
- Profile Information
- Administration
- Interface with Moodle
- Scalability
- Security
- Interoperability (Import/Export)
Mahara has vast features for you to explore and use its full potential. You can refer to the manual. Brief descriptions of the above features are given in the appendix section in this document.

9. MALTA ICT Workshop Requirements for participants

Please keep this ready for your workshop

1. Image or icon /avatar for your profile page
2. Other images you would like to share
3. Keep an electronic copy of your CV/Resume with details of goals, career history and educational qualifications.
4. Choose a research topic and collect information to share- education, e-learning, aquaculture practice, fish farming .. etc.
5. If you have published articles you would like to share or links do keep them ready
6. Any video (you tube) links, website links you would like to share keep a note of them
7. If you want to share interesting topics, questions... think about it

The Mahara 1.9 Version user manual (Pdf) is given separately. Please load a copy on to your laptop for reference. It is available from workshop hand outs / resource pack. Please ask your tutor for help if you need assistance.

IT resource

- Keep your laptop up to date with operating system.
- Update your web browser for speed and security
- Keep a pen drive ready for sharing resources
- You will have to access your e-mail to complete registration so keep one of your work/personal mail id ready.

10. ‘Installation’ and Registration

You can download Mahara software from the Mahara website and install in your existing Website hosting server or college / company website. Mahara is a database tool so it needs a server to host it. You might need your IT staff to help you with to install should your institute not have Mahara installed. There are many Mahara partners and private firms who would host the Mahara for a paid subscription so that the user does not have to worry about installation or upgrade.
For the purpose of this exercise we are using Mahara partner’s free registration website for us to practise and use it.

- **The Development Manager Ltd. (TDM)** are an Official Mahara Partner Organisation in the UK *(Free registration)*

  ![Mahara for Beginners](http://maharaforbeginners.tdm.info/)

  Once you fill in the online registration you will be sent an invitation to your given e-mail address from which you have to activate the link to complete the registration. From there on you have to refer to the Mahara user’s manual to start exploring.

- **Mahara Demo Web site** *(Free registration to explore new features of Mahara but your content has to be exported as it is only allowed for 24 hrs.)*

  [http://demo.mahara.org/]
11. Demonstration sites

- **Official Mahara Partners and demo sites**  
  [https://mahara.org/partners](https://mahara.org/partners)

- **University of Highlands and Islands**  
  [http://uhi-mahara.co.uk/](http://uhi-mahara.co.uk/)

- **Nottingham University**  
  [http://mahara.nottingham.ac.uk/](http://mahara.nottingham.ac.uk/)
Demo profile pages:

Saro Saravanan

Silke Reeplog’s profile page (UHI Research and Lecturer page with public access)
http://uhi-mahara.co.uk/view/view.php?id=2092
12. e-Portfolio workshop outline

Session 2 – 2 hours or more

13. Learning outcome 1-Activities

A. Registering & exploration
   (1) getting started, demo sites

B. Profile / resume creation
   (1) Image
   (2) Text blocks-educational qualifications, current activity, aims/goals

C. Editing and viewing (web page)

14. Learning outcome 2 - Activities

a. Folder, adding files, tagging and editing

b. Blog
   a. Adding image, creating blog topics and posts

   c. Linking files, folders, blogs in the profile page and sharing with others
      a. Edit settings

15. Learning outcome 3- Activities

a. Creating, sharing, editing, copying views (Web pages)
   a. Also look at best practice views
   b. Add images, columns, embedding Youtube videos
   c. Giving access rights to others

b. Creating groups, interaction and sharing
   a. Inviting other groups or users
   b. Group activity- sharing file
   c. Collaborative & reflective learning
d. feedback from users / assessment

c. Site settings & exporting ePortfolio
   a. Tutor and student roles
   b. Activity settings
   c. Notifications setting
   d. Copying and storing backups

16. Administration for institutes (Discussion and demo)
   a. Portfolio apps for android and IOS mobile platforms
   b. Integration with Moodle
   c. Demo example sites from various universities

17. Teaching and learning resources
   1) PowerPoint instructions for Workshop
   2) Mahara user’s manual  Pdf document – Given separately
   3) External resources as links – Given below
   4) Journal articles on ePortfolio- Given below

18. External resources and journal articles

   1. e-Portfolios in practice. A collection of resources to raise awareness, provide a common understanding and support the implementation of e-Portfolios in FE and HE in Scotland by Joan Walker (good collection of resources)
      http://www.scoop.it/t/e-portfolios-in-practice

   2. Effective Practice with e-Portfolios- Supporting 21st century learning
      http://www.jisc.ac.uk/media/documents/publications/effectivepracticeeportfolios.pdf
3. E-Portfolio evaluation, Edinburgh University
   www.qac.hss.ed.ac.uk/docs/.../Paper_0915_E_Portalio_Evaluation.doc

4. E-PORTFOLIOS EVALUATION REPORT – Imperial College, London
   http://www1.imperial.ac.uk/resources/E02C5058-A25E-4002-AAB1-A1588C364849/

5. ePortfolios and Mahara by Meredith Henson
   http://www.slideshare.net/maharaproject/eportfolios-and-mahara

6. ePortfolios: Advantages and Disadvantages for assessment
   by Eloise Tan, Online Lecturer, Educational Developer at Dublin City University
   http://www.slideshare.net/t_eloise/eport-13472802

7. The International Journal of ePortfolio (IJeP)
   http://www.theijep.com/current.cfm

8. JISC resources (Wealth of resources)
   - http://www.jisc.ac.uk/whatwedo/programmes/elearning/eportfolios.aspx
   - https://epip.pbworks.com/w/page/49330507/Video%20case%20studies

9. Summary of my ePortfolio Experiences by von Klaus Himpsl-Gutermann
   http://www.mahara.at/user/khimgut/summary-of-my-eportfolio-experiences

10. Mahara and Moodle integration- Mahoodle
    http://docs.moodle.org/25/en/Mahara_portfolio

11. History of Mahara
    http://www.slideshare.net/mbrownz/story-of-mahara
12. Enhancing reflective professional practice through the use of an ePortfolio: A UK case study


19. References


20. Appendix

Other Features of Mahara (source: Mahara.org)

File Repository

Mahara includes a file repository which allows users to:

- Create folder and sub folders structures
- Upload multiple files quickly and efficiently
- Give each file a Name and Description
- Manage their file allocation Quota
- When uploading a file users must agree to a configurable Copyright disclaimer.
- Can extract .zip, .tar.gz and .tar.bz2 from within the files area

Blogs

A comprehensive blogging tool is provided in Mahara, where blogs and blog postings are considered Artefacts and may be added to a View.

The blogging tool allows users to:

- Create blog posts using a WYSIWYG editor
- Attach files to posts
- Embed images into postings
- Configure whether or not Comments may be received on their blog
- Create draft postings for later publishing

Social Networking

Mahara provides a social networking facility where users can create and maintain a list of Friends within the system. ePortfolio owners choose whether other users can add them to their Friends list automatically or by request and approval.

An ePortfolio owner’s Friends lists shows those Views to which they have been assigned access.

Resumé Builder

Mahara includes a resumé builder which allows users to create digital CV’s by entering information into a variety of optional fields including:

- Contact and personal information
- Employment and education history
- Certifications, accreditations and awards
- Books and publications, professional memberships
- Personal, academic and work skills and
- Personal, academic and career goals
Profile Information

Within Mahara users are able to share details through a variety of optional profile information fields including:

- Preferred Name
- Student ID
- Postal address and contact phone numbers
- Skype, MSN, Yahoo & Jabber name
- Introduction
- Profile Icons images

Administration

Administrators are able to customise Mahara via a number of configuration settings which include:

- Language packages and themes
- Virus protocol
- Session and account lifetimes
- Authentication methods
- Institution setup
- Core page editor
- Main Menu editor

In addition with the Modular plugin structure of Mahara, Artefact and Block types may be configured, disabled or enabled, according to the organisation’s requirements.

Interface with Moodle

Mahara provides a single-sign on capability that allows users, at the option of the administrator, to be automatically logged in to both their Mahara and Moodle accounts by providing a username and password at only one of these sites.

The user can sign on at Mahara, and click on a link to her Moodle account, or sign on at Moodle, and click on a link to her Mahara account.

The single-sign-on feature runs over an encrypted transport, and the user's passwords do not have to be shared between sites.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit.

Scalability

Mahara has been designed as a web application with a plug-in architecture. This means it is possible to scale the application up by separating hardware for search, database, file storage and web servers.
It is also possible to replicate each of these operational components to further scale the system upwards. In addition Mahara is designed to:

- be load balanced across several web servers
- have a share file data from a centralised file server
- and have a separate database server.

This hosting set-up has proven scalability for similar systems like Moodle.

Security

- Mahara automatically detects system settings that a pose a security threat.
- Session key handling code has been tightly integrated with the core form/request APIs.
- Provides database abstraction that prevents any database injection attacks and input validation that prevents script injection attacks.
- User authentication can be tied to external systems such as student management systems or other databases such as their Student ID number.

Interoperability

- Mahara includes an Import/Export system with Leap2A support, and static HTML export.
- Users can place their views under any of the Creative Commons licenses.
- Mahara is built using PHP web scripting language and leverages PHP5’s OO features.
- All plug-ins follow a consistent structure and inherit from a common base class (core functions of plug-ins are implemented once)
- Mahara currently supports plug-ins for Artefacts, Authentication and Search. Therefore interoperating with an existing product simply requires the development of a plug-in.